

VALUE: AN EXAMINATION OF ITS KEY DIMENSIONS AND ELEMENTS THROUGH  
THE LENS OF SERVICE-DOMINANT LOGIC AND BEYOND

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This dissertation advocates that value and its creation are often misunderstood concepts since both lack robust comprehensive conceptual foundations from which to advance rigorous theoretical development and analysis. Furthermore, this dissertation characterized value as the subjective assessment of the total worth of benefits received for the price paid or costs, i.e. money, time, energy, etc. The purpose of this dissertation was to conduct a holistic examination of value through the lens of service-dominant logic (S-D) and several historical economic periods of thought.

I conducted a comprehensive S-D literature review in conjunction with a conceptual Boardman Soft Systems Methodology to develop a systemigram that captured the most critical S-D concepts and interrelationships to clarify its purpose and future research opportunities. During this process, value was recategorized and simplified into five primary dimensions, i.e. nature, perspectives, measures, storage, and creation. I employed Maslow's hierarchy of needs theory to illustrate that value at the lowest level of abstraction is the efficient satisfaction of human needs. I also investigated value creation and introduced a comprehensive value creation conceptual framework. Value creation is seen as a continuum of activity of key processes, i.e. value co-production, value in exchange, and value co-creation, and key procedural elements, i.e. actors, resource integration, ecosystems, services exchange, institutions and institutional arrangements as essentials to value creation. In addition, this dissertation also presented a Leyden value concept to the S-D lexicon. This concept complements use-value to capture associate upstream co-production activities and efforts as stored potential value.

This dissertation then employed this conceptual framework to perform two survey based empirical studies. The first tested Lusch et al. (2007) value-co-production framework and incorporated other constructs such as transaction cost, satisfaction, and future purchase intent into a single testable model. This study leveraged covariance based structural equation modeling with 477 respondents to simultaneously test the proposed model and advance Self Determination Theory and Transaction Cost Economics within the realm of value creation and S-D Logic. This research found that most of Lusch et al. (2007) hypotheses were supported and found statistical support for the inclusion of transaction cost as a construct that influences value-co-production. In addition, this study illustrated that value-co-production has a positive statistical association with satisfaction and its impact on consumer future purchase intent. Managerial, this study highlighted those customer characteristics and behaviors necessary to maximize value generation during co-production opportunities.

Finally, this dissertation empirically investigated the importance of benefits and equivalent cost reductions to entice consumer purchase intention across two different products and services scenarios. In total, this research gathered over 2,500 observations through a series of eight between subject survey experiments. This research found that consumers choose benefits such as warranty enhancements for new vehicle purchases and complementary desserts for dining experiences to enhance purchase intention. In addition, this research often revealed that consumers significantly decrease purchase intention when offered small value enhancements, i.e. 1% price reductions. This research also discovered that narcissism is negatively associated with those consumers who chose a donation to social causes. Finally, enhanced value offerings for expensive vacations, either through benefit enhancements or cost reductions, fail to significantly impact consumer purchase intention. The results of this research advance rational choice theory into the realm of value creation and S-D. Managerially, this

research found that benefits, whether singular or offered as a menu, are powerful tools for retailers to employ to enhance consumer purchase intention.

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background

Economics is a social science that emerged from the study of value, i.e. the management of scarce resources. While it possesses no universally accepted definition, today, the economics discipline primarily focuses on value centric activities such as resource allocation, coordination of wants and desires, and human decision making (Backhouse & Medema 2009). In the early 1900's, the Marketing discipline was borne out of Economics and it seeks to predict and explain various aspects of exchange relationships. Currently, the American Marketing Association employs value as a central concept that orients the marketing community (Sheth & Uslay 2007). Supply Chain Management is a discipline that seeks to understand network relationships and activities to enhance exchange interactions through value creation in both upstream and downstream flows of products, services, finances and information (Mentzer et al. 2001a). More importantly, each of these three disciplines remains grounded in the concept of value and its creation. It is a critical commonality between the three specialties and its importance cannot be understated as it serves as the fundamental purpose for all exchange. In addition, several researchers have advocated that value is critical to achieving competitive advantage (Stabell & Fjeldstad 1998; Woodruff 1997b; Newbert 2008). Recently, several scholars have called attention to the ambiguity and limited understanding of value and its creation (Grönroos 2011b; Lepak et al. 2007; Mahajan & Kabadayi 2017). In our examination of nearly 350 notable value related publications, the terms value and value creation were penned 21,319 times; however, most scholars do not define either. In addition, when either concept is defined scholars often fail to converge on a similar definition. These artifacts signify that value and its creation are important concepts, yet the meaning for each is often implicit within the cognizance of the

scholar. However, these researchers were not the first to highlight the ambiguity that characterizes value and its creation. Value and the debates concerning its meaning were also common in the late 19<sup>th</sup> century (Jevons 1879). Thus, this is not a new issue but one that still requires purposeful clarification and thoughtful examination to enhance future analysis and theoretical development. To present a holistic view of value, this dissertation sought to provide a mixture of both contemporary and historical definitions and descriptions of value and its creation.

## 1.2 Value and Value Creation Definitions

This dissertation assembled a vast array of value and value creation definitions and descriptions from the associate Marketing, Supply Chain Management, and Economics literature. What emerged were nearly twenty-five definitions of value and twenty definitions of value creation. Of those, this study hand-picked several differing views on the subject and categorized them by discipline to emphasize the lack of convergence. Table 1 highlights the result of this effort for value and its associate definitions and/or descriptions.

Table 1

### *Value Definitions and Descriptions*

<b>Value</b>	<b>Author(s)</b>	<b>Title</b>	<b>Publisher</b>	<b>Discipline</b>
Value is those things, which are transferable, limited in supply, and are directly or indirectly productive of pleasure or preventative of pain.	Senior 1854	Political Economy	London: Richard Griffin and Company	Economics
The idea of value has been broadened to include several value-added operational logistics tasks, such as packaging, third-party inventory management, bar coding, and information systems.	Mentzer et al. 2001b	Logistics service quality as a segment-customized process	Journal of Marketing	Logistics and SCM

*(table continues)*

<b>Value</b>	<b>Author(s)</b>	<b>Title</b>	<b>Publisher</b>	<b>Discipline</b>
Consumer's overall assessment of the utility of a product based on perceptions of what is received for what is given.	Zeithaml 1988	Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence.	Journal of Marketing	Marketing
Use value as the subjective valuation of consumption benefits by a consumer. Exchange value is the amount the consumer actually pays, representing revenue to a value system.	Bowman & Ambrosini 2000; Priem 2007	Value creation versus value capture: Towards a coherent definition of value in strategy / A consumer perspective on value creation	British Journal of Management / Academy of Management Review	Marketing
Value as something co-created with the customer and other value creation partners	Vargo & Lusch 2008c	From goods to service(s): Divergences and convergences of logics	Industrial Marketing Management	Marketing

Table 1, while not exhaustive, reveals that there are varying perspectives on the value concept but none that are holistic, i.e. imply all stakeholders and value creation processes. A few scholars outline value as being composed of use and exchange value, while others hint at multiple components to value, i.e. partners, value system, and upstream processes. More importantly, it is not the intent of this research to contend that any of these definitions or descriptions is inaccurate. Rather, the purpose of Table 1 is to highlight the depth and complexity of value and lack of metaphysical agreement amongst scholars. To support this point, other scholars have made similar observations regarding the difficulty in accurately defining value (Babin et al. 1994; Sweeney & Soutar 2001). Table 2 accomplishes a similar task for value creation.

Table 2, while not all-inclusive, reveals the vast and often contradictory descriptions of value creation. For instance, some scholars claim that value creation does not involve production activities while others advocate value creation at the organizational level includes innovation and learning, both of which can occur in production.

Table 2

*Value Creation Definitions and Descriptions*

<b>Value Creation</b>	<b>Author(s)</b>	<b>Title</b>	<b>Journal</b>	<b>Discipline</b>
Value creation is a process through which the user becomes better off in some respect (Gronroos, 2008) or which increases the customer's well-being (Vargo et al., 2008). Value creation is not an all-encompassing process. Consequently, design, development and manufacturing of resources, and back-office processes, are not part of value creation.	Grönroos & Voima 2013	Critical service logic: making sense of value creation and co-creation	Journal of the Academy of Marketing Science	Marketing
Enhanced Supply Chain Management capabilities can create efficiencies and cost savings across a wide range of business processes.	Horvath 2001	Collaboration: the key to value creation in supply chain management	Supply Chain Management	Logistics & Supply Chain Management
Corporate governance has recently become a critical step in the value creation process for organizations of all sizes. Stakeholder engagement and reporting, in addition to traditional financial reporting, seeks to produce and deliver relevant information to all participants in the value creation process	Smith 2015	Accounting, Governance and Stakeholder Reporting, and Economic Value Creation	The Journal of Applied Business and Economics	Economics
This notion is echoed by Merchant (2014), who states that value creation is not only multi-dimensional but depends on firm-specific factors. Steenkamp (2014) found that the processes and ways in which brand value contributes to firm value differ for different firms. In addition, Fabrizi (2014) found that the chief marketing officer of a company, if correctly incentivized, could contribute more to the value of a company than the chief executive officer, whilst Basuroy et al. (2014) found that executive compensation plays an important role in explaining firm value. A superior supply chain management system could also give a company a comparative advantage in value creation (Ellinger et al., 2012). An increase in share prices can be expected with an increased level of corporate social responsibility disclosure (De Klerk, de Villiers and van Staden, 2015).	Hall 2016	Industry-specific determinants of shareholder value creation	Studies in Economics and Finance	Economics

*(table continues)*



<b>Value Creation</b>	<b>Author(s)</b>	<b>Title</b>	<b>Journal</b>	<b>Discipline</b>
In G-D logic, value creation is associated with resource acquisition-primarily operand resources. In the G-D worldview, the firm specializes in the production of a type of good, the household specializes in a type of labor, and the money the household obtains from its labor is exchanged for the goods produced by organizations. In this case, one acquires the resource of the other: the firm seeks the labor from the household and the household seeks the goods the firm possesses. Under S-D logic, however, value creation occurs when a potential resource is turned into a specific benefit.	Vargo 2008	Customer integration and value creation: Paradigmatic traps and perspectives	Journal of Service Research	Marketing
Value creation at the individual level involves creativity and job performance, at the organizational level it may mean innovation and knowledge creation, and at the societal level it may involve firm-level innovation and entrepreneurship, as well as policies and incentives for entrepreneur-ship.	Sheth & Uslay 2007	Implications of the revised definition of marketing	Journal of Public Policy & Marketing	Marketing
Value creation is only possible when a good or service is consumed. An unsold good has no value, and a service provider without customers cannot produce anything (Gummesson, 1998). Value for customers is created throughout the relationship by the customer. The focus is not on products but on the customers' value creating process where value emerges for customers and is perceived by them (Gronroos, 2000). We agree with both Gummesson and Gronroos; the consumer must determine value and participate in creating it (Vargo and Lusch, 2004).	Lusch & Vargo 2006a	Service-Dominant logic: reactions, reflections and refinements	Marketing Theory	Marketing

While, value and value creation are commonly used terms each clearly has no universally accepted definition or description. Nor does this study advocate for such an outcome. However, this is a symptom of a much more important concern that has both practical and theoretical implications.

### 1.3 Problem Statement and Research Questions

The issue with resolving the meaning of value and its creation have emerged due to the tendency for scholars to consider these constructs as free-floating and mystical entities without first grounding them within a broader framework (Rust & Oliver 1993). However, this too is a symptom of the problem. This research advocates that value and its creation lack a strong comprehensive conceptual foundation from which to enable suitable analysis and theoretical development. This condition propagates the ambiguity that characterizes these related concepts.

This dissertation seeks to address four primary research questions: 1) What are the key concepts and interrelationships in Service-Dominant (S-D) Logic? 2) What are the dimensions of value and how should they be architected to enhance understanding? 3) How effectively does the Lusch et al. (2007b) framework in conjunction with the transaction cost construct explain co-production within a healthcare delivery context? 4) What influence do a menu of benefits and equivalent price reductions have on consumer purchase intent?

There are several gaps in the literature that this research seeks to fill. First, there is no scholarly convergence on the dimensions of value. Next, there is no comprehensive conceptual value creation framework that adequately capture all stakeholders, key processes and procedural elements. In addition, no study has empirically tested either transaction cost economics (TCE) or self-determination theory's (SDT) ability to explain and predict value co-production. Finally, no study has broadly examined the influence of a menu of value enhancements on consumer purchase intention.

#### 1.4 Research Design

This research employs a mixed method design where the literature, through an exploratory review, is mined for key value concepts and processes that enable value creation. However, to accomplish this task, this study requires a clear understanding of value and its brief history of interpretation and thought. In addition, this study seeks to articulate value creation and its evolution from the Neolithic Revolution to the Industrial Revolution and the current Digital Revolution. By doing so, this study aims to untangle the complexity and ambiguity that characterizes value and its creation. This study also organizes a survey with several original scales to investigate the antecedents to value co-production; one of three key value creation processes. This survey leverages Amazon Mechanical Turk to incentivize respondents to participate in data collection for further analysis within structural equation modeling. In addition, this research uses a series of between group experiments to understand the relationship between value enhancements and consumer purchase intention. This research executes these experiments through Amazon Mechanical Turk where respondents were incentivized monetarily to provide credible and generalizable responses. While Amazon Mechanical Turk has been scrutinized for its weaknesses, e.g. participants are less extraverted and have lower self-esteem than other traditional samples, recent studies have praised the crowd sourcing technique for its ability to produce reliable results and as a superior alternative to in-person data collection (Goodman et al. 2013; Rand 2012; Crump et al. 2013; Casler et al. 2013).

#### 1.5 Scope and Limitations

The purpose of this research is to primarily examine value and its creation through the lens of Service Dominant Logic. Additionally, this study also provides a comprehensive review of value literature that extends beyond the reach of S-D Logic to provide clarity on its origins and historical interpretations of its metaphysics. This examination is primarily limited to

exchange and economic value; not what is intrinsically or extrinsically good or bad as it relates to matters such as ethics, religion, and aesthetics, i.e. axiology. In addition, this study is not concerned with human values (plural), i.e. honesty, hard-work, family, etc. More clearly, the artifacts generated from this research are primarily designed for service encounters that directly or indirectly involve economic markets and exchange. While this study did examine the antecedents to value co-production, it did not include an empirical examination into the antecedents of value co-creation. However, other scholarly efforts have successfully addressed portions of this area of study (Yi & Gong 2013; Xie et al. 2008).

#### 1.6 Theoretical Implications

This study seeks to be one of the few that have successfully linked TCE theory into the S-D Logic paradigm (Paulin & Ferguson 2010; Prior 2016). Transaction cost, a key construct in this studies co-production of value model, is tested for its statistical relationship with value co-production via structural equation modeling. In doing so, this study seeks to disclose the importance of economizing transaction costs to enhance value co-production opportunities with patients in the health care delivery context. In addition, this study aims to codify the outcome of co-production activities as Leyden value, i.e. stored potential value, which aims to enrich the value creation lexicon. This study also explicates that value is generated not only in-use and in-exchange, through money flows, but also in these important upstream service network activities. Next, this study synthesizes many of the dimensions of value found in the literature and reorganize them into five distinct dimensions for ease of use and clarity. Moreover, this study seeks to clarify value creation by introducing a holistic value creation continuum that captures its key processes, i.e. co-production, value in exchange, and co-creation, and key elements, i.e. actors, resource integration, ecosystems, service exchange, and institutions and institutional arrangements within a single comprehensive and digestible conceptual framework. Furthermore,

this study postures and tests a co-production model that empirically extends SDT into S-D Logic. This study also contributes several original scales that were developed for scholars to leverage and test in other contexts and models. Finally, this study extends rational choice theory (RCT) into the realm of S-D Logic to explain exchange value creation.

### 1.7 Managerial Implications

This study produced several important artifacts that possess utility for practitioners. First, this study is a single source repository for value and value creation concepts, processes, and key elements. At first glance, value appears to be a simple concept; however, it is complex for several reasons. It can be viewed from multiple perspectives, e.g. public, shareholders, organizations, firms, and consumers. Value is both relative and amorphous (Wells et al. 2015; Zeithaml & Bitner 1996). This study advocates that it should be calculated by the inclusion of total benefits and cost. However due to the nature of value, no two entities will likely achieve the same evaluation. There are also multiple measures of value such as hedonic, utilitarian, functional, social, use, exchange, etc. With technological advances, value is scalable, e.g. computers, internet, crowd sourcing, YouTube, blogs, etc. There are many ways from which to store value, e.g. learning, books, manuals, tacit knowledge, money, processes, networks, experiences, intangible resources, rare resources, strategies. Value creation is complex as it can emerge in production, exchange, or in-use. Each of these dimensions of value and its creation add complexity, which this study seeks to explicate and present in a unidimensional manner for ease of understanding. In addition, this study verifies the necessary characteristics and behaviors that contribute to the co-production of value within the context of healthcare delivery. This is relevant as it provides empirical evidence for how patients should invest themselves into health care delivery to enhance and maximize overall value generation during direct interactions with service providers. It also provides awareness for health care providers as to the importance of

each of these factors from which they can use to educate patients to enhance overall value generation during direct service interaction opportunities. Finally, this study equips service providers with specific benefits that may be exploited to enhance consumer purchase intention; thus, potentially creating more value in-exchange.

## 1.8 Summary

The purpose of this research is to enhance clarity in value and its creation by reviewing its associate literature to purposefully untangle and organize multiple scholarly perspectives and interpretations. To fulfill this goal, this research also employs Maslow's hierarchy of needs to provide a solid conceptual foundation from which to view value at its lowest level of abstraction. The result of this effort culminates into a single comprehensive value creation conceptual framework from which to aid in meaningful future value debate and analysis. In addition, this study also tests several proposed antecedents to value co-production and measures its impact on satisfaction and customer future intention; thereby empirically advancing both TCE and SDT into S-D Logic. This data is analyzed with structural equation modeling and its results are explicated. Finally, this study conducts a series of experiments to examine a menu of benefits and those singular benefits that can enhance consumer purchase intention to arm service providers with an additional set of promotions which can enhance exchange value creation.

This dissertation is organized in the following manner. Chapter II provides an overview of the literature that covers S-D Logic, value, and value creation. Chapter III is where the mixed-method is explicated. Chapter IV will present research data analysis and results for both empirical studies. Chapter V will provide a summary, conclusions, future research suggestions and limitations of this dissertation.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Research Question 1

The purpose of this section is to outline many of the key concepts, interrelationships, and foundational premises that embody the S-D Logic paradigm. This section aims to answer the research question: 1) what are the key concepts and interrelationships in S-D Logic? The culmination of this effort results in two distinct products. The first is a conceptual framework of S-D Logic that highlights its key concepts and associate definitions from the literature. The second is a systemigram that includes only the most critical concepts and components of S-D Logic and how they interrelate. This dissertation leverages both artifacts to construct further conceptual frameworks and theoretical models, which are discussed in subsequent sections. However, a brief review of S-D Logic's predecessor is appropriate.

##### 2.1.1 From G-D to S-D Logic

Previous marketing paradigms that dominated the discipline, formalized into G-D Logic, assumed the classical economics view on value. From this position firms created and determined value which was subsequently destroyed by the consumer in the consumption stage. In addition, value was the equivalent to the price a consumer was willing to pay (Ramirez 1999). Oddly enough, S-D Logic lagged neoclassical economics by nearly a century, likely due to marketing being an immature field with its separation from economics at the turn of the twentieth century. Regardless, this Goods Dominant perspective exemplified a very clear distinction between firm and consumer and each actor's value roles and responsibilities. However, it fails to explain the relational and financial successes of companies such as Toyota, Amazon, and Harley-Davidson, where firms seek to establish long-term non-episodic relationships with its customers to enhance customer experiences that indirectly benefit the firm. To account for this phenomenon, S-D

Logic emerged which transformed this view into one where value is something that is co-created between firms and customers and other actors within a service system. While S-D Logic implies a strong focus on the beneficiary it also subsumes many of the perspectives that were fundamental to G-D Logic, i.e. co-produced value and value in exchange. However, the transition from a G-D Logic to an S-D Logic within marketing has a deeper history.

Gummesson et al. (2002) challenged the marketing discipline to develop new high-quality theory that should focus on a balance between production centers, customers, relationships and networks. Instead of developing theory that nested within the longstanding paradigm, Vargo and Lusch (2004) engineered S-D Logic to replace G-D Logic, which had arguably lingered in marketing far past its usefulness. Prahalad and Bettis (1986) described a dominant logic as a perspective from which managers conceptualize business and strategic decisions. S-D Logic is a progression of marketing thought that once centered heavily on a G-D Logic orientation. With regards to G-D Logic, Marshall (2009) explained that all things useful, beneficial and desirable were derived from material goods. Additionally, only two things fell outside the scope of goods and those include human qualities, i.e. ability and skills, and labor dues or personal services (Marshall 2009). Furthermore, within the G-D Logic paradigm value is found in goods through the process of manufacturing where goods are outputs and wealth directly correlates to the accumulation of tangible goods.

Initially, G-D Logic was introduced in the 1800s with economics and had a driving presence until approximately 1980 when other ideas eclipsed its prominence, i.e. relationship marketing, resource-based views, services marketing, etc. However, G-D Logic still possessed a respectable presence within marketing and only with the introduction of S-D Logic does it appear to be losing its utility as marketing seems to be breaking free of its grip (Lusch & Vargo



2006a). Grönroos (2011b) argued that S-D Logic didn't appear without notice; rather, Vargo and Lusch (2004) collected and packaged much of what was known about service marketing into an organized structure now popularly formalized as S-D Logic. It would be logical to argue that S-D Logic was a natural fit with the evolution of the United States economy from a manufacturing-centric economy to that of a service dominant economy. Regardless, it is now clear that S-D Logic provides a better perspective with which to view service, relationships, and value creation for both manufacturers and service providers. Table 3 juxtaposes G-D Logic to S-D Logic (Vargo & Lusch 2004).

Table 3

*G-D Logic and S-D Logic*

	<b>Traditional G-D Logic</b>	<b>S-D Logic</b>
Primary unit of exchange	Goods are exchanged and serve as operand resources	Services or knowledge and skills
Role of goods	Operand resources	Transmit operand resources (embedded knowledge)
Role of customer	Recipient of goods where marketers segment them, promote to them, etc.	Co-producer of service where marketers interact with customers
Determination and meaning of value	Determined by producer, i.e. exchange-value or price	Determined by consumer, i.e. use value
Firm-customer interaction	Customers are acted on to create transactions with resources	Customers are active participants in exchanges and co-production
Source of economic growth	Wealth is surplus tangible goods and resources	Wealth is the application and exchange of knowledge and skills

While G-D Logic provides a goods centric perspective, S-D Logic reorients the marketing discipline with a service-centered and relational view where value is determined by

the beneficiary through the service experience(s). Ballantyne and Varey (2006a) explained that goods such as an appliance can create a service when a customer interacts with it. Thus, a good within the S-D Logic paradigm is primarily a service delivery apparatus; not the firm's primary focus of attention. More importantly, from an S-D Logic perspective, manufacturers should no longer center on its own value chain or economize outputs to maximize value; rather, the concept of value co-creation with its customers through direct interaction or beyond the dyad is where value and satisfaction is primarily generated (Lusch & Vargo 2006b; Prahalad & Ramaswamy 2004). The advent and success of S-D logic represents a dramatic shift in marketing thought that illuminates the output of an interaction as a continuous generation of service experiences vice product-money exchange and sustained value co-creation over that of a single discontinuous transaction (Pels & Vargo 2009).

Vargo and Lusch (2008b) reported that value is always phenomenologically determined. This is an acknowledgement that value is continuously calculated by the user since each is unique with accompanying networks, knowledge, skills and needs. Moreover, value is determined in-use where the customer engages the service offering and integrates his or her resources to create an experience (Lusch & Vargo 2006c; Vargo & Akaka 2009). However, Vargo (2008) introduced value-in-context in response to the realization that each customer, as a resource integrator, has a network of service providers where value is determined in a broader sense versus an isolated consumer with limited access to resources. More recently, Edvardsson et al. (2011) argued that value should be viewed as a social construction since actors interact within social systems. Consequently, the authors introduced value-in-social-context to delineate the importance that social forces have on value determination. For example, the value of a service may depend on the level of value society deems appropriate. In other words, an actor's

perceptions of value can also be influenced by social perceptions of value (Edvardsson et al. 2011). The individualistic assessment of value can create a challenge for service providers since customers may not always know what they want or need. However, the value-in-use phenomenon can be marketed to customers through television advertisements. For instance, a commercial that portrays a customer enjoying the adrenaline rush derived from operating a high-powered sports car or vacationers consuming the sun at the beach. Thus, through an S-D Logic lens, marketers should focus on articulating the unique experience that the service could provide.

Dong et al. (2007) explained that wealth in the form of economic capital is attained through the collusion of operant resource between providers and consumers. In this dyad, each party co-creates value for the benefit of another in the form of a process. However, these two-party actions create a positive synergistic effect on overall value creation, where each actor benefits through collaboration to enhance current and future outcomes. For consumers, value is realized in-use where it is experiential and unique for each customer. On the other hand, for the manufacturer or service provider, value is realized, at a minimum, with the consumer's money, which masks exchange (Lusch et al. 2007b). Value for the firm could also be realized through customer driven design enhancements, i.e. beta testing products for improvements prior to mass market release or feedback mechanisms during post-production and sustainment activities. This is in contrast to G-D Logic, where value was created by the firm and determined in exchange, i.e. price for a good, and ultimately destroyed by the consumer (Vargo et al. 2008).

Innovation is an interactive activity that can substantially create value. Flint (2006) described innovation as a dynamic process that occurs between service providers and customers to generate value. Innovation can influence how customers co-create value and it can impact markets, prices, and actor profits (Michel et al. 2008a). Ordanini and Parasuraman (2011) found

that service providers who engage both outside stakeholders and direct customers leads to greater levels of innovation. Moreover, if service providers desire to improve performance through innovation, they should seek inputs from outside of the core organization, i.e. business partners, customers, etc. Furthermore, all innovation emerges through actor-to-actor resource integration, where innovation is a boundless activity of creation, ideas, and collaboration (Lusch & Nambisan 2015). Lee et al. (2012a) described co-innovation as a platform to create value through convergence, collaboration, and co-creation with partners, i.e. suppliers, outsiders, customers, etc. Thus, we suggest the S-D Logic lexicon adopt co-innovation as the appropriate terminology since all new idea generation emerges from actor-to-actor resource integration, where stakeholders, customers, and suppliers take on the co-innovators role (Mele et al. 2010). This suggestion, while seemingly minor, exposes an important distinction between an internal activity of innovating within the core of the service provider (the firm) versus the service provider continuously innovating with another actor or a network of actors (Vargo et al. 2015).

Vargo and Lusch (2016) explicated the importance of cooperation between actors within ecosystems and introduced FP 11, institutions and institutional arrangements, as a mechanism for enabling coordination and cooperative activities. However, the authors made it clear that markets are characterized by forces of both cooperation and competition. Thus, actors within an ecosystem can simultaneously cooperate and compete with each other. Brandenburger and Nalebuff (1996) described co-opetition as a combination of both peace and war, where companies could play multiple roles, i.e. complementors and competitors. Several researchers have documented this behavior within several market segments, i.e. supply chain networks, computer software industry, manufacturing, etc. (Casadesus-Masanell & Yoffie 2007; Kovacs & Spens 2013; Luo et al. 2016; Pathak et al. 2014). This paradox of simultaneous cooperation and

competition between actors within the market fuels our suggestion to incorporate the co-opetition concept within the S-D Logic lexicon.

The exchange market can be characterized by actors who co-create value, co-innovate, and co-opetate. However, Vargo and Lusch (2016) explained that service exchange activities occur within time and human cognitive constraints. Consequently, constraints served as an opportunity for us to further codify and broaden its application within the S-D Logic paradigm. Institutions and institutional arrangements serve many purposes. One such purpose is to reduce cognitive load on actors to enhance the co-creation of value (Vargo & Lusch 2016). However, constraints also define the limits of an actor's ability to co-create value. Williamson (1981) developed the concept of bounded rationality to represent the cognitive constraints that bound a manager's ability to effectively operate, i.e. limits in ability to receive, store, retrieve, and transmit information. In addition, market actors also face physical and time constraints that reside outside of human cognition. To appropriately capture and codify these constraints, we propose the S-D Logic lexicon adopt two types of constraints, i.e. objective and subjective. We define objective constraints as anything physical or related to time that constrain an actor's ability to co-create value. This type of constraint could represent a lack of material, access to or from, competing scheduling demands, etc. On the other hand, any constraint that would not fit within the realm of the objective should be classified as subjective. We define a subjective constraint as intangible barriers that constrain an actor's ability to co-create value. This constraint is used to describe human cognitive constraints, cultural norms, rules, laws, skills, knowledge, etc. Together, these constraints bind actors during interactions and resource integration to co-create value, co-innovate and co-opetate within a service ecosystem.

Through the lens of S-D Logic, customers are no longer strictly targeted and segregated for exploitation; rather, each customer is an active participant in the sustained co-creation of value (Vargo & Lusch 2004). For instance, a customer that buys a car at sticker price only creates value in-exchange under G-D Logic. On the other hand, from an S-D Logic view, every time that customer operates the vehicle, he or she co-creates value, which is value in-use or value in-context. In this instance, a customer may co-create value with the vehicle by using it to travel to work. To those skeptics that may second guess the merit of this co-creation of value example, at the bare minimum the vehicle consumes ground fuel, which when purchased helps provide tax funds used to create value for society, i.e. roadways, police, schools, etc. Thus, the mere act of operating a vehicle always co-creates value. Lusch et al. (2007b) reported that there is no value until a customer uses a provider offering. This implies that no upstream activities between a service provider and other service providing actors, e.g. value chain actors, create value in absence of customers; however, we believe interactions at these levels, in absence of customer use, can create value within the service ecosystem (Ordanini & Parasuraman 2011). More clearly, S-D Logic guides and orients attention towards use-value, i.e. co-creation, at the expense of diminishing the importance of value created in production or exchange.

There are several instances where the use of a value offering, at face value, may appear ambiguous. So, what if for instance a vehicle is parked in a garage and is never operated, i.e. a high-end sports car? In this example, the owner gains some sort of experiential value by owning the car, which nests within the logic of value co-creation since it is the consumer who always phenomenologically determines value (Vargo & Lusch 2004). The same could be said for a vehicle that is not high end but is kept in the owner's front yard while it collects rust. Within the boundaries of S-D Logic, the owner maintains possession of the rusted vehicle as it hosts some

type of value that is determined by the customer whether it is parked, driven, abused, etc. Thus, each of these episodes equate to a customer using a provider offering. In other words, use should not imply action. Moreover, each customer is unique and no two are congruent. Thus, value can only be determined by the customer within each unique context.

Chandler and Vargo (2011) introduced the importance of context and its role in service-for-service provision. Actors exchange through a specific context and within a contextual framework. More specifically, actors can exchange in a variety of ways, i.e. in a dyad (micro or direct exchange), triad (meso or indirect exchange), complex network (macro or simultaneous direct and indirect exchange), or through a service ecosystem (meta or all levels of exchange). Within this exchange sphere, actors operate in their immediate context while simultaneously reconciling tensions from indirect pressure generated through overlapping complex networks or ecosystems. In other words, the market is highly complex and exchange at the aggregate (all layers) can indirectly impact exchange at any single layer (Chandler & Vargo 2011). This explication illuminates the importance of context and how it shapes and influences exchange between actors in the pursuit of value.

Dong et al. (2007) explained that value co-creation benefits both the customer, i.e. lower prices and greater effectiveness, and the firm, i.e. increased efficiencies and greater service value. As a result, both customers and firms should seek opportunities to enhance value co-creation to reap an overall greater result for both entities. For instance, Ford motor company benefits when a customer purchases and drives its vehicle. In this case, the automobile is publicly advertised through daily over the road use to potential customers. If others perceive value in this Ford value proposition, then they may also purchase a Ford vehicle. Ford also acquires the initial customer's money. The customer co-creates value by driving but benefits

even greater if he or another similar customer, i.e. similar preferences, helped improve the vehicle with Ford during design. In other words, by interacting with Ford motor company during the design phase, the vehicle more adequately meets the needs of that consumer, e.g. age, income, etc. Consequently, both the firm and the consumer can create value through either indirect co-creation or direct co-production opportunities. It's pragmatic to see the application of this logic to other products and services, i.e. computer software, electronics, etc.

Value co-creation also occurs during direct interactions. Interaction is similar to an invitation for the purposes of value co-creation with other actors (Gummesson & Mele 2010). Grönroos (2008) reported that a firm cannot solely create value for its customers. Typically, the firm is an indirect participant in value creation by providing its customers inputs such as goods and services that are subsequently used to create value. However, there exist opportunities where the firm can interact with customers to directly co-create value, which is also a value proposition. As a result of this direct interaction, firms can gain detailed information about customer preferences to enhance future service offerings (Grönroos 2008). Vargo and Lusch (2011b) attempted to refocus attention to a much broader perspective than the business to customer relationship by introducing actors for generalization purposes since exchange and resource integration is not strictly limited to the producer-to-consumer dyad.

There are many opportunities to expand the concept of value co-creation. One such area that has not been studied heavily is negative value co-creation or value co-destruction. Harris et al. (2010) defined value co-destruction as, interactions between service systems that reduce the well-being in at least one of the systems. In addition, it is likely that not all consumers continuously co-create value at with the products and services they use, e.g. hoarders that destroy their homes through acquisition of excess products, people who smoke cigarettes or partake in



substance abuse, etc. Another area for future research is uncovering the determinants to an actor's propensity to co-create value. A few studies have examined the behaviors and characteristics that influence the co-creation of value (Yi & Gong 2013; Jacob & Rettinger 2011; Chen et al. 2015). Lusch et al. (2007b) posited six factors (expertise, control, physical capital, risk taking, psychic benefits, and economic benefits) that could contribute to a customer's participation in the co-production, now considered to be on a continuum of value co-creation, of a service offering (Lusch et al. 2007b; Chathoth et al. 2013).

The literature covering S-D Logic is vast with a sizable portion of its focus on service. Vargo and Lusch (2004) defined services as, "the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself." Lusch and Vargo (2006b) reduced services into a singular service to not imply units of output, which is more associated with a G-D Logic lexicon. Grönroos (2006) described service as a means for creating value for a customer. More specifically, customers should see themselves as better-off than before when compared to support they could have received from another competing provider (Grönroos 2006).

Edvardsson et al. (2005) conducted a 34-article literature search to analyze how the service concept was defined. Ultimately, the authors argued that the service definitions were overly narrow and offered a solution to view service as a perspective and that the concept of service is so broad and deep that it is deserving of its own research area. More specifically, the authors suggested future research to analyze service from the perspective of the customer and its impact on value creation. However, the author conceded that most scholars considered service to be activities, deeds, and interactions. More importantly, this description of service closely aligns with Vargo and Lusch (2004) definition of service.

Lusch et al. (2010) described economic activity as a service centric process which aims to seek and provide solutions. In other words, all economic activity is based upon service being exchanged for service at the benefit of another actor. Thus, all economies are service economies, which are described as foundational premise 5 in Table 2. Lusch and Vargo (2006b) described three ways that service is exchanged for service, i.e. operand resources embedded with knowledge, organizations and networks that integrate microspecialist exchange, and money.

Indirect and direct exchange processes constitute the core of S-D Logic. However, there are many important reasons why many exchanges in today's market are categorized as indirect exchanges. Direct exchanges primarily occurred prior to the industrial revolution where one consumer would trade his or her skills directly for another, e.g. a furniture maker might exchange a kitchen table for a wagon. However, over time advanced machinery fueled mass production, which powered the transformation from horizontal to vertical marketing systems. This production and marketing evolution compressed human skill sets to micro specialization where products were mostly created by multiple highly specialized workers versus a single broadly talented artisan. This type of vertical and bureaucratic organization within the market masked the service-for-service nature of exchange. However, that does not mean service is no longer the heart of exchange; it very much is. It is objectively more difficult to clearly visualize. The fog that lingered over exchange created many problems since workers within the bureaucratic organization were much more distant from customers. As one could imagine, quality suffered. In today's market, when a customer purchases a product embedded with knowledge it is often certified by a technician with an associate signature. This type of quality management practice among others was initiated to remedy many problems associated with indirect exchange processes. Ultimately, today's market remains a service-for-service exchange process but it is

blurred by vertical organization, mass production and indirect service provision activities that shield and insulate highly specialized organizational workers from customers (Vargo & Lusch 2004; Vargo 2009).

Another critical aspect to S-D Logic is the reliance on resources (operant and operand). Operant resources are the anchor for S-D Logic and it constitutes the knowledge and skills that are applied and exchanged between actors (producers and consumers) to co-create value. This contrasts with G-D Logic where operand resources were the firm's primary focus. In addition, operant resources are the primary source of competitive advantage within the global market. For instance, within the health care industry, specialists and general practitioners are rewarded primarily for their application of knowledge and skills towards the beneficiary or patient (Peñaloza & Venkatesh 2006). If their knowledge and skills are superior to the competition, they gain a positive reputation within the market, which attracts more demand and higher paying customers. Consequently, this enhances and sustains their survivability within the health care industry or service ecosystem.

Madhavaram and Hunt (2008) proposed a hierarchy of operant resources, i.e. basic, composite, and interconnected. Basic operant resources are the lowest hierarchical level, which include individual workers within a firm whose skills and knowledge produce value offerings. Composite operant resources emerge when two or more basic resources slightly interact to produce value offerings for the firm. Finally, interconnected operant resources appear when two or more basic resources highly interact and reinforce one another to produce value offerings. These basic resources that form each of the three levels within the hierarchy could exist within the firm or within and outside of the firm, e.g. a firm's basic resources interact with a supplier's basic resources. This results in a positive effect for the firm (Madhavaram & Hunt 2008).

Operand resources are the goods, products, and raw materials that are transformed by operant resources or embedded with knowledge under the S-D Logic paradigm. To a certain degree, this rightly diminishes the overall importance of operand resources for both the producer and the consumer. In today's market, firms should focus on providing a continuous service versus a discontinuous exchange of products. In addition, operand resources are also viewed by all actors (producers and consumers) as service delivery mechanisms (Vargo & Lusch 2008b). For instance, most customers do not desire to own a lawn mower; rather the service it renders. Thus, the lawn mower only provides value in-use or in context and is determined phenomenologically by the customer. Each customer is unique; thus, some may not value cut grass and may never purchase the services rendered by a lawn mower. For the producer, the relationship with the consumer does not end with the initial exchange; rather it continues beyond such that value generation continues for all actors. For example, the lawnmower may need additional parts to be replaced or servicing. This lengthens the relationship between the buyer and the producer. Thus, within the S-D Logic worldview value generation and relationships extend beyond what G-D Logic would consider as the initial exchange, where the product is purchased with money (Vargo & Lusch 2006). This represents a positive shift in marketing thought.

When S-D Logic transpired it was initially framed as an orientation towards service between a producer and a consumer. Overtime, this caricature morphed to an additional layer of abstraction where a buyer and a seller were no longer singular entities enacting a soloist role within the market; rather, each transitioned into an actor that performs multiple roles or assumes multiple identities, often simultaneously (Lusch et al. 2008). For instance, within a supply chain a manufacturer could be considered a customer to an upstream supplier while it could also be

viewed as a provider to a downstream buyer. Eliminating the distinction between buyers and sellers reveals a much more realistic viewpoint because often within the market consumers enact multiple roles, i.e. both consumer and producer or service provider.

With the maturation of S-D Logic, incorporation of service ecosystems emerged. However, this concept transformed from a service system to a value network and into an ecosystem (Vargo et al. 2008; Paul et al. 2009; Pels & Vargo 2009). Conceived by Maglio and Spohrer (2008), the authors described a service system as a configuration of technology, people, shared information, value propositions, and external service systems for the purpose of value co-creation. This concept formed the basis and foundation for service science and was subsequently adopted into S-D Logic as the unit of analysis to investigate service-for-service exchange (Vargo et al. 2008). Paul et al. (2009) incorporated other concepts such as families, cities, and companies to be viewed as service systems. Lusch et al. (2010) introduced the concept of value networks to capture a collection of aligned actors. More specifically, value networks are sensing and spatially responding entities composed of value propositioning social and economic actors purposed to co-create value. For instance, a supply chain could be nested within other larger value networks. Entities within the value network are continuously sensing customer preference changes and consequently adapt to future wants and needs, which enhances survival and growth within the global market. From a firm's perspective, survival is enhancing its role and importance within the value network or service ecosystem (Lusch et al. 2010). Pels and Vargo (2009) transformed the service system concept into a service ecosystem and suggested that its role in the market was as a resource integrator where each market transaction placed actors into complex mutual value-creating relationships. Moreover, within this service ecosystem view the firm to customer distinction fragments and all actors are both providers and beneficiaries within

the larger ecosystem. The word ecosystem by its nature also implies an environment within which exchange occurs between actors. Thus, context also plays a critical role as it shapes all activities within the ecosystem. Context could incorporate factors such geo-political considerations, taxes, natural disasters, supply shortages, etc. Therefore, an ecosystem is a system that resides in an environment that is shaped and influenced by contextual factors where actors seek to exchange service to co-creating value.

This study took interest into the survival concept. Ultimately, this study determined value creation was the primary objective or intended output of S-D Logic. However, a positive side-effect of enhanced value creation could be that of a firm or ecosystems ability to survive within the market. The survival concept, while briefly mentioned by Lusch et al. (2010), is derived from systems theory (Barile & Polese 2010). Barile and Polese (2010) explained that a firm's objective is to survive, and it must continuously seek to expand its capacity to survive. Even though several authors have suggested that competition is a secondary concern, an entities survival within the ecosystem must remain an important objective (Vargo & Lusch 2016). Consequently, we suggest the adoption of survival to the S-D Logic lexicon as an appropriate step.

Competitive advantage as inferred in the literature is also an objective of S-D Logic. As prescribed within S-D Logic, operant resources are the source of competitive advantage and are branded as foundational premise four in Table 2 (Vargo & Lusch 2004). However, its integration and employment throughout the entire service ecosystem to co-create value is what genuinely provides a competitive advantage. The sharing of information and the collusion of resources through strategic partnerships and relationships help increase and improve operant resources for all actors within the service ecosystem. With time, Vargo and Lusch (2016)

rebranded this concept to strategic benefit since the service provider can also assume the beneficiary role in a reciprocal service-for-service exchange with another actor.

### 2.1.2 S-D Logic Foundational Premises

Initially, Vargo and Lusch (2004) presented S-D Logic as a theoretical framework composed of eight foundational premises (FP). In fact, Vargo and Lusch (2008b) clearly explained that S-D Logic was not to be confused as a theory; rather as a foundation for theoretical development. More specifically, S-D Logic is an orientation towards sensible value co-creation across a dynamic network or service ecosystem composed of actors that are either providers or consumers acting on behalf of one another through mutual service provision. With the progression of S-D Logic, Vargo and Lusch (2016) reshaped the FP's with the addition of three and the branding of axiom status to five FP's (Lusch & Vargo 2006b; Vargo & Lusch 2008b; Vargo 2013). Table 4 captures the latest formulation of FP's and axioms within S-D Logic (Vargo & Lusch 2016).

Table 4

#### *Revised S-D Logic Foundational Premises*

<b>Foundational Premise</b>	<b>Description</b>
FP1 (Axiom)	Service is the fundamental basis of exchange
FP2	Indirect exchange masks the fundamental basis of exchange
FP3	Goods are distribution mechanisms for service provision
FP4	Operant resources are the fundamental source of strategic benefit
FP5	All economies are service economies
FP6 (Axiom)	Value is co-created by multiple actors, always including the beneficiary
FP7	Actors cannot deliver value but can participate in the creation and offering of value propositions
FP8	A service-centered view is inherently beneficiary oriented and relational

*(table continues)*

<b>Foundational Premise</b>	<b>Description</b>
FP9 (Axiom)	All social and economic actors are resource integrators
FP10 (Axiom)	Value is always uniquely and phenomenologically determined by the beneficiary
FP11 (Axiom)	Value co-creation is coordinated through actor-generated institutions and institutional arrangements

Several of the FP’s in Table 4 require explication beyond what has already been presented in this paper. FP 1 is a significant contribution to S-D Logic where the focus is on the application of knowledge and skills, later changed to service, as the fundamental unit of exchange. In this vein, operant resources and its application form the basis of exchange. Ballantyne and Varey (2006a) suggested that the unity of exchange was comprised of three parts versus one, where communicative interaction, relationship development, and services formulate the unity of exchange. This description of exchange provides a more detailed account of the exchange process where factors such as listening, trust, persuasion, etc., may influence outcomes (Ballantyne & Varey 2006a).

FP 2 highlights the difficulty associated with indirect exchange in an economy characterized by mass production, off-shoring, and globalization. Not in the too distant past, customers bartered goods or services in exchange for the like. As in one of the previous examples, a furniture maker could trade a handmade kitchen table for a wagon. If the wagon maker found a problem with the kitchen table, he or she would know precisely who to see for a solution. With progress, monetization replaced much of this direct exchange activity within business. As a result, money also masks the fundamental basis of exchange or service-for-service (Vargo & Lusch 2008c). Today, the independent furniture maker takes the money he earns and exchanges it for another service or a product embedded with knowledge and skills. As



a result, especially in the case of a product that transports the service, highly specialized laborers who apply operant resources can remain relatively anonymous in today's market.

FP 3 marks the transition from G-D Logic where goods are end products to goods being service delivery vehicles embedded with operant knowledge. For example, a washing machine delivers clean cloths and it has minimal value when it is not in use or out of commission; however, there may be a user that gains an experiential value of owning a defunct washing machine, i.e. antique, first edition Whirlpool, etc. But for most customers the value is likely determined when clean clothes are ready wear. Within the realm of S-D Logic all goods are distribution mechanisms for service (Vargo & Lusch 2008c). Thus, a barber likely possesses scissors for the service that it can provide to the customer and the tool retains little to no value when not in-use; however, it likely harnesses future value. Consequently, the challenge for service providers is developing value propositions that appropriately shape the experience to attain new customers and retain old. These propositions could take many forms, e.g. leasing a product for its service provision versus ownership and vice versa.

FP 6 underscores the important role that customers fulfill within the market or service exchange process. Customers are now co-creators rather than a target to be acted upon for the firm when compared to G-D Logic (Vargo & Lusch 2004). Etgar (2008b) explained that co-creation can occur in either the consumption stage or the prior stages, i.e. manufacturing and design. Ramaswamy and Gouillart (2010) reported that most firms work to create economic value; however, the most successful co-creator's focus on providing rewarding experiences for all stakeholders. Today's consumers can co-create value during the manufacturing stage on many items, i.e. cars, computers, etc. A customer can order a specific color car, with enhanced modifications prior to its delivery to the car dealership. Computers can be made to order; a

postponement strategy where the customer can select specific components based upon unique needs and desires. This type of co-creation occurs prior to in-use and arguably creates value for all stakeholders.

FP 7 is another S-D Logic factor that distinguishes it from G-D Logic. Within the G-D Logic paradigm goods were the source of value. However, within S-D Logic goods are merely embedded with knowledge that harnesses potential value for the intended consumer. Thus, value is only co-created during the customer's value creating process or in-use, e.g. mowing the lawn (Vargo & Lusch 2004). However, Kowalkowski (2011) explained that a provider's value offering may have little importance to an arm's length customer, who doesn't perceive the relationship as strategic or long-term. As a result, firms should seek knowledge that could enable them to appropriately shape value propositions with its customers. Frow and Payne (2011) disclosed that value propositions can enable the co-creation of value by acting as a value alignment mechanism between multiple stakeholders. Thus, value propositions, when properly shaped, can incentivize actors to co-create greater levels of value. Chandler and Lusch (2014) reported that propositions serve as invitations between actors to engage service. However; since all actors are unique, not all value propositions are successful. Thus, each actor calculates the value proposition based upon his or her perspective (context). Consequently, value propositions are viewed differently by each actor as circumstance and context influences the perception of the value offering (Chandler & Vargo 2011). One interesting area for future research could include describing a taxonomy of value propositions. In what shapes do value propositions take form, i.e. performance-based contracts, arm's length arrangements, etc.?

FP 8 reflects a central aspect of S-D Logic. Vargo and Lusch (2004) explained that the service centered view arises when providers do things both for and with the customer. This

could come in the form of customized solutions to problems, a tangible product or intangible service. Gummesson (2008) offered an alternative to this view where balanced centricity should be secured. Balanced centricity is considering the satisfaction of needs and wants from all stakeholders; not solely customers. Whether the view is on the customer or other stakeholders, what is truly remarkable is the subordinate role of the firm or provider. This marks a distinct transition away from a G-D Logic firm-centric view.

Lusch and Vargo (2006b) proposed FP 9 to underscore the importance of resource integration. Resource integration can occur when actors interact, e.g. the exchange of knowledge and skills. In this process, actors exchange ideas to refine or potentially innovate, which subsequently create value. Thus, over the course of exchanges, actors further develop and refine their operant resources to enhance current and future value generation opportunities.

Vargo and Lusch (2008b) introduced FP 10 to highlight the hedonistic determination of value on behalf of the customer or beneficiary. This highlights that every customer will view value that emerges through the lens of their own unique context with the basis of the benefits that are yielded in conjunction with the cost incurred. FP10 articulates that every customer is unique, and each determines value phenomenologically. However, this implies that value does not emerge or exist until it is used by the beneficiary; this study is an opponent of this myopic view. Perhaps the authors meant that value in-use is uniquely and phenomenologically determined by the beneficiary. This clarification would leave the necessary space for value to emerge in exchange and in production activities, which is what this study advocates and will explicate later in this chapter.

Vargo and Lusch (2016) presented FP 11, which represents institutions and institutional arrangements. The authors described institutions as a set of rules, symbols, norms, and meanings

for collaboration. Institutions can help reduce cognitive load, which can increase value generation, e.g. shared language, shared rules of the road, etc. These concepts help facilitate value co-creation and develop boundaries and appropriate service streams used for service provision. Both institutions and institutional arrangements prevent ecosystem overload and ensure efficient flows of mutual service provision. To further clarify, these concepts emerge from the self-governing and adjusting service ecosystems that exist to co-create value for the benefit of another entity or service ecosystem (Vargo & Lusch 2016).

### 2.1.3 S-D Logic Conceptual Framework

Overall, scholars have dedicated a vast amount of literature to the growth and articulation of S-D Logic. After a purposeful review of its body of knowledge, this study created a conceptual framework that includes 20 key terms and associate definitions. This study presents each with an associate author(s) for ease of reference in Table 5.

While this framework does not capture all S-D Logic terms, those incorporated seem to represent the most critical concepts within S-D Logic that this study garnered from the literature. Many of the concepts found in Table 5 were repurposed by this study in the development of the S-D Logic systemigram described in the next portion of this section and other key frameworks presented in subsequent portions of this dissertation. However, future research opportunities that emerged from the S-D Logic literature review are highlighted in Appendix A.

Table 5

*S-D Logic Conceptual Framework*

<b>Key Concepts</b>	<b>Definition</b>	<b>Author(s)</b>
Value Propositions	Invitations from actors to one another to engage in service	Chandler & Lusch 2015
Service	The application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself	Vargo & Lusch 2004
Resources (Operant/Operand)	Knowledge, skills, and abilities (operant) or products (operand)	Vargo & Lusch 2004
Value	Defined by and co-created with the consumer rather than embedded in output	Vargo & Lusch 2004
Value co-creation	Occurs at the intersection of the offerer and the customer over time, either in direct interaction or mediated by a good	Lusch et al. 2007b
Value-in-use	A customer's outcome, purpose or objective that is achieved through service	Macdonald et al. 2011
Exchange value	The treatment of value as embedded utility, or value added and price	Vargo & Lusch 2004; Lepak et al. 2007
Co-production	Involves the participation in the creation of the core offering itself. It can occur through shared inventiveness, co-design, or shared production of related goods, and can occur with customers and any other partners in the value network	Lusch & Vargo 2006b
Co-Opetition	The joint occurrence of cooperative and competitive behaviors	Xueming et al. 2006
Co-Innovation	A platform to create value through convergence, collaboration, and co-creation with partners, i.e. suppliers, outsiders, customers, etc.	Lee et al. 2012a
Survival	An entity enhancing its role and importance within a value network (service ecosystem) by continuously sensing customer preference changes and adapting to future wants and needs <i>(table continues)</i>	Lusch et al. 2010
Actors (Social/Economic)	Individuals, households, firms, nations, etc.	Vargo & Lusch 2008d

*(table continues)*

<b>Key Concepts</b>	<b>Definition</b>	<b>Author(s)</b>
Institutions	Rules, norms, meanings, symbols, practices, and similar aides to collaboration "rules of the game"	Vargo & Lusch 2016
Exchange (Direct/Indirect)	Direct service-for-service and indirect service-for-service. Co-creation of value is the purpose of exchange	Vargo & Lusch 2016
Institutional arrangements	Interdependent assemblages of institutions	Vargo & Lusch 2016
Service Ecosystem	Relatively self-contained, self adjusting systems of resource-integrating actors connected by shared institutional logics and mutual value creation through service exchange	Vargo & Akaka 2012
Context	Frames exchange, service, and the potentiality of resources from the unique perspective of each actor, and from the unique omniscient perspective of the entire service ecosystem	Chandler & Vargo 2011
Resource Integration	All economic entities are resource integrators that exist to integrate and transform microspecialized competences into complex services that are demanded in the marketplace.	Vargo & Lusch 2008a
Strategic Benefit	Highlights an important implication of the service-for-service conceptualization of S-D logic, namely, that the service provider also has the role of beneficiary, given reciprocal service exchange	Vargo & Lusch 2016
Interaction	The reciprocal action, or influence of persons or things on each other	Berthon & John 2006

#### 2.1.4 S-D Logic Systemigram

Systemigrams are an instantiation of systems thinking. Systems thinking seeks to view this complex world through a set of interdependent elements that create a whole where its properties are the whole and not the pieces or parts that come together to form it. Systems thinking orders the researcher's thoughts and centers attention towards the wholeness concept. Systems thinking embodies a big picture view, where all elements and aspects can be taken into consideration such that the idiosyncratic interactions between the elements can be analyzed and understood (Checkland 1981). It has been characterized as a method, tool, and theory that can be used to balance a myriad of perspectives for defining problems and articulating solutions. Its intent is to provide the researcher with the bird's eye view, such that one can more readily grasp the order and togetherness of the elements into a single, coherent system. This perspective enables a more highly defined understanding of the environment within which the system operates and how it does or should perform. Moreover, systems thinking can help identify synergies and other emerging aspects of the whole or system (Boardman & Sauser 2008). However, systems thinking on its own may not lead to solutions. Some people may discover interesting insights from systems thinking and may feel the need for nothing else; in other words, systems thinking on its own merit cannot solve problems (Forrester 1994). This study employs systems thinking by using it to understand S-D Logic. More specifically, we view S-D Logic as a complex system or a whole, which is connected through interdependent entities, actors, institutional rules, norms, standards, etc.

Systemigrams are networks designed to be read from the top left of the figure and end diagonally on the bottom right. Systemigrams help by purposefully ordering a complex problem

or system to make it into something easier to understand and digest for discovering new insights.

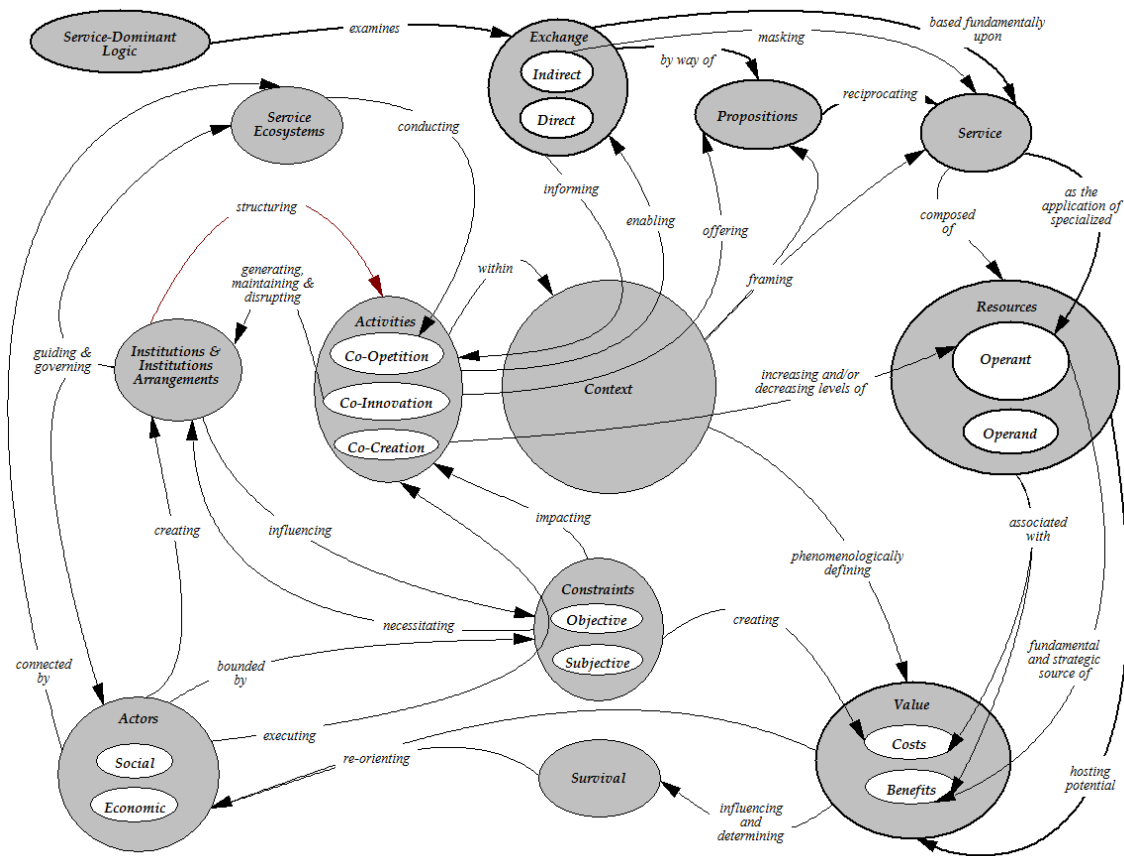


Figure 1. S-D logic systemigram.

However, there are several key rules and norms that a systemigram builder should follow to enhance the techniques effectiveness. First, there should be between 15 to 25 nodes within the systemigram that contain nouns phrases, key concepts, groups, people, artifacts, and conditions. Next, the links that connect the relationships should be action oriented with appropriate verb phrasing to illustrate how the two or more nodes interrelate. There should be no crossing of links, but links can penetrate and cross through nodes, if necessary. One of the goals in building a systemigram is to enhance topology as this will ease overall understanding of the problem or system under examination. Furthermore, the systemigram may be used to depict the “why,



“what, “how” of the system under examination (Blair et al. 2007; Squires et al. 2010; Cloutier et al. 2015). The following systemigram developed by Glassburner et al. (2018) is presented in Figure 1. It is the second primary artifact that resulted from the comprehensive S-D Logic literature review. It represents the purpose of S-D Logic, which is value creation, and all the essential concepts and associate interrelationships.

As shown in Figure 1, S-D Logic is a paradigm from which to analyze all aspects of exchange where social and economic actors continually propose and accept value propositions. One of its core tenets is a service-for-service orientation where actors apply specialized resources to co-create value. Through co-creation opportunities and non-episodic exchanges, actors are indirectly benefited by enhancing its survival within service ecosystems governed and shaped by institutions and institutional arrangements. The established rules and norms provide guidance and constrain actors that participate in co-production and co-creation activities. All activities occur within a specific context, which influences an actor’s perception of value (Vargo & Lusch 2016). While this description may appear vague, it provides the framework for a service based economic and relational exchange system. While value creation occurs throughout the entirety of the system, i.e. co-production and in-exchange, it is not fully realized by the beneficiary until the service offering is engaged in-use and within context. This implies that value perception is shaped by contextual factors, e.g. needs, wants, constraints, etc.

This study advocates that value is often the result of a beneficiary extracting benefits from a service offering, innovating with it, or co-producing with or between service providers to innovate value. More clearly, a beneficiary is a broad word recently introduced to replace customer; thus, it could be a consumer, or another service provider linked through a value chain (Vargo & Lusch 2016). Several discoveries in this study originated from the systemigram in

Figure 1. One area is the perspective of the many economic and social actors as it relates to perceived value; this is discussed in section 2.4.2. In addition, the importance of value and its subjective measurement as a trade-off between costs and benefits brought forth yet another important dimension of value explicated in section 2.4.3. One final primary discovery that emerged from producing this systemigram was the connection between Schumpeter's creative destruction paradox and value creation.

#### 2.1.5 Creative Destruction

Creative destruction is a term coined by celebrated Austrian economist Joseph Schumpeter to demonstrate how new creations can destroy industries. Schumpeter (1942) explained it as a, "process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one." This description of creations destroying creations is itself a paradox. Boardman and Sauser (2008) defined a paradox as, "an apparent contradiction." Baldwin et al. 2010 defined a systems paradox as, "a contradiction or some form of absurd perception related to a set of elements interacting for a purpose." More clearly, Baldwin explained, "For the international system, disorder is usually a cause for war which eventually results in peace. But international peace eventually leads to disorder resulting in war. The overall situation creates a war-and-peace paradox. If peace is the contradiction of war, then over time peace leads to war, but it is also true that war leads to peace. Since war and peace do not temporally coexist, the biconditional system paradox is fully satisfied" (Baldwin et al. 2010). For this study, an output of value creation could follow the systems paradox definition, i.e. creative destruction. More specifically, disruptive innovations, i.e. value created within ecosystems, could have the power to destroy and reorient ecosystems with time as a key component. This study can represent Schumpeter's creative

destruction paradox as an output of value creation through set theory. Let  $W$  represent a biconditional systems paradox (Baldwin et al. 2010), i.e. the creative destruction paradox. Set  $W$  is a subset of  $S$ , a transportation ecosystem. Thus, if  $z$  leads  $\sim z$  but when  $\sim z$  occurs, it leads to  $z$ , where  $z$  is ecosystem creation and  $\sim z$  is ecosystem destruction.

At some point during one of set  $S$ 's routine value creation cycles a new disruptive innovation occurred, e.g., the car. Over time, this creation displaced an industry of approximately 109,000 carriage and harness makers who were forced in the early 1900's to compete for employment elsewhere. One unfortunate aspect of creative destruction is the admission that some displaced workers will not find new employment (Alm 2008). At some point in the newly reoriented ecosystems value creation cycle a new disruptive innovation emerges and repeats the cycle, and so forth incessantly. However, to cope with this biconditional systems paradox, actors can reorient themselves by adopting an S-D Logic view by shifting focus away from providing goods towards providing continuous service streams for beneficiaries. For instance, under a G-D view a carriage maker would have likely been devastated with the introduction of the consumer car. However, for those actors that assume the S-D view, the carriage maker no longer constrains his thinking and positioning towards a tangible product, i.e. the carriage; rather he transforms his orientation to providing a service, i.e. transportation. It's a powerful conversion that could mentally afford him new innovative opportunities that would have otherwise been masked by an unnecessarily restricted vision. The S-D Logic mentality reorients the transportation service provider, not the carriage maker, to overcome and cope with, and possibly predict or create new disruptive innovations that would have otherwise led to the destruction of the profession (Vargo & Lusch 2004). One contemporary example of this type of thinking is American Airlines where

it views its service as connecting people, not flying passengers (Airlines 2017). As such, this mindset could open new opportunities and technologies that could surpass the efficiency and effectiveness of transporting passengers by airplane. Consequently, it could provide American Airlines a competitive advantage.

#### 2.1.6 Research Question 1 Summary and Conclusion

In summary, the purpose of this section was to outline the key concepts and interrelationships that embody the S-D Logic paradigm. The result of this effort provided two important artifacts. The first is a conceptual framework of S-D Logic that highlights its key concepts and associate definitions from the literature. This conceptual framework provided the lexicon from which to derive future research efforts within S-D Logic. The second is a systemigram that includes only the most critical concepts and components of S-D Logic and how they interrelate. This systemigram provided a large portion of the motivation to further research value and its creation. Other scholarly requests from the literature to clarify these important concepts also motivated this dissertation towards that goal (Mahajan & Kabadayi 2017).

## 2.2 History of Value

Value thought began with ancient philosophers and laid the foundation for early economic thought and analysis. However, as this brief review will highlight, economic value thought primarily focuses on exchange value or price. As previously highlighted, marketing does not outright neglect exchange value; rather, it incorporates it and primarily focuses on either value co-creation or value in-use, i.e. the S-D Logic approach.

### 2.2.1 Pre-Classical Economics

Olden philosophers such as Plato and Aristotle struggled to find the answer to a deceptively simple question. What is the good life? In hindsight, it's likely the answer to this question has no universally accepted answer; thus, it is an unproductive endeavor. Of course,

many could argue that the good life is health and happiness. But others may see the good life from a materialistic or financial aspiration. Ask fifty people and one may find some commonality in the response but it will likely vary greatly. This study proposes that the good life is the satisfaction of needs and wants in an efficient manner, i.e. the acquisition of value where one gets more than he or she puts in. Perhaps this statement more closely describes what Aristotle meant when he explained that a supply of external goods was needed for a good life (Jowett & Davis 1908). By design, this is not a prescriptive answer to the question, but it allows enough area in the response for extreme variation since everyone will desire a unique fulfillment of needs and wants. This statement assumes the most basic needs are met, i.e. food, water, and shelter. The expectation of high variance in response to the opening question is likely why Plato and Aristotle and many other philosophers struggled to satisfactorily answer the question. In other words, there is no universal answer, only characteristics and parameters. However, this topic begs other follow on questions such as: why do we have families, jobs, work with others, join communities or participate in wide associations (Gordon 1975)? Do I really need a wife? Frankly, I'm tired of compromising. I want total control. But how will I raise my child? Who will help me run the household? Perhaps this is the realization that no one can satisfy all wants and needs in isolation. Aristotle also explained that exchange is the reason for humans to assemble and interact. Thus, families need parents to appropriately raise children and operate a household. Wives need husbands and husbands need wives to fulfill needs and wants that one cannot fulfill in seclusion, e.g. security, comfort, love, etc. From an even broader perspective, firms need workers with specialized skills and abilities to perform critical tasks to satisfy requirements. People need markets to enable exchange that satisfies wants and needs. Simply put, consumers are value seekers with the end goal of efficiently satisfying wants and needs.

Each of the three key ideas in that statement, i.e. efficient, want, and need are highly subject terms. Thus, allowing for a wide degree of variance between consumers. However, ancient scholars do not necessarily agree on the topic of value or its metaphysics.

In hindsight, scholars and philosophers have assumed several differing interpretations of value. However, no single interpretation seems to accurately capture its core. This section will not attempt to document all historical value thought; rather, it will focus on the value highlights or those value beliefs that made the greatest contributions through history. One of the earliest known examinations of value occurred over 2,000 years ago in 350 BC when Aristotle described it as both in-use and in-exchange. He posited that value in-exchange for an article, i.e. the price it trades for, is determined by its use value, which is its utility to the consumer. Aristotle's utility theory of value however, fails to explain that a lack of demand for an article, regardless of its use value, would weaken its exchange value. This criticism will remain for several other scholars. Moreover, Adam Smith would later debunk Aristotle by observing that many things that are useful, e.g. water, have little value in exchange. Conversely, Smith would also highlight that things with relatively little utility, e.g. a diamond, would have a high exchange value (Smith 1827). Aristotle would also document his thought on the incommensurability of diverse articles, e.g. a house trades for how many pairs of shoes. He concluded that the only true measure of value was money, as this seemed to solve the problem of incommensurability (Johnson 1939). It appears that Aristotle meant the only pure measure of exchange value was money, which in his teachings was also influenced by the articles utility or use value.

#### 2.2.1.1 Saint Thomas Aquinas Just Price

In the thirteenth century, Saint Thomas Aquinas (1225-1274) was the first to introduce the notion of a just price. The concept represented the exchange value a consumer would pay in

absence of any fraud or monopolistic trading activities. In other words, exchange values were understood to be determined by the community based upon honorable production activities and what seemed to be fair for all exchange parties; not by the knowledge that we know today as the laws of supply and demand. More importantly, scholars have argued that Saint Thomas Aquinas position on value was determined by the cost of production. In hindsight, this notion of production costs determining exchange value may seem glib since it ignores the importance of consumer wants and needs for determining exchange value, i.e. demand. However, the reality is that during this timeframe the concept of value was much less understood when compared to today's knowledge infrastructure. Since during this timeframe the primary source of production was labor, it should seem rational to posit that the more labor a service provider used to develop a product or service would consequently strengthen its exchange value (Gordon, 1975). However, the notion of exchange value for all academic disciplines is best understood from the view of an economist where it is determined at the intersection of both supply and demand for any given product or service (Henderson 1922). This statement wholly ignores certain complexities of economics, such as the importance of government intervention needed to prevent price gouging during natural disasters or for those products and services that are demand inelastic, e.g. medicines and electricity. However, the intersection of supply and demand curves and its natural variance are those lagging factors which determine exchange value for most value propositions; hence its law status.

#### 2.2.1.2 17<sup>th</sup> Century Mercantilists

These scholars assumed a positivist approach in that the value of a commodity was the price for which it sold. This contrasted with earlier western thought that was more normative in that value was the price for which it ought to sell or the morally right price. In this era,

consumers knew what something should be priced for and consequently this was known as a just price. Thus, with disregard to what is now known as the laws of supply and demand, abnormal profits were viewed as immoral (Deane 1978). However, Francis Hutcheson incorporated the supply and demand aspects as it pertains to value where demand equated to desire, and supply illustrated the difficulty of acquiring such a good. Adam Smith layered Hutcheson's supply and demand criteria for value with an additional factor that considered income distribution, i.e. rich or poor, as component to demand. As previously explicated, Adam Smith clarified that many things that have great utility, e.g. water, are often vastly cheaper than other goods that have relatively little utility, e.g. diamonds (Deane 1978). Perhaps without know it, Adam Smith was highlighting the demarcation between value-in-use and value-in-exchange, i.e. that usefulness often does not determine price or value in exchange.

### 2.2.2 Classical Economics

Karl Marx originally coined the term Classical economics as a characterization of David Ricardo's economics. However, most descriptions of Classical economics also include the views of Adam Smith. The Classical period lasted approximately from 1790 to 1879 (Colander 2000). It is a paradigm that as a broad generalization focuses on valuing goods and services from the cost that it took to produce them. Adam Smith was one of the key founders of Classical economics. His book titled, "Wealth of Nations", sought to break apart from the mercantilist and focus on wealth not from a money aspect but from a free trade perspective. Moreover, Adam Smith penned important ideas such as the invisible hand, whereby self-interested economic actors create an overall good for society as a side effect of their personal economic ambitions (Smith 1827).



### 2.2.2.1 Adam Smith's Theory of Value (1723-1790)

Adam Smith, who lived through the Industrial Revolution, explained that value is observed with two different meanings, i.e. utility or value-in-use and purchasing power or value-in-exchange (Smith 1827). He also advocated that (exchange) value or price was determined by the input that went into production, i.e. adding up the per-unit cost of the associated land, labor, and capital (Samuels et al. 2008). Many of his followers also agreed to the notion that labor was one of the most acceptable determinants of value. Thus, if an artisan invested 100 hours into his or her product or service then the value for that offering would be at least equal to 100 hours of the artisan's time (Jevons 1879). However, this notion falls short in many ways. For instance, a higher level of provider input doesn't always equate to higher exchange or in-use value. This view also cannot explain why some businesses succeed while others fail. Regardless of input, the focus on consumer perception should also be regarded. In other words, what is produced should possess current and future value to the customer or a collection of consumers.

### 2.2.2.2 David Ricardo's Labor Theory of Value (1772-1823)

David Ricardo strongly believed in many of the ideas presented by Adam Smith, i.e. free trade and capitalism. However, he disagreed with Smith on value, i.e. the adding up of land, labor and capital production costs. While Smith believed in both exchange and use-value, Ricardo's labor theory of value advocated that the true value of anything exchanged is dependent upon the amount of labor that is needed to produce or provide it and its scarcity. For instance, while Smith argued that gold had relatively little use-value and high exchange value, Ricardo counters that gold which has little utility requires an extensive degree of labor to find, mine and extract it. Thus, in Ricardo's view value is derived by the level of labor required to produce it in conjunction with its scarcity. Ricardo also believed that some commodities were valued on

scarcity alone and could not increase in quantity regardless of labor. For instance, statues, fine art, scarce books, and coins are independent of the labor required to create them. Thus, Ricardo argued that these types of commodities were supply inelastic. Moreover, Ricardo also believed that the price for which a good or service sold for in the long-run would be a stable representation of the input required to generate it, i.e. natural price. While this perspective clearly considers supply factors, i.e. labor, it too fails to account for consumer demand. However, this was not through ignorance or accident as Ricardo believed that price resulting from both supply and demand was a source of error within the science of economics (Ricardo 1891).

#### 2.2.2.3 Karl Marx (1818-1883)

Karl Marx, who coined the term capitalism, is popularized for his negative opinions towards capitalist economies. He predicted that the working class, i.e. the proletariat, would eventually resist and overthrow the capitalists or the owners of production centers. His basis for such calculations were rooted in the capitalists' adverse treatment toward the proletariat, i.e. buying and using their surplus labor in exchange for cheap wages and poor working conditions. While much of this pre-nineteenth century treatment has improved, the capitalists often employ third world labor that resembles much of what Marx was describing. Given his penchant for the proletariat, it is fitting that Marx explained the general law of value is where the value of a commodity is equal to the quantity of labor that produced it (Marx 1910). Like previous scholars, output is measured in terms of labor hours where two differing commodities with equal labor hours shared the same value. However, any advances in technology that diminished the necessary labor to create a commodity would also diminish its value. For Marx, land and other natural resources did not absorb labor and were not used in value accounting. In addition, other

products that were used to create the commodity were accounted for via the labor hours required for its creation. A final tally on labor hours would be achieved in this fashion. Thus, total labor would determine the overall value of the commodity while discounting the value of scarce natural resources and land. However, Marx advocated that natural resources and land had immense use-value but no value (Huber 2017). It was Marx's belief that the capitalists were not interested in satisfying human wants and needs but rather in acquiring capital or profit. In Marx's view, this could also contribute to capitalism's demise where the satisfaction of wants is unseated by profit maximizing firms. Clearly Marx failed to see that the two objectives could be successfully aligned and were not necessarily in direct conflict (Niehans 1990).

To Marx and Engels, both of whom wanted to disintegrate the class structure, everyone was implicitly assumed to produce equivalent value (Marx & Engels 1998). In retrospect, this was a flawed view of the world for several reasons. People attain and develop different skill sets which produce varying levels of value. For instance, a company CEO produces substantially more value with every decision when compared to a wage grade employee. Alternatively, the CEO also has the potential to destroy more value. Marx would have labeled the CEO the capitalist but in today's economy the CEO is also an employee of the firm, not necessarily a fully autonomous owner. CEO's of publicly traded firms often answer to a board of directors who are responsible to shareholders which could also include company wage grade employees. In other words, there are not necessarily clear lines of division between classes of capitalist citizens. However, there are clear lines of division between the capacities of its citizens to create value. Not all skill sets are equal in their value creation capacity and sphere of value creation influence.

#### 2.2.2.4 William Jevons (1835-1882)

Many of Jevons ideas and writings led to the rise of neoclassical economics. He advocated that production costs determined the supply of a commodity and the supply of the commodity determined its degree of utility. More importantly, he believed that the final degree of utility determined a commodities value. He also argued that labor does not create the value in something; rather, value causes people to labor. For instance, prospectors will explore the world in search of gold because it has value. However, the lucky prospector who strikes gold on his first try will have the same amount of value in a pound of gold when compared to the unlucky prospector that unequally labored to extract a pound of gold. In other words, Jevons advocated that input is irrelevant. Working harder is strictly that. In fact, it creates diminishing returns on the amount of value that can be extracted. Jevons wrote that utility is not intrinsic in something that is traded. Utility is the additional happiness a person receives from the extra quantity of that something that is attained (Keynes 1936). For instance, a near starving human will greatly value a slice of pizza. However, each additional slice of pizza attained should diminish in value. This sparks several key ideas from contemporary S-D Logic literature. S-D Logic advocates that materials and products are embedded with value. Goods, products and materialized are viewed as value vehicles for consumers to interact with and extract value. Moreover, the value obtained emerges in-use (Vargo & Lusch 2008d). These two ideas are like Jevons writings on value. More interestingly, Jevons links the concept of value with the marginal utility that is obtained from that extra unit of something. This idea is like indifference curves, where a consumer will value less of something when it is possessed in high quantities. As the quantity possessed diminishes, the owner will value it more with each unit loss or vice versa (Hicks 1939).

### 2.2.3 Neoclassical Economics

Neoclassical economics was coined by Thorstein Veblen in his book “Preconceptions of Economic Science”, where he used it as a characterization of Alfred Marshall’s evolutionary economics (Veblen 2014). It is the current dominant economic thought that focuses on exchange and the interaction between factors such as supply and demand as being the key determinants to the exchange value of a good or service. It also subsumed the broad Classical themes developed by Smith, Ricardo, and Mill (Colander 2000). Consequently, it incorporates the demand side and human behavior factors, i.e. humans assumed as rational actors that seek to maximize individual outcomes. It also focuses on value decisions and the functioning of markets (Hall et al. 2001). It can also be characterized by an emphasis on equilibrium and the neglect of uncertainty. However, it has been described as difficult to define as the term is not used in a consistent sense by members from this field (Dequech 2007).

#### 2.2.3.1 Alfred Marshall (1842-1924)

Famed British economist Alfred Marshall was the father of what is now considered Neoclassical economics (Dixon 2002). While he was recognized as Britain’s leading economist for some 40 years he published only a single highly substantial book titled, “Principles of Economics” in 1890. This manuscript captured some of the most important economic thoughts into a single meaningful whole, i.e. supply and demand, production costs, and marginal utility that would lay the foundation for modern day economic analysis. Additionally, economists typically attribute Marshall as the first to graphically expose exchange value as the result of the intersection between the supply and demand curves. To highlight the importance of this price determining intersection, scholars refer to Marshallian scissors which is an analogy Marshall used to compare supply and demand curves with that of the upper and lower blades from a pair of scissors (Humphrey 1996). This leaves one to question, which blade determines a

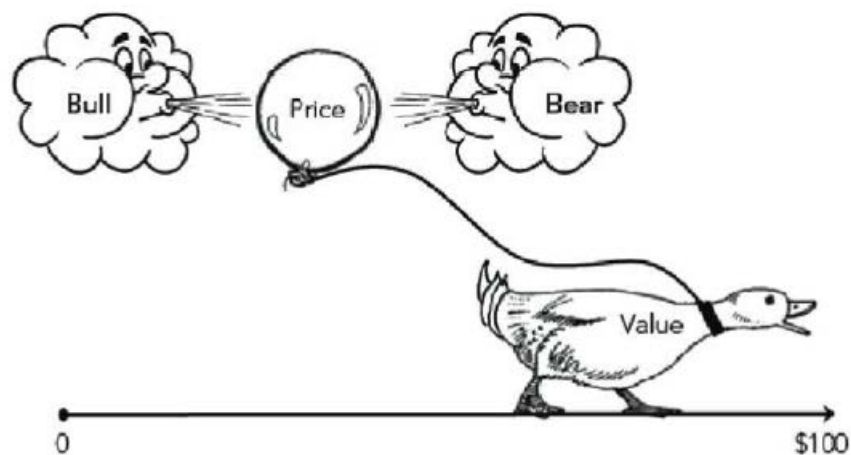
commodities price? While simplistic and well known today, the formalization of this concept launched economics into a more practical discipline that any laymen could interpret and apply.

Neoclassical economics brilliantly solves the value in exchange problem with its introduction of several key features. It incorporates an analytical production and consumption tool popularized as marginal analysis. This method principally explains and predicts how markets optimize the allocation of scarce resources. Within marginal analysis, providers only produce enough commodities or services that fulfill the optimal ratio of market price and the additional cost of per unit production. As more consumers demand a product or service the price will accordingly increase, which provides a feedback mechanism for providers to increase production capacity and vice versa. On the other hand, customers only purchase a mix of commodities or services in the same fashion; however, this approach considers human behavior and the maximization of a rational consumer's well-being within a constrained budget.

Marginal analysis essentially solved the value in exchange problem that classical and pre-classical economics never could because it incorporates both consumer behavior and production activities formalized through supply and demand curves. Thus, from a neoclassical perspective, value is equivalent to what something can be purchased in a market when it is in general equilibrium. This occurs when supply of goods and services equal consumer demand. Consequently, this type of free market activity ensures the optimal allocation of scarce resources in accordance with production capabilities and consumer behavior (Woo 1992). However, this is from a purely economic standpoint as it is problematic to exchange many essentials such as gravity, sunlight, etc. It also does not explain the value generated in upstream production activities, e.g. learning, research and development, or the value in consumer in-use activities. Accordingly, a hammer that could be used to build a house or a neighborhood of houses is only

valued at what it sells in a free market, e.g., eBay. In other words, the use value of a hammer far exceeds its exchange value when all the costs and benefits are considered; however neoclassical economics would disagree. Neoclassical economics also cannot explain other types of value generated on the sidelines of market exchanges such as the value one attains by walking through a beautiful city or the value one receives by feeling secure from a foreign threat. In the aggregate, a neoclassical economist might argue that this value is the cost to produce the city, i.e. the construction contracts, maintenance, police, schools, etc. But at the granular level, i.e. the citizen, this is incommensurable since he or she did not fully absorb those production costs. Thus, while neoclassical economics is highly useful in establishing exchange value it cannot fully explain value generated in either the production or consumption stages.

Gogerty (2014) makes a similar argument as it relates to the value of firms that trade in stock markets. The author explains how current price is often misunderstood as the true value of a company. He uses the illustration in Figure 2 to capture his point (Gogerty 2014).



*Figure 2.* Value clouds.

Figure 2 highlights that a stock price, like a balloon attached to the neck of a goose, changes with the daily opinions expressed as traded prices; however, none of them fully capture the objective intrinsic value of the firm. In this illustration, the stock price lags the true value of the company,

but the opposite is also often true for overvalued companies. This study adopts a similar position in that exchange price does not necessarily represent the subjective value of the commodity or service being exchanged through the eyes of the consumer. As this study will empirically delineate, consumer satisfaction is directly influenced by the level of value created in an exchange. Alternatively, Menger (1976) argued that value is not inherent in the good or service but how well it satisfies the consumer's need. These arguments cover both objective and subjective ground; however, both help explain why some consumers are willing to pay varying prices for a product or service, e.g. car, plane ticket, etc., as each has a unique value assessment for the product or service being exchanged. This is fully evaluated in use where all costs, i.e. price, energy, time, etc., are weighed in relation to the total benefits that are extracted from the service offering.

By reviewing historical value thought, this study finds that, though there was rarely consensus amongst scholars, it was broadly regarded as something derived in production, through the application of labor, land, and capital, which subsequently evolved into something negotiated through the interaction of supply (production costs) and demand factors (human behavior). In retrospect, what each of the scholars presented seems to highlight one or a couple of value creation key processes, i.e. value co-production, exchange value, and use value. Often the primary economic area of inquiry appears to be how to determine exchange value or price with minimal emphasis on value in use or value in production. More plainly, value was often used as a synonym for price in scholarly economic writings. Value in-use appears to be broadly accepted as utility or user satisfaction.

More importantly, what many of these scholars seem to misunderstand is there is no clear hypothetical relationship between any of the two or all of them together, i.e. exchange value,



production value, and use-value. In other words, value in production, i.e. labor, machine, technology input, etc. does not necessarily positively or negatively influence exchange value. Of course, scarce metals and the like will be difficult to find and require more input in the aggregate. However, a lucky gold strike will sell a pound of gold at the same rate as the prospector that continues to ineffectively search for gold one nugget at a time; so long as the gold strike does not disrupt the natural supply and demand equilibrium. More clearly, the greater the level of effort or input exerted from a service provider does not necessarily translate into a greater price or more demand. If we assume that greater input does increase price, competition would penalize those firms and create an incentive to reduce input through efficiency actions and innovation, which should lower the exchange value. Conversely, use value is not necessarily influenced by value in production and vice versa. For instance, nuclear weapons require an extreme amount of secretive production capacity yet hold relatively low and arguably negative use value. Its value is in stored potential value that prevents its use, i.e. peace through deterrence. Furthermore, water, oxygen, and sunlight are extremely useful; yet, each has very low production requirements, e.g. dams, water towers, solar panels, etc.

Two of the most important factors in contemporary economics are the laws of supply and demand. These factors stipulate a relationship where the higher quantity a firm produces the lower the price will become, and a potentially higher demand will result. Conversely, an increase in demand will drive a higher price, which would incentivize an increase in production to meet demand which subsequently lowers the price. These two lagging factors when in equilibrium establish exchange value. Accordingly, neoclassical economics represents a compromise between production and distribution factors and human wants and needs, not to be confused with utility. Thus, supply and demand curves are lagging indicators as they reflect a

multitude of complexities. For instance, a supply curve can be impacted by scarcity, production requirements, government policy, natural disasters, transportation requirements, etc. This is yet another layer of complexity that adds to the value creation mystique. However, we gain clarity on value creation when we can conceptualize that there is likely no certain hypothetical relationship between any of the three value creation processes. Finally, this retrospective review of the literature also highlights that value is not solely found or derived in any one process, i.e. in production, in use, or in exchange. Rather, value emerges in each of these three procedures.

### 2.3 Value Conceptual Foundation

The topic of value is an old one, yet it remains an ambiguous concept. This section will approach value as the efficient satisfaction of human needs. However, efficiency isn't strictly from a monetary perspective. Often, money can cloud the topic of value since its worth is also subjective (Raghubir 2006). Have you witnessed someone deliberately walk by a penny or nickel on the ground? Assuming the coin is seen and confirmed, the decision to continue walking may be dependent upon many factors, i.e. need, current and future earning power, beliefs, etc. In 350 B.C., Aristotle commented on the incommensurability of exchange between goods as, "In the truest and most real sense, this standard lies in wants, which is the basis of all association among men." (Zera 2008) In other words, in absence of money Aristotle explained that goods exchange in context where the value of something when compared to what it is being exchanged with depends on how important or how useful it is to those parties conducting the exchange. More specifically, there may be contextual factors that drive a decision to trade a house for a pair of shoes or thousands of pairs of shoes. More importantly, Aristotle's explanation brilliantly incorporates the importance of context, which is precisely what Maslow did when he developed the hierarchy of needs. While money solves the problem of exchange

incommensurability, e.g. a pair of shoes exchanges for \$10, it clouds other important areas of value, i.e. value in production and use value. More specifically, exchange value or price for a commodity does not accurately capture the value achieved during its production, i.e. enhanced relationships, learning, skill refinement, innovations, etc. Moreover, exchange value fails to fully capture the value attained in use, e.g. a \$10 hammer that a beneficiary uses to build things, e.g. houses. To simplify this conceptual analysis, this study strips away the masking power of money and employs Maslow's hierarchy of needs to enhance clarity on the topic of value. First it is important to distinguish between want and need. This study assumes the perspective that wants can derive from needs; however, not all wants are needs. This is important since, to simplify value, this study chooses to ignore needless wants as this creates more unnecessary complexity.

Before explicating the literature it's important to outline that Maslow's theory has received several criticisms. Clemmer and McNeil (1990) argued that Maslow's theory fails to capture the human spiritual dimension. Their argument is humans seek to satisfy needs that transcend our animalistic desires. Thus, starving humans can satisfy higher level values. For instance, many artists are not well fed. However, the most significant criticism is that Maslow's theory lacks empirical support (Korman et al. 1977). This positivist argument clearly has its merits as the scholars suggest that others should be reluctant to unconditionally accept Maslow's theory. While the theory has been criticized by Maslow for not being fully inclusive, i.e. it doesn't explain all human personalities, it remains to be a widely accepted theory that explains human motivation (Huitt 2004).

According to Maslow's theory, humans are motivated to satisfy needs (Huitt 2004). Thus, one can get a good idea of how a person will behave based upon how well they have satisfied

their foundational needs (Bennet 2009). Maslow's theory is appropriate for this analysis since it is highly practical and relatable across many professions and fields, e.g. education, health care, tourism, etc. (Huitt 2004; Poston 2009; Benson & Dundis 2003; Urwiler & Frolick 2008; Tikkanen 2007). Nearly anyone can review and relate their own personal experiences with it (Poston 2009; Simons et al. 1987). Moreover, since Maslow's theory incorporates the importance of satisfying a deficient foundational need, it is appropriate for this analysis since value is dependent upon context (Vargo et al. 2008 ). In accordance with the theory, humans desire to fulfill certain needs in an order where complexity of needs increase in an ascending fashion. Moreover, Maslow (1943) explained, "Man is a perpetually wanting animal. Also, no need or drive can be treated as if it were isolated or discrete; every drive is related to the state of satisfaction or dissatisfaction of other drives." Figure 3 graphically captures Maslow's theory and it is intended to be recited in an ascending fashion (Maslow & Lewis 1987b). In accordance with Maslow's theory, whenever a human senses a deficiency in a foundational need, he or she will immediately shift their priority on fulfilling that lower echelon demand (Huitt 2004). Moreover, a human will also not attempt to satisfy the next higher echelon of need until their current need is adequately satisfied. This condition is referred to as prepotency (Gawel 1997).

The pyramid in Figure 3 can be split into two types of needs. The first four foundational slices of needs, i.e. physiological, safety and security, love and belonging, and self-esteem, are categorized as deficiency needs or D-needs. These types of needs arise out of deprivation. The longer these types of needs are deprived, the stronger a human will desire to fulfill them (McLeod 2007). The inability to satisfy these needs leads to unpleasantness and potentially death.

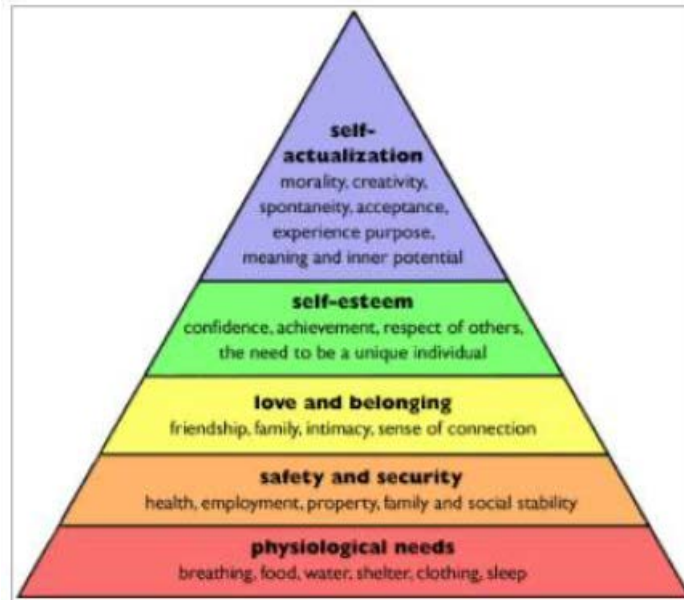


Figure 3. Maslow's hierarchy of needs.

The first level refers to the most basic needs to the sustainment of human life, i.e. breathing, food, water, shelter, clothing, sleep. The second level incorporates all safety and security needs, i.e. health, employment, property, family and social stability. The third level is the need for love and belonging. These needs revolve around providing and receiving human affection. The fourth level need is self-esteem, i.e. the need for social recognition and an advanced skill for navigating the social world (Zalenski & Raspa 2006). The top slice, i.e. self-actualization, is the highest level of need, where a human desires to grow as a person. These needs are referred to as being needs or B-needs (Cherry 2014). Self-actualization is the maximization of one's unique potential. Maslow and Lewis (1987a) explained, "A musician must make music, an artist must paint, a poet must write, if he is to be ultimately happy. What a man can be, he must be." Self-actualization is the ultimate goal, which is doing what one is meant to do (Milheim 2012). Every human has a unique perspective on what this is and it is the key to unlocking true happiness. Maslow (1965) also referred to the B-needs as meta-needs and deprivation of them leads to the "sickness of the soul." More importantly, to reach the fifth

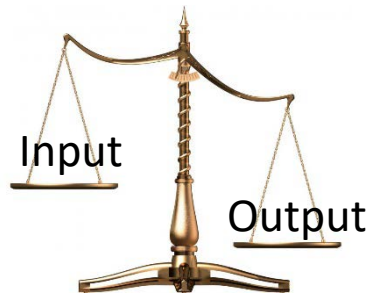
level, all the previous foundational needs must be adequately satisfied. In these instances, value can emerge if needs are efficiently satisfied.

While not all the needs in each slice of the pyramid can be fulfilled by economic markets, there are many examples where such is the case. For instance, food, water, and shelter can be purchased at the market; however, love and sex cannot be legally purchased. On the other hand, there are markets designed to connect people where love and sex could legally emerge, e.g. e-harmony, match.com, etc. In addition, it is possible a diamond engagement ring could adequately satisfy a physiological need for someone. Moreover, safety and security can be fulfilled by quality health care plans, strong employment at a firm, property ownership, etc. All of which, can be attained at or within an economic market. Furthermore, while market offerings cannot acquire friendship, family and intimacy, exchange platforms exist that enable these connections and offer the potential for these types of relationships to advance, e.g. Facebook, e-harmony, etc. Moreover, entire industries are defined by trying to help its consumer enhance personal self-esteem, e.g. clothing, make-up, etc. (Banister & Hogg 2004). Finally, there are many aspects of self-actualization that can be fulfilled through market exchanges, e.g. art supplies, musical instruments, educators, etc. Thus, while some of the slices on Maslow's pyramid cannot be directly fulfilled through economic exchange, they can be indirectly reinforced or enhanced through market exchange. For instance, the market cannot create a naturally beautiful face; however, it can offer beauty services or plastic surgery to increase appeal. Unfortunately, some of these types of surgeries cannot offer a guaranteed social appeal. Nevertheless, the most critical aspect is ensuring the benefits for the consumer outweigh the associated costs for satisfying needs. This condition is essential for the emergence of value. Many humans have paired with the wrong partner where the costs outweigh the benefits (McGinnis 2003). Many

consumers have experienced overpriced services, i.e. communications, meals, hotels, etc. Value fails to emerge when the consumer does not perceive the benefits as worth the inputs required for the service offering (Keaveney 1995).

Just as important as what Maslow's hierarchy says is what it also does not say. For instance, it doesn't have money as a need. It also doesn't have a house or a car and so forth. Money, just as a house or a car, is something that captures value and stores it for future use. Money is a means of acquiring products and services that can fulfill needs. Money cannot be consumed; it is not a resource (Brunner & Meltzer 1971). In addition, a house can fulfill a need, but it is one of many means to fulfilling a need. Given the context, a cave could suffice for the shelter need. Thus, Maslow outlines the need, not the means of satisfying the need. The notion of a gourmet dinner satisfying a need is peculiar since something much more affordable could adequately satisfy the need of hunger. Economics assumes that consumers, when they have the money, will maximize pleasure. Thus, while pork and beans will adequately satisfy hunger, humans with the monetary means will satisfy that hunger with food that maximizes happiness within a set of constraints, i.e. budget, time, etc. This is also where value emerges but often a more complex fashion since it introduces more measurable dimensions of value, i.e. hedonism.

By examining value through the lens of Maslow's Hierarchy of Needs, we discover many important insights. First, value is something that emerges by efficiently satisfying human needs. Figure 4 displays a representation where value emerges.



*Figure 4. Value scales.*

In absence of exchange and money, a human should perceive the greatest amount of immediate value by acquiring the most basic needs like shelter and food with the least amount of input. However, if the need is extreme enough, i.e. a matter of life or death, a substantial amount of value can emerge when the conditions are right. For instance, if a human is stranded in the wilderness and exposed to a harsh cold climate, he or she can gain an incredible amount of value by building a fire, given the wood procurement and ability to start a fire is not an overly burdensome a task. However, the warmth gained from a blanket could yield an even greater amount of value since it requires less immediate input. Conversely, that same human could over exert a tremendous amount of energy seeking his or her next meal. This scenario would tip the value scale in the opposing direction and result in value destruction. Maslow's hierarchy reveals that value only emerges when something can efficiently satisfy a need. Accessible food can satisfy hunger. Purified water can satiate thirst and so on. This highlights the importance of demand and a service provider's ability to appropriately meet that demand by minimizing consumer cost or sacrifice (Ravald & Grönroos 1996). In absence of demand, no use value can emerge. Finally, Maslow's theory provides a value prioritization schema from which humans will seek to satisfy needs. Thus, humans will pursue value at higher echelons in the hierarchy when lower echelons are satisfied. Conversely, higher echelons will lose priority for value satisfaction when a deficiency at a lower echelon is detected.



## 2.4 Research Question 2

This section seeks to uncover the dimensions of value from the associate literature. During this process, this section will address the research question: 2) what are the dimensions of value and how should they be architected to enhance understanding? Merriam-Webster (2017) defined a dimension as, “a lifelike or realistic quality”, “the range over which or the degree to which something extends” and as a “measure in one direction”. However, in accordance with the last definition of value, this research advocates that previous scholarly work has been directed towards those dimensions that either can or should be measured. Thus, other important dimensions of value have been developed but there has not been a tremendous resolute effort from scholars to fuse them together from a broad perspective. This section will begin with a literature review that covers previous scholarly contributions to the dimensions of value. Next, it will reconfigure value into five dimensions from a broad view to add clarity and accurately capture the value concept for ease of explication and understanding.

Sheth et al. (1991) suggested five dimensions of value (social, emotional, functional, epistemic and conditional) relating to perceived utility of consumer choice. Collectively these five value dimensions coalesce into a theory that explains consumer choice behavior, i.e. why a consumer chooses to buy something within the market. Social value refers the utility acquired through association, either positive or negative, with certain ethnic, socioeconomic, cultural and demographic groups. Emotional value is the utility one receives through feeling arousal or affective states. Functional value is the utility acquired from a service capacity’s functional, utilitarian or physical performance. This dimension has commonly been accepted as the primary driver of consumer preference. Epistemic value is the utility gained through a service offering’s ability to increase curiosity, fulfill novelty, and/or satisfy a need for knowledge. Finally, conditional value is utility acquired through specific situations or circumstances, e.g. Christmas

cards are only valuable when in season. The scholar explained that each of these dimensions is independent from the other. Additionally, consumer choice could result from the satisfaction of only one of the dimensions but up to all five, which is likely impractical. While each of these dimensions is useful, they were designed to be employed in the consumption stage and exchange stage, which does include the value production process of value creation. This multi-dimensional value model was empirically tested and verified, with the exception of conditional value dimension, by Williams and Soutar (2000) in a tourism context.

Mattsson (1991) presented a framework that consisted of three critical value dimensions. The first was the emotional (E) dimension, which reflected the consumer's feelings. This represented the gestalt experience of the service encounter. This is best described as the associate feelings experienced by the consumer during the service episode. The second was the practical (P) dimension, which absorbed the physical and functional aspects of the service encounter, e.g. ease of use or wait time. The third was the logical (L) dimension, which engrossed the rational and abstract characteristics of the exchange, e.g. right or wrong. It also illustrated the rational aspects such as quality and price as it relates to the service encounter. De Ruyter et al. (1997) adopted the framework articulated by Mattsson (1991) and empirically tested by Danaher and Mattsson (1994), to conceptualize value across these same three dimensions, i.e. E, P, and L. De Ruyter et al. (1997) argued that these three value dimensions were collective antecedents to consumer satisfaction.

Babin et al. (1994) dimensionalized consumer value into two distinct zones, i.e. hedonic and utilitarian. The utilitarian dimension of consumer value represents the dark side of the shopping experience. This encompasses those consumers that interpret shopping as a chore or view it as a get in and get out type of interaction. If consumers can't easily find what they want

in an efficient manner they are prone to irritation as they seek satisfaction by completing the shopping experience, not the experience gained from it. Alternatively, a more subjective and personal approach is the hedonic dimension of consumer value. This dimension reflects the emotional and entertainment worth of the shopping experience where purchasing is incidental to the entire experience. Thus, it is characterized by a heightened sense of freedom, escapism and fantasy fulfillment. While both dimensions are distinct they are not mutually exclusive; thus, a consumer could experience both types of value in a single shopping experience. For instance, a consumer finding and purchasing a pair of shoes for a discount at their first store could experience hedonic value from the thrill of receiving a discount and utilitarian value due to ease of product acquisition (Babin et al. 1994).

Zeithaml and Bitner (1996) defined perceived value as, “the consumer’s overall assessment of the utility of a service based on perceptions of what is received and what is given.” The authors captured value in two dimensions with this definition. This study reframes that what is received is synonymous with benefits and what is given is equivalent to costs. Zeithaml and Bitner (1996) more clearly described what is given as things such as time, money and effort; whereas what is received as volume, high quality, and convenience. The authors also expressed that the costs and benefits of an exchange can vary and are idiosyncratic across consumers (Zeithaml & Bitner 1996). Thus, value is relative and specific to that one instance of exchange.

Parasuraman and Grewal (2000) identified four dimensions of value. The first is acquisition value, which represents the benefits received to the costs incurred for a service offering. The second is transaction value, which is the excitement from getting a good deal for a service or product. The third is in-use value, which represents the overall utility that is derived from using the service offering over time. Finally, redemption value is a dimension that

represents any residual value that is recovered at the time of trade-in, end of life, or termination (Parasuraman & Grewal 2000).

Sweeney and Soutar (2001) presented four value dimensions to explain consumer choice (emotional, social, functional (quality/performance), and functional (price/value for money)). The scholars define emotional value as, “the utility derived from the feelings or affective states that a product generates. Additionally, the authors defined social value as, “the utility derived from the product’s ability to enhance social self-concept. Both of those two dimensions are characterized as hedonic, where each plays an emotional role in purchasing behavior. On the other hand, the authors characterize the next two dimensions as utilitarian since they characterize rational factors that contribute to consumer behavior. Functional value in the form of price/value for money was defined by the scholars as, “the utility derived from the product due to the reduction of its perceived short term and longer-term costs”. Finally, functional value in the form of performance/quality was defined as, “the utility derived from the perceived quality and expected performance of the product.” The authors advocate that these four dimensions provide a much better representation of value versus a single value for money dimension and the developed scales should provide powerful investigative capability (Sweeney & Soutar 2001).

Petrick (2002) proposed and Petrick (2004) tested five dimensions of perceived value from a product or service (behavioral price, monetary price, emotional response, quality, and reputation). Both studies advocated that dimensions of what is received in a service exchange include: emotional response received from the service, associate service quality, and reputation of the service provided. Previous research indicated that reputation of both store and brand were keys influence on consumer perceived quality and value (Dodds et al. 1991; Zeithaml 1988). Alternatively, the dimensions of what is given by the consumer include: money and non-money

or behavioral price, which is time and effort invested to acquire the service. When combined the author presented a conceptual framework of perceived value of service. It is represented in Figure 5 (Petrick 2002).

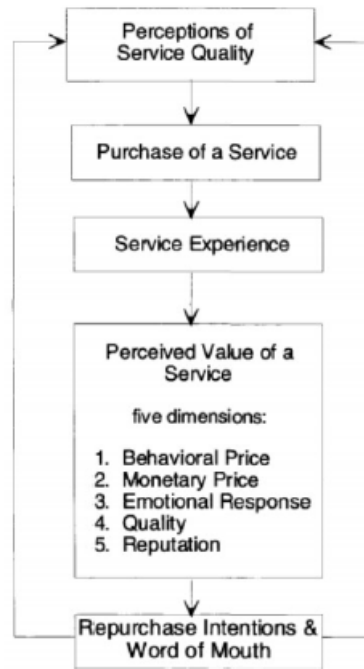


Figure 5. Perceived value framework.

This conceptual framework presents a recursive process where consumer perceptions of service quality influence the purchase of a service and the service experience. Additionally, the experience gained from the service influence the perceived value of the service, which impacts a consumer's future repurchase intentions. Moreover, word of mouth to friends and other potential consumers influences perceptions of service quality (Petrick 2002).

Al-Sabbahy et al. (2004) explicated two key dimensions of perceived value. The first, acquisition value is described as the net gains extracted from the trade-off between costs and benefits in an exchange. Consequently, this dimension is directly impacted positively by the associate exchange benefits and negatively by the costs incurred by the consumer. The second dimension, transaction value refers to the difference between the exchange price and some

internal baseline price one uses as a reference price. This reference price, extracted from memories of historical purchases, enables the consumer to appropriately assess the exchange deal. Thus, if the price paid for the actual exchange is less than the reference price, the consumer may receive additional value. However, the author's empirical study failed to solidify transaction value as a valid construct (Al-Sabbahy et al. 2004). This implies that value is the trade-off between costs and benefits.

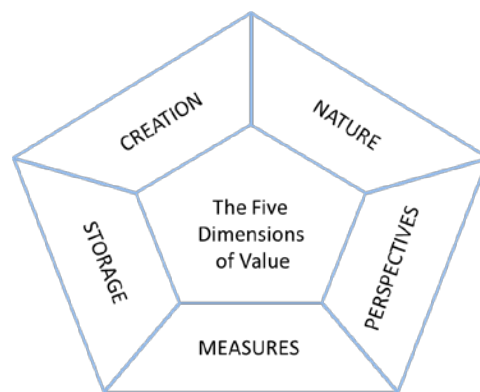
Grönroos and Helle (2010) advocated that value has a technical, perceptual and monetary dimension. However, each dimension is treated as having two sides from the same coin where one represents the customer's perspective and the other the supplier's. From the customer's view, the technical value dimension refers to how well a given practice functions due to the support received. For instance, it reflects how well a supplier's delivery process impacts the customer's logistics support system. On the other hand, the supplier views technical value and judges it by how well its processes function in response to the alignment or misalignment of the customer's processes and resources. For the customer, the perceptual value dimension relates to how well the supplier performs from the customer's perspective. For instance, if the customer perceives an increase in relational trust or commitment within the dyad, then this would reflect that dimension. For the supplier, this dimension is influenced by how well its processes perform in response to the customer's processes. If the two are appropriately aligned, then this dimension would capture that result favorably. For the customer, the monetary value dimension reflects how well the customer's business processes perform through supplier pricing and associated cost saving and cost control efforts. This dimension is directly influenced by the technical dimension because of the supplier's support. For the supplier, the monetary value dimension is influenced by how well the customer responds to the supplier's pricing, sales, and cost savings/cost control

opportunities and strategies. If the customer experiences a performance increase that results from the suppliers pricing and cost strategies, then the supplier should also experience a boost in this monetary value dimension (Grönroos & Helle 2010).

By reviewing previous literature concerning the dimensions of value, it is evident that concepts are scattered about and require some purposeful organization to enhance clarity and understanding. To support this notion, Sánchez-Fernández and Iniesta-Bonillo (2007) explained, “A review of the extensive literature on the subject reveals ambiguity with respect to the definition, dimensions, and measurement of perceived value.” Ironically, much earlier Woodruff (1997b) commented, “The growing body of conceptual knowledge about customer value is quite fragmented, with different points of view advocated and no widely accepted way of pulling all these views together.” In addition, it is also clear that there is no scholarly convergence on what dimensions should be associated with value. However, if value is viewed as a subjective calculation between total cost and total benefits, most documented value dimensions can be regarded as inputs into the value equation, i.e. as a cost and/or a benefit. As such, this study advocates that previous attempts to dimensionalize value should be broadly categorized in five separate and distinct dimensions with most of which qualifying for the measure dimension in Figure 6, i.e. value is measured as a subjective assessment of costs and benefits associate with exchange. However, it is not this study’s intent to capture and organize all the dimensions explicated in the literature.

Overall, accurately articulating value and its creation is a problematic task for many reasons. Value is characterized by multiple dimensions that make it difficult to holistically describe and process. While not explicitly stated in the literature, those dimensions include its nature, the perspective from which it is perceived, e.g. firm, customer, shareholder, employee,

etc., how it is stored, e.g. products, digitally, learning, etc., how it is measured, e.g. money, earnings per share, proficiency, etc., and how its created, e.g. from production to exchange to use value. Simply put, value and its creation is amorphous and its valuation depends on a myriad of dimensions which can vary (Zeithaml & Bitner 1996). Moreover, as technology or new innovations advance its creation, each do not fully subsume the previous sources of its generation creating an abundance of clutter which increases ambiguity. For instance, value can be created through a 3-dimensional printer, mass produced, mass customized or it can be hand crafted by a highly specialized artisan. Thus, its sources of generation are broad and idiosyncratic. To organize and appropriately articulate the many dimensions of value and its creation, this study captures each in isolation for explication. In other words, this study will decompose a multi-dimensional concept and analyze it in a unidimensional fashion to enhance its interpretability. Figure 6 highlights what this research proposes as the five dimensions of value.



*Figure 6.* Value dimensions.

By admission, this chart is not fully inclusive; however, this research proposes five primary dimensions of value. What follows are the dimensions of value where each represents a key aspect of value and/or its creation. Moreover, the subsequent sections will discuss and provide a broad overview of the associate literature that justifies the existence of each dimension. It is not



the intent of this research to provide a comprehensive review of the associate literature for each proposed dimension.

#### 2.4.1 Nature of Value

The nature of value is an area that lacks intense and explicit scholarly analysis. It is likely an underdeveloped area of study due to the ambiguity of value. Consequently, it is difficult to describe the nature of something when its meaning lacks convergence within a body of scholars. But what does it entail to describe the nature of something? Merriam-Webster (2017) defined nature as, “the inherent character, natural condition or basic constitution of a person or thing.” Thus, when discussing the nature of value, this study seeks to identify the attributes and features that distinguish value. While not all inclusive, the outcome of this review will highlight several key features of value that make it unique. To accomplish this task, a review of the value nature literature was necessary.

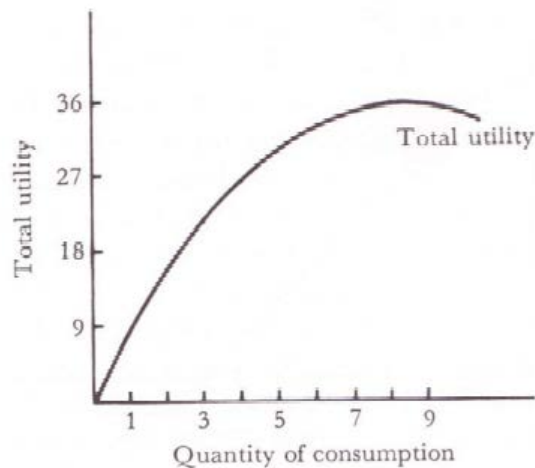
Rust and Oliver (1993) conducted one of the most holistic presentations on the nature of customer value. Despite the authors limiting value’s scope to the consumer perspective, this study adopted several aspects that can be applied to value from a much broader view that incorporates all value stakeholders. The scholars explained the nature of customer value in several ways. First, Rust and Oliver (1993) defined value as an, “interactive relativistic preference experience.” The authors explained that value is associated with preference, i.e. a general liking. Moreover, value is inherently subjective as it incorporates all qualitative and quantitative factors within the value equation (Babin et al. 1994). Thus, what is wanted by one individual may not be demanded by another. This is consistent with Levitt (1986) where only consumers can assign value to something that they perceive. It is also neither completely objective nor subjective; rather it is a subject-object interaction. This implies that value exists

independent of perception, but a service offering's evaluation is ultimately influenced by what is perceived. It is relativistic where it is compared or ranked against something else. Thus, value is commensurable between things for a given person but incommensurable between people. Thus, what one person likes or dislikes varies amongst individuals. Value is situational since context influences its evaluation. For instance, an individual will value a cold glass of water in the desert different to a cold glass of water in the arctic. Finally, value is interactive in that it involves the perceptions of a subject and an object. This could be a consumer and a product or a service (Rust & Oliver 1993). These findings are consistent with Holbrook (1999). Each of these aspects of value, contribute to its amorphous characterization. However, just as each of these aspects of the nature of value apply to consumers; it is self-evident that they would also apply to other units of analysis, i.e. firms, employees, managers, governments, etc.

At the highest level of abstraction, this study embraces a combination of Zeithaml (1988) and Anderson and Narus (1998) definitions but more closely characterizations of value where it is the total worth of the benefits received for the price paid, i.e. money, time, energy, etc., where one perceives what is received for what is given. Thus, exchange occurs when all parties get more of something in return than he or she puts into the exchange (Kotler et al. 1991). However, these descriptions are closer to a characterization of value versus a clear definition since the terminology employed is broad and non-descriptive. In addition, this characterization does not limit itself to a single perspective; rather it could be applied to a broader array of perspectives, i.e. firms, shareholders, consumers, employees, etc. Thus, regardless of one's perspective, i.e. firm, consumer, shareholder, etc., value emerges when the unit of analysis gets more than what it puts into the economic exchange. This characterization of value is what makes it unique from other abstract concepts. Moreover, value is a concept that should not be

constrained to a strict definition as it is a concept that shifts and transforms in accordance with context and the evaluator's perception. Thus, any universal definition should quickly be violated.

This study advocates that there also other aspects of values nature worth explicating. Sheth et al. (1991) introduced condition as a dimension of value; however, this study categorized condition more closely to an aspect of value's nature. Value condition is a concept that reflects how value can only emerge when certain conditions are present. For instance, Halloween costumes are not likely valued until the season is present. In addition, a warm jacket won't likely be valued during a hot summer's day. Thus, condition, which closely resembles context, describes those aspects of value that either enable or prevent it from emerging. Another critical aspect of the nature of value is how it materializes through consumption and use.



*Figure 7.* Gossen's first law.

In 1854, Herman Gossen introduced the concept of diminishing marginal utility. He advocated that as the quantity of a commodity consumed is increased the utility will also increase but at a diminishing rate until the point of satiation. Satiation occurs when the marginal rate of change for utility is equal to zero. This phenomenon is popularized as Gossen's first law and is presented graphically in Figure 7 (Landreth 1976). Figure 7 shows that as the quantity of

consumption of any good is increased its total utility to the individual diminishes to the point of satiation (Landreth 1976). This chart also implies negative utility once the point of satiation is passed. Imagine consuming so much water that one dies as a result. While this law is clearly logical for things that can be physically consumed, i.e. food, water, etc., it may not at first appear to apply to all value propositions. For instance, driving a vehicle does not lose its utility with the quantity of consumption; assuming it is adequately maintained, and the user has a need to drive it, i.e. somewhere purposeful to travel. Moreover, a dish washer or a washing machine does not lose utility with quantity consumed, i.e. quantity of dirty dishes or clothes washed. A strong argument could be made that value propositions such as these follow a linear relationship between total utility and quantity consumed. This rationale is correct but only so in the short-run. In the long-run a vehicle or a washing machine will reach a point where its maintenance costs will exceed its use value, where one gives more in relation to what he or she gets. Fixing a mechanical device requires an abundance of time, money and patience. Consequently, Gossen's first law appears to apply to all value propositions and it represents a critical aspect of the nature of value (Van Praag & Kapteyn 1994). More clearly, Gossen's first law depicts how value materializes through consumption and use for any given economic exchange. However, the quantity of consumption between consumers may not always be congruent. Thus, one consumer may drink a glass of water and feel satiated whereas another may need three or more glasses, *ceteris paribus*.

Just as value materializes through consumption, it also materializes across a continuum of time. More clearly, value can emerge all at once or across an extended span of time. For instance, consider commodities such as wheat, gasoline, and perishable food. These types of commodities can only be consumed one time and then it must be regenerated, if possible. Thus,

its value emerges all at once and does not naturally expand across a continuum of time. This is not to say that it cannot be stored and preserved, which implies that value has a shelf-life. Whereas other types of economic offerings, i.e. house, car, clothing, etc., can have a continuum of value emergence over a lengthier duration of time. The benefit of owning a home could be that it provides shelter for more than a single day and potentially a life-time. Equally beneficially could be an appreciation in economic value in the home, i.e. equity and market exchange value. On the other hand, economic value can decay or diffuse. The purchase of an everyday common new vehicle embodies this impression. The moment of purchase is when the vehicle maintains the most exchange value. Overtime its exchange value will decompose and the total cost of ownership will increase. However, it arguably has the least cumulative use value on the day of purchase. Over time the vehicle's use value will accumulate as it gains miles on the odometer (Fuscaldo 2013). These examples reveal that value materializes over a continuum of time, ranging from an all at once value emergence or across a much longer duration of time.

Value can also have an associate shelf life. Microbiologist constantly search for effective methods to preserve food as demand for ready-to-eat meals and snacks with natural preservatives have increased around the world (Sharma & Gautam 2007). This implies that value can be stored, which this study advocates; however, there are no absolutes. For instance, time cannot be stored for future use; nor can an empty seat on an operational airplane route. Thus, while many market offerings can be stored, e.g. household batteries, each will have an associate shelf-life where its value will diffuse and decay. Conversely, other market offerings can increase in value the longer they are stored and preserved, e.g. wine, certain types of liqueur, art, etc. In retrospect, what unfolds is a continuum of value storage. Some offerings lose value as time progresses while others may gain value. Moreover, there are other offerings which cannot be

stored and preserved. This complex dynamic characterization signifies an important aspect of value's nature.

Another key element to the nature of value is it can be scalable. For instance, consider a baker that sells cakes and pies in a corner store. Unfortunately, the baker's output is constrained by one of the following: oven, materials, resources, and workers. Regardless of consumer demand, the baker while operating within a framework of fixed constraints can only produce a finite quantity of snacks. His recipes can be shared in books and through television shows but the application of his unique knowledge and skills cannot. This too was once true for the opera singer. In this instance, the opera singer could only create value for an audience that a facility or arena could hold. With technological improvements, i.e. audio recording, YouTube, etc., the opera singer can now extend value well beyond the walls and seats of the opera house (Nicholas 2007). This value can be enjoyed by anyone in the world with access to technologies such as a cd player or an internet connection. Thus, while scalability may not apply to all value offerings, i.e. the baker, it has application power within many areas, e.g. music, education, books, etc.

Finally, the actor's comparison of some baseline or reference value experience to a potential market purchase is another important aspect of value's nature. Oliver and DeSarbo (1988) explained that a consumer's comparison of what emerges to what was expected is an assessment of disconfirmation. Thus, a positive disconfirmation represents a convergence of expectations and results from a market purchase. However, a negative disconfirmation represents a divergence of the two and results in a lack of satisfaction which negatively influences a consumer's likelihood to repurchase. Woodruff (1997b) presented a similar model where customers compare desired value to received value in a customer value hierarchical model. Zeithaml (1987) explained that a referenced baseline for comparison could be perceived

quality to price; however, customers often don't remember an exact price but these memories are encoded in a meaningful manner, i.e. cheap or expensive. Ng and Smith (2012) introduced a consistent approach where an actor possesses a consciousness of value through perception of the value within the offering, ex-ante and ex-post. Thus, the actor must believe he or she will be better off before executing the exchange. These findings indicate the importance that value must be perceived before the exchange occurs, which is often influenced by previous experience or other marketing cues, i.e. warranties, promotions, new technology, etc. (Zeithaml 1987).

By examining the value literature and mining it, this study sought to incorporate as many aspects that appropriately and rightly fit within the nature of value. By doing so, this study uncovers the many layers of value's nature and how it could help distinguish this concept and provide clarity to a highly ambiguous multi-dimensional construct. In addition, this study incorporated other aspects into the nature of value that were not explicitly described as such when originally introduced into the value literature, i.e. diminishing marginal utility, value materialization across time, and value shelf-life.

#### 2.4.2 Perspectives of Value

While customer value is the most common reference to value in the marketing literature, there are certainly other various perspectives that should be considered. Several scholarly publications were pivotal to the identification of value perspectives as a necessary dimension of value. For instance, Woodruff (1997b) briefly touched on the notion of multiple value perspectives when he explained that delivering superior value to high value customers subsequently increases the value of the firm, which he argued considers value from the organizational perspective. Unfortunately, the notion of multiple value perspectives has not been well documented or examined within the literature.

Table 6

*Value Perspectives*

<b>Perspective</b>	<b>Author(s)</b>	<b>Title</b>	<b>Key Findings</b>
<b>Firm</b>	Villalonga & Amit 2004	How do family ownership, management, and control affect firm value?	Family management leads to firm value so long as the founder is the CEO or chairman with a non-family CEO; descendant founders as CEOs destroy firm value.
	Berger & Ofek 1995	Diversification's effect on firm value	A diversification investment strategy leads to value loss. We find additional support for the conclusion that diversification reduces value by documenting that the segments of diversified firms have lower operating profitability than single-line businesses.
	Chambers et al. 1998	The war for talent	Superior talent will be tomorrow's prime source of competitive advantage. Any company seeking to exploit it must instill a talent mindset through the organization, starting at the top.
	Levina & Ross 2003	From the vendor's perspective: exploring the value proposition in information technology outsourcing	Firms may generate value by outsourcing IT support when its needs are aligned with the competencies available in the market.
	Denis et al. 2002	Global diversification, industrial diversification, and firm value	Firms that become either globally or industrially diversified experience statistically significant decreases in excess value and firms that cease being either globally or industrially diversified experience statistically significant increases in excess value.
<b>Customer</b>	Cretu & Brodie 2007	The influence of brand image and company reputation where manufacturers market to small firms: A customer value perspective	Brand image has a more specific influence on the customers' perceptions of product and service quality while the company's reputation has a broader influence on perceptions of customer value and loyalty.
	Woodruff 1997a	Customer value: The next source of competitive advantage	Customer value takes the perspective of an organizations customer, considering what they want and believe that they get from buying and using a seller's product. Organizations need to make the transition from a largely internal to a more balanced internal and external focus on customer value.
	Zeithaml 1988	Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence.	Monetary price is not the only sacrifice perceived by consumers. Value is low price. Value is whatever I want in a product. Value is the quality I get for the price I pay. Value is what I get for what I give.

*(table continues)*



<b>Perspective</b>	<b>Author(s)</b>	<b>Title</b>	<b>Key Findings</b>
<b>Public</b>	Stoker 2006	Public Value Management	The overarching goal is achieving public value that involves greater effectiveness in tackling the problems that the public most cares about; stretches from service delivery to system maintenance. The public value paradigm places its faith in a system of dialogue and exchange associated with networked governance.
	Benington 2011	From private choice to public value	Public value highlights the processes of co-creation, which are necessary for the production of public value in much of the public service sector, including the education, health and criminal justice services.
	Alford & O'Flynn 2009	Making sense of public value: Concepts, critiques and emergent meanings	Public value becomes the value created by government through services, laws, regulations and other actions thereby creating a rough yardstick against which to gauge the performance of policies and public institutions.
<b>Shareholder</b>	Srivastava et al. 1998	Market-based assets and shareholder value: A framework for analysis	The four drivers of shareholder value are: 1) an acceleration of cash flows 2) an increase in the level of cash flows, e.g. higher revenues and/or lower costs, working capital, and fixed investments 3) a reduction in risk associated with cash flows, e.g. through reduction in both volatility and vulnerability of future cash flows 4) the residual value of the business, e.g. long term value can be enhanced by increasing the size of the customer base.
	Hillman & Keim 2001	Shareholder value, stakeholder management, and social issues: What's the bottom line?	Building better relations with primary stakeholders like employees, customers, suppliers, and communities could lead to increased shareholder wealth by helping firms develop intangible, valuable assets which can be sources of competitive advantage, e.g. reduced turnover, improved reputation, and supplier/customer loyalty. However, using corporate resources for social issues not related to primary stakeholders may not create value for shareholders.
	Nocera 2012	Down with shareholder value	Look at almost any company that has lasted, it is inevitably because executives see themselves as trying to move the organization forward, and not because they are incented by their pay package to maximize the share price.

The tendency for scholars has been to discuss a perspective of value in isolation, whilst neglecting the notion that multiple value perspectives are continuously involved in exchange where each is driven by different motivations and incentives. The purpose of this section is to identify several of the key value perspectives involved in economic and social exchange. The scholarly works that largely influenced this value dimension are presented in Table 6. By admission, there are likely more perspectives that this study failed to incorporate; thus, Table 6 is not all inclusive but it captures what the laymen may consider to be the major actors impacted by economic exchange, i.e. firm, customer, public, and the shareholder. Any given economic exchange scenario will include multiple beneficiaries with differing perspectives and goals. The term beneficiaries are employed since the two most direct actors, i.e. the buyer and the seller, are better off by conducting the exchange; otherwise the exchange would not occur. For instance, imagine nearly any sporting event, which features players, referees, coaches, support staff, fans, alumni, vendors, etc. Every actor at or near the event perceives and experiences varying degrees of value from a unique perspective. Those involved with the exchange include the customer who purchases an event ticket, players who fulfill an obligation in exchange for an educational scholarship or paycheck, coaches and associate staff who are paid by the firm or school, and referees, concessionaires, maintenance, etc., who are reimbursed through other means, i.e. sales revenue. Convenience stores closely located to the stadium likely benefit indirectly from the weekly event as well. Consider the players, coaches and fans. How much value was realized for each actor? For some, it may have been the greatest experience for unique reasons such as a first encounter with your future spouse, i.e. a fans use value or total experience; while others may not share a similar evaluation. Some may only participate for the exchange value or money. While

other actors may seek a more hedonic use value, i.e. the thrill of instructing and mentoring players.

To further solidify the multi-value perspective dimension, consider that a car dealership likely gives more proportionally than a customer on a single new vehicle sale. Albuquerque and Bronnenberg (2012) reported that car dealerships obtained 6.5 percent gross margins on new car sales or approximately 1,600 dollars average per sale. But clearly dealerships value a single sale more than the car it possesses. Arguably, a buyer reasonably gets more value by comparison in this instance. Simply put, one of the primary reasons firms exist is to satisfy customer wants and needs that they themselves cannot efficiently or effectively satisfy themselves (Slater 1997). More clearly, a customer cannot take the exchange price of a car that is offered from a manufacturer and dealer and use it to recreate a similar vehicle. The customer does not have the supplier relationships, capabilities, knowledge, and skill sets required to facilitate that type of complex transaction. Manufacturers and dealerships conduct these activities because there is demand and the customer cannot or refuses to satisfy that demand in isolation. Consequently, dealerships are burdened with massive overhead, i.e. facilities, employee payroll, insurance, etc., where that small gross percentage on the sale is not valued congruently from the dealerships perspective as it is to the buyer who can use the new vehicle extensively to co-create future value, i.e. drive to destinations, achieve social status, enjoy the ergonomics and drivability of the vehicle, etc. However, the dealership gains a tremendous amount of value from hundreds and thousands of new customers, return customers, used car sales, after sales service and parts support, financing, etc. (Reed 2013). In the latter circumstance, the dealership in the aggregate gains more than it gives and subsequently turns a profit and remains in business. This satisfies shareholders who seek to maximize returns from investments, i.e. stocks. Moreover, the

dealership and manufacturer will pay taxes which are used to fund public services provided by actors such as police, educators and public administrators. However, the notion of getting more in return than what is put in is also highly abstract. What subjectively gets included in the value equation is what gets measured. At its most basic, value is the efficient satisfaction of a need. However, at a higher level of abstraction value can also include multiple benefits and costs. These inputs could be a myriad of things to include time, energy, emotion, money, function, hedonic, etc. One key attribute that distinguishes value is that it is subjective (Babin et al. 1994). Hence, this attribute contributes to its amorphous character, where each stakeholder may unequally appraise a similar value proposition due to a combination of different preferences, perspectives and other considerations.

By examining value perspectives, this study sought to highlight and codify a dimension of value that impacts the value proposition. While each of these terms in Table 6 were collected from scholars that were describing what they thought was a type of value, the reality is these scholars were identifying a perspective of value. Thus, value remains to be some subjective assessment between the associated costs and benefits. For instance, while consumer's benefit from supply chain management activities through product availability, higher quality, and lower cost, firms arguably more directly benefit from those functions to create value in co-production type activities, i.e. learning, enhanced relationships, core competency refinement, etc. Conversely, an increase in convenience for a consumer could lead to a potentially lower transaction cost; however, this action may increase the firm's transaction cost. This could include duplicate sales functions such as a physical retail stores and an internet selling portals, which provides multiple semi-redundant consumer shopping options that fit individual routines and shopping preferences where the cost is absorbed by the firm. Consequently, by examining

value perspectives, this study highlights that value perception is influenced by the perspective of the actor.

### 2.4.3 Measures of Value

As discussed in section 2.3 value, at the lowest level of abstraction, is the efficient satisfaction of needs. This research employed Maslow's hierarchy of needs to provide clarity to an unnecessarily ambiguous construct. However, from a higher level of abstraction, value can be perceived and measured by a subjective array of inputs (costs) and outputs (benefits). Its measurement is subjective since not all stakeholders converge on congruent benefits and costs. Zeithaml (1988) explained that value is the relative trade-off between an exchanges' give and get components. For instance, some participants may view a hedonistic aspect of exchange as beneficial whereas others may view that as a cost. For instance, not every consumer is going to enjoy the experience of shopping in a crowded mall. These types of consumer's may evaluate the exchange as fulfilling the need with the least amount of input, i.e. utilitarian value. In addition, Sweeney and Soutar (2001) argued that value is a construct that requires many simultaneous measures that may be differentially weighted to enhance its usefulness. For instance, consider ordering a meal at an upscale restaurant. More than just the quality and price of the meal is used to determine overall value generation. Aspects such as waiting time, atmosphere, service, smell, cleanliness, parking capacity may also be considered to holistically evaluate the exchange. Then, it's the consumer, who determines which aspects are the most important, i.e. which aspects receive a greater weighting in the subjective value calculation.

This study found and aggregated many but not all inputs or measures of value. The clear majority of which this study determined as either a cost and/or a benefit in the overall value equation.

Table 7

*Value Measures*

<b>Type</b>	<b>Definition</b>	<b>Author(s)</b>
Quality	A consumer's judgment about a product or service's overall excellence or superiority (Zeithaml, 1988)	Petrick 2002
Emotional response	A descriptive judgment regarding the pleasure that a product or service gives the purchaser (Sweeney et al, 1988)	Sheth et al. 1991 Mattsson 1991 Petrick 2002
Social	The utility derived from the product's ability to enhance social self-concept	Sheth et al. 1991 Sweeney & Soutar 2001
Functional (price/value for money)	The utility derived from the product due to the reduction of its perceived short term and longer-term costs	Sheth et al. 1991 Sweeney & Soutar 2001
Functional (performance/quality)	The utility derived from the perceived quality and expected performance of the product	Sheth et al. 1991 Sweeney & Soutar 2001
Conditional	The perceived utility acquired by an alternative as the result of the specific situation or set of circumstances facing the choice maker, e.g. seasonal value, once in a lifetime value.	Sheth et al. 1991
Epistemic	The perceived utility acquired from an alternative's capacity to arouse curiosity, provide novelty, and/or satisfy a desire for knowledge.	Sheth et al. 1991
Hedonic	Hedonic shopping value reflects shopping's potential entertainment and emotional worth (Holbrook and Hirschman 1982)	Babin et al. 1994
Utilitarian	Utilitarian consumer behavior has been described as ergic, task-related, and rational (Batra and Ahtola 1991; Engel et al. 1993; Sherry 1990)	
Transaction	The pleasure of getting a good deal	Parasuraman & Grewal 2000
Acquisition	The benefits (relative to monetary costs) buyers believe they are getting by acquiring a product/service	
In-use	Utility derived from using the product/service	
Redemption	Residual benefit at the time of trade-in or end of life (for products) or termination (for services)	

*(table continues)*

<b>Type</b>	<b>Definition</b>	<b>Author(s)</b>
Production Value	Involves the participation in the creation of the core offering itself. It can occur through shared inventiveness, co-design, or shared production of related goods, and can occur with customers and any other partners in the value network.	Lusch & Vargo 2006b
Exchange value	The treatment of value as embedded utility, or value added and price	Vargo & Lusch 2004 Lepak et al. 2007
Behavioral price	The price (non-monetary) of obtaining a service, which included the time and effort, used to search for the service (Zeithaml, 1988)	Petrick 2002
Monetary price	The price of a service as encoded by the consumer (Jacoby & Olson, 1977)	
Reputation	The prestige or status of a product or service, as perceived by the purchaser, based on the image of the supplier (Dodds et al., 1991)	
Technical	How a given practice functions as a result of the support received, e.g. how does the order-taking and delivery process support the customer's logistical process	
Perceptual	The performance, trust, commitment and attraction perceived by two linked business entities	Grönroos & Helle 2010
Monetary	How business processes, through growth, premium pricing, and cost savings effects are impacted as a result of providing and/or receiving support	
Efficiency	The value of time is context and situation dependent; thus, some consumer's may be incredibly wasteful with time but stingy in other circumstances, e.g. waiting in a queue	
Excellence	A criterion many companies and quality promoters frequently use in describing their consumables. As long as consumers can imagine an excellent product, true or not, it can be held out as a standard.	Holbrook 1999
Play	Often associated with fun, teamwork, and cooperation, it has an equally strong association with trouble-making, mischief, and deception	
Aesthetics	Derived from the consumer's perception of a form that not only is attractive, but that also meets a set of utilitarian and social needs.	
Esteem	Objects are valued due to their ability to enhance the status or appearance of their owners	
Status	A process of social construction whereby an individual is motivated to identify desirable location(s) in the social nexus and then to acquire products and experiences that will successfully achieve this honor	
Ethics	Reflects doing good for its own sake and as a result of a sense of moral obligation or duty.	

*(table continues)*

<b>Type</b>	<b>Definition</b>	<b>Author(s)</b>
Spirituality	It has something to do with sacred things in general-as opposed to lay, temporal or material matters-and the experiential side of religiosity in particular (soul, sanctity, holiness, faith, belief, inspiration, immateriality, immortality, transcendence, saintliness, ecstasy, etc.)	
Possession	Refers to value in-use rather than to economic value and is defined as the extent to which an owner holds a possession to be dear, independent of exchange opportunities.	Richins 1994
Supply Chain Value	The outcome of all value-added activities that occur within a supply chain such as CRM, SRM, demand management, production, transportation, inventory, returns, etc., which enhances quality, reduces cost, and increases product availability.	This research



However, it is not the intent of this study to label each as either a benefit or a cost as this is subjectively determined by the evaluator, e.g. consumer, manager, public, etc. Table 7 highlights these measurements and organizes them by author with an associate definition to enhance understanding. In addition, these publications were pivotal to the identification of value measures as a needed dimension of value. Those scholarly works are presented in Table 7. While Table 7 is certainly not all inclusive, disciplines such as supply chain management conduct and manage what is often regarded as value-added activities (Spekman et al. 1998; Lambert & Cooper 2000). However, from a broader perspective, supply chain activities such as demand planning, customer and supplier relationship management, distribution, inventory management, returns management, production, etc. contribute to supply chain value in the form products and services intended for the customer (Christopher et al. 1992). Future research should seek to explicate supply chain value and how it should be operationalized.

More importantly, when carefully examining Table 7, it is self-evident that most of these measures can fulfill the subjective role as either a benefit and/or a cost into the value equation. For instance, high quality in a competitively priced product or service is a benefit that the consumer enjoys in an exchange. However, low quality in a product or service would likely no longer be considered a benefit by a consumer; rather, it is a sacrifice or a cost, *ceteris paribus*. That should not imply a lack of value of course if the price is competitive. Moreover, low quality at a highly competitive or low price can enhance value by comparison to low value at a high price (Caruana et al. 2000). In addition, a low behavior price, i.e. time and effort used to search for a service or product could be viewed as a benefit. Consumer shopping interfaces such as Amazon engaged through the internet may be simultaneously viewed as a benefit and a cost. After all, the user still must invest some time, energy and attain a certain level of proficiency to

operate a computer and navigate to and through the Amazon website. This level of consumer sacrifice may be viewed as comparably insignificant to driving to a local retailer to find the appropriate product and/or service. Conversely, while computers are ubiquitous, not all consumers own or have easy access to a computer or the internet (Valadez & Duran 2007). This statement excludes the necessary skills and knowledge to effectively operate it. These types of connections and the proficiency associated with operating them should be considered when appropriately evaluating the value of a service or offering and the medium through which it is exchanged.

Clearly, the literature contains a vast amount of methods for conceptually measuring and categorizing value. This exposes the subjective nature of value and its ability to encompass many aspects of exchange beyond rudimentary need satisfaction. Unfortunately, not every conceptual measure of value has an associated psychometric scale for operationalization purposes. However, some of the more traditional procedures for measuring value include the contributions of Babin et al. (1994) where the authors developed and refined a scale to measure both hedonic and utilitarian value. Dodds et al. (1991) developed five indicators to measure perceived value. Kantamneni and Coulson (1996) developed a multi-dimensional scale of perceived value that included societal, experiential, functional, and market aspects of value. Sweeney and Soutar (2001) developed and tested a set of scales that included quality, emotional, price, and social as dimensions of perceived value. Petrick (2002) developed a comprehensive set of scales for perceived value that included dimensions such as quality, emotional response, monetary price, behavioral price, and reputation. Each of these traditional measures commonly shares intent to measure consumer value. However, there are clearly other ways to measure value that extends beyond the consumer sphere.

There exist several other measures of value that can be employed for other value stakeholders. For instance, firm value could be measured by Tobin's q where the total market value of the firm is divided by the replacement costs of the firm's assets (Carter et al. 2003; Chung & Pruitt 1994). Gruca and Rego (2005) advocated that future cash flows should be used to measure shareholder value as it is comparable across firms and easily accessible. Talbot (2008) introduced the competing public values framework in Figure 8 to adequately assess the value government provides to the public, i.e. public value. This approach does not provide any single measure to public value but recognizes its complexity and offers a menu of measures from which to judge a governmental agencies impact on public value.

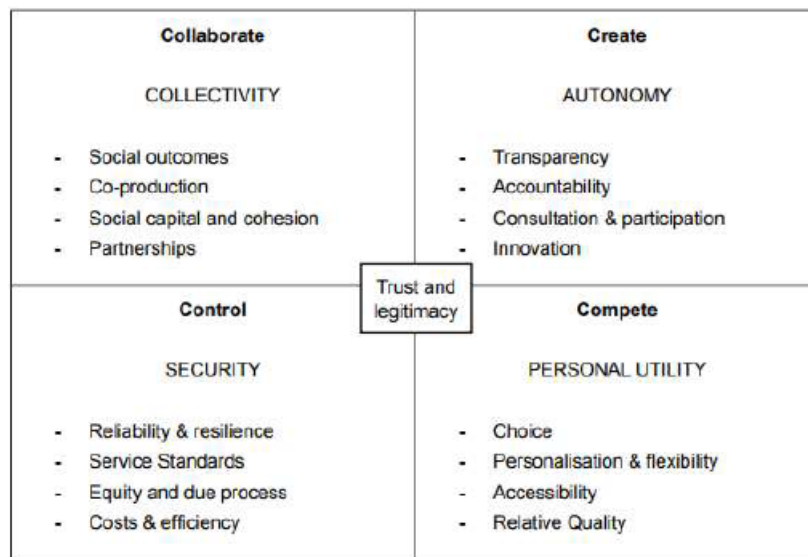


Figure 8. Competing public values.

From the center, trust and legitimacy of government could be measured through public surveys, audits and inspections or complaints. In quadrant 2, collectivity or communal interest that the public aspires to could be measured through indicators such as education, child poverty, etc. In the interest of brevity, it is not the intent of this research to fully explicate Figure 8, the source

document should be reviewed to fulfill that end; rather, reveal that methods exist for government agencies to employ in determining its influence on public value.

Managerial and employee value are measured in any number of idiosyncratic ways. Practitioners apply performance assessments and feedback mechanisms as methods to objectively measure a manager or employee's performance against specific but often firm specific criteria. It would be simpler to ask a manager or an employee how much their yearly salary is and use that as a marker for value; however, salary much like exchange value for a product or service masks the total value that a person provides to a firm or organization. After all, the firm or organization is better off paying that employee or manager a yearly salary than retaining that associate money. This exhibits that the value a manager or employee brings to an organization or firm is greater than the money they are paid. Otherwise, in accordance with neo-classical economics, the job would not exist as every actor to include firms is interested in maximizing their respective utility, i.e. profit. Camisón (2005) explained that distinctive competences such as skills, knowledge, and leadership qualities with components such as technical, reflecting managerial tacit knowledge, and a cognitive component that reflects a manager's personal characteristics, i.e. personality, values, etc., should be considered when measuring managerial performance or value. In addition, innovation, learning, and the ability to refine skill sets should also be evaluated. Camisón (2005) also developed psychometric scales for measuring these distinctive managerial competences that include factors such as problem-solving competence/knowledge, managerial experience, position and exercise of power, managerial leadership, and incentive for change and innovation. Sun (2017) advocated that employee value should be measured across four components, i.e. initiative, judgment, loyalty, and cost efficiency. These components touch on areas such as employee motivation, decision

making ability, dedication to the firm, and whether the employee is worth what he or she is being paid.

From reviewing the literature regarding value measures, it is clear this is not a simple construct to accurately measure and gauge given its multiple dimensions and subjective nature. Equally important as describing how to measure value is the implied duty to explicate how value should not be measured. For instance, it is critical to realize that value is a distinct construct from other similar constructs such as satisfaction. Sweeney and Soutar (2001) reported that value and satisfaction are easily confused but they are not the same since satisfaction is unidimensional and value is multi-dimensional. Additionally, Eggert and Ulaga (2002) found that value and satisfaction can and should be simultaneously conceptualized and measured as distinct constructs. Fundamentally, value is something that can be perceived before exchange and it is something that materializes all at once or over duration of time. On the other hand, Anderson et al. (1994) explained that satisfaction can be viewed from an episodic or cumulative framework. Episodically, satisfaction is a post choice judgment of a distinct purchase event. Cumulatively, satisfaction is an overall temporal assessment based upon the total purchase and consumption experience. Thus, a consumer could be unsatisfied when value emerges and vice versa. For instance, a dining experience with terrible service, e.g. long wait or a mistake in the food ordered could leave a consumer nutritionally fulfilled but highly unsatisfied with the overall experience. Conversely, one could be satisfied when value fails to emerge as anticipated. For example, a commercial aircraft departure delay due to unexpected maintenance could leave passengers with a high sense of satisfaction that the airline is willing to ensure the aircraft is airworthy prior to flight. While the latter may be more difficult to conceptualize, it points out

that satisfaction is not an acceptable measure of value; rather these are complementary constructs.

#### 2.4.4 Storage of Value

The purpose of this section is to explicate that value can be stored across a spectrum of things or products and services that are both physical and intangible in the form of exchange value, production value, or use value. These three types of value are what this study advocates are the processes for value creation. More clearly, value emerges in production where the service offering is shaped, in exchange where money is traded for service and in-use where value for the primary beneficiary fully emerges. Thus, while there are many different measures for value, as discussed in section 2.4.3., those specific types of value, e.g. hedonic, functional, emotional, efficiency, etc., may only emerge in one or all three of these processes. More will be discussed concerning these value creation processes in section 2.4.5.2. Several sources were pivotal to the identification of value storage as a distinct dimension of value. These important scholarly publications are presented in Table 8. The ability to store value for future use is essential to the modern economy. Grubb (2006) defined a store of value as, “allow people to transfer the purchasing power of their present money income or wealth into the future, ideally without a loss of value.” One of the most recognizable artifacts that fulfill this defined capability is money.

Table 8

#### *Value Storage*

<b>Value Storage</b>	<b>Author(s)</b>	<b>Title</b>
Money is the means of payment, the medium of exchange of the economy. And it is a store of value by reason of its general acceptability in the discharge of public and private transactions.	Tobin 1965	Money and economic growth
Like any valued financial claim, bitcoin also serves as a store of value and can become a vehicle for speculative investment.	Lo & Wang 2014	Bitcoin as money?
Gold served as a store of value for primarily its beauty and tobacco for its effects in consumption.	Dubey et al. 2003	Is gold an efficient store of value?

*(table continues)*

<b>Value Storage</b>	<b>Author(s)</b>	<b>Title</b>
Investments can act as a store of value and can include: human education and health, individual productive assets such as animals, farming equipment, houses and domestic equipment, land, trees, wells, and collective assets which include soil conservation, irrigation systems and access to property resources.	Swift 1989	Why are rural people vulnerable to famine?
One views goods (tangible output embedded with value) as the primary focus of economic exchange and “services” (usually plural) as either (1) a restricted type of (intangible) good (i.e., as units of output) or (2) an add-on that enhances the value of a good. We (Vargo and Lusch, 2004a and Lusch and Vargo, 2006a) call this logic goods-dominant (G-D) logic.	Vargo & Lusch 2008c	From goods to service(s): Divergences and convergences of logics
Customer value becomes something a seller proposes and a customer then judges in two forms - exchange value is one kind of judgment made by the customer, and because a ‘product’ is a store of value, judging value-in-use is its confirmation. And so the cyclical S-D logic of marketing turns.	Ballantyne & Varey 2006b	Introducing a dialogical orientation to the service-dominant logic of marketing

Money serves a few important purposes. It is a medium of exchange that helps to increase the frequency of trade, i.e. an intermediary used to avoid the double coincidence of wants required in a bartering system (Berentsen & Rocheteau 2003). It is also one of several primary means of satisfying the store of value capability (Tobin 1965). Money, whether physical or digital, is the lubrication for the global economy. Money is arguably the most fungible asset in the economy. It can be used to acquire any product or service within the market (Tversky 1995). Fungibility is an extremely critical characteristic that not every value store possesses. For instance, a pure 24 carat gold coin is vastly more valuable than a one-hundred-dollar bill. However, it would be nearly impossible for a common retailer to accept that same gold coin in exchange for a product or a service. The retailer would not know what to do or how to value it in comparison to the product or service that it is offering. On the other hand, money in the form of paper, credit, and other digital mediums fulfills this commensurability requirement. Non-fiat money such as crypto currency can also act as a store of value. More popular types of crypto currency such as Bitcoin are a decentralized currency where its buyers discern beforehand the supply of the currency. Thus, it is like a precious metal where its supply is limited and not

controlled by a sovereign government (Lo & Wang 2014; Grinberg 2012). However, money whether centralized or decentralized is not the only store of value.

Dubey et al. (2003) explained that both gold and tobacco have historically served as mediums of exchange and stores of value. Gold served as a store of value for primarily its beauty and tobacco for its effects in consumption. Black (2012) argued that ammunition and firearms are also great stores of value since they have withstood the effects of monetary inflation. In addition, Black (2012) explained that watches, rare coins, and agricultural property act as stores of value due to their scarcity. These examples instantiate that stores of value extend beyond money. However, stores of value are not limited to those assets which are nearly immune to exchange value depreciation. Swift (1989) identified other types of stores of value to be both tangible and intangible and how each could be used to prevent famine. For instance, investments can act as a store of value and can include: human education and health, individual productive assets such as animals, farming equipment, houses and domestic equipment, land, trees, wells, and collective assets which include soil conservation, irrigation systems and access to property resources. Swift (1989) also included food stores, granaries, jewelry, gold, money or bank accounts as value stores. It would be difficult to argue that education is not something that should be considered a store of value, i.e. something than can be stored in the mind and activated for future use. These examples clarify that stores of value are not limited in scope to things like money or gold but can include more broader aspects such as claims where groups or friends help each other as a resource redistribution mechanism when times are difficult, i.e. famine. More importantly, Swift (1989) highlights that value can be stored for purposes of exchange value, i.e. purchasing power, production value, i.e. knowledge, etc., and use value, i.e. products and services.



While Grubb (2006) definition of a store of value clearly articulates the importance of transferring purchasing power from the present to the future, it does not state that it must be fully preserved, only that it is ideal. In other words, concepts such as redemption value as outlined in the value measures section, serve an important purpose for those tangible and intangible vehicles that store exchange value that could and likely will diminish over time due to excessive use, a lack of consumer demand, etc. Vargo and Lusch (2008c) explained that products can be viewed as either embedded with value, i.e. a G-D logic, or as a service delivery mechanism, i.e. S-D logic. Interestingly, the fathers of S-D Logic did not discriminate between types of value, which implies that products are embedded with all types of value or knowledge and emerge when acted upon. This research concurs that products serve a subordinate role to service delivery and products should not be viewed as a firm's measure of value creation. However, the notion that products contain value, i.e. production, exchange and use value through embedded knowledge remains relevant in today's service economy and to the S-D logic paradigm. As such, within an S-D Logic view the value that products contain are not inherently intrinsic. In other words, value emerges when the consumer interacts with the product in-use or through exchange, i.e. exchange value. Given this view, products and services such as books, YouTube, podcasts, the internet, combs, tools, furniture, appliances, etc., could also store some or no exchange value, production value, or use value. For instance, a tool that is used by a commercial mechanic stores production value but could also be resold for a specific exchange value to a non-commercial mechanic where its value will be realized in-use. A book could be used to educate workers involved in production activities or a consumer who will activate that knowledge in use. Moreover, that book could be exchanged with another beneficiary for a specific price. It is also entirely possible for something to have little to no exchange value yet contain use and or

production value. For instance, consider a family picture taken from a commercial camera. In most cases, this picture won't be valued by another person outside of the immediate family; thus, its exchange value is likely small or nil. However, the pictures use value could be great to those in the immediate family. These examples depict that certain products may retain and store production, exchange, and use value. Thus, a spectrum of products and services that contain embedded value emerge which obfuscates the overall value concept. However, the value concept can be simplified by acknowledging that multiple vehicles can store and deliver value for producers, i.e. firms, consumers and other beneficiaries. By decomposing value to include value storage as a key dimension, this research advocates that it declutters and simplifies the value concept.

In summary, the purpose of this section was to review the literature that discussed stores of value and explicate how a spectrum of products and services can store production, exchange, and use value. By highlighting this spectrum of value storage, e.g. physical to digital products, money, currencies, precious metals, art, services, etc., this research intended to justify the necessity of value storage as a distinct yet important dimension of value to enhance its understanding and application power.

#### 2.4.5 Creation of Value

If value were an animal, then value creation must include how animals are conceived and birthed. The purpose of this section is two-fold. First, this section will unravel the history of value creation with the intent of providing some clarity on its evolution. The goal is not to explicate its entire history; rather to elucidate the largest pivot points to expose an evolution of how value has been created from the pre-industrial revolution to present day. In doing so, this section will fulfill the purpose of illustrating why the concept of value creation is ambiguous and

how unraveling its history will add precision. Next, this section will explicate how value creation emerges in modern times through its key elements and three separate and non-distinct processes. The lack of a clear demarcation between these processes is another important factor that contributes to the ambiguity of value creation. This will be discussed more in the latter portions of this section. Several publications were pivotal to the identification of value creation as a needed dimension of value. Those scholarly works are presented in Table 9.

Table 9 presents the varying scholarly viewpoints of what value creation is and how and when it occurs, e.g. in use versus production versus in exchange. S-D Logic implies that value is only created when it emerges for the primary beneficiary, i.e. the consumer. However, S-D Logic subsumes G-D Logic which advocates that value is created by the firm and subsequently destroyed by the consumer. Lusch et al. (2007a) clarified this issue when he explained that co-production in S-D Logic differs with similar production concepts in G-D Logic as the consumer is endogenous to the process. However, S-D Logic intentionally captures upstream production activities as co-production within its lexicon omitting any association with value. The research infers that this concept is presented as such to appropriately orient the academic or practitioner to the value that emerges for the primary beneficiary; not that firms do not create value (Vargo et al. 2008). Thus, value that emerges and subsequently defined by the consumer or primary beneficiary is superordinate to any value that is created in upstream activities, i.e. in production or in exchange (Lusch et al. 2007a). In other words, value that firms create in production is stored potential value (Ballantyne & Varey 2006a). Otherwise, how can value be co-created if the service provider has nothing of value to offer, i.e. the value proposition?

Table 9

*Value Creation*

<b>Value Creation</b>	<b>Author(s)</b>	<b>Title</b>	<b>Journal</b>
Value creation is a process through which the user becomes better off in some respect (Gronroos, 2008) or which increases the customer's well-being (Vargo et al., 2008). Value creation is not an all-encompassing process. Consequently, design, development and manufacturing of resources, and back-office processes, are not part of value creation.	Grönroos & Voima 2013	Critical service logic: making sense of value creation and co-creation	Journal of the Academy of Marketing Science
It is important to keep apart production and value creation, as they are different constructs. Production is the process of making the resources customers integrate in their consumption or usage processes. Value creation is the process of creating value-in-use out of such resources. Because value creation takes place during usage and integration of resources, this dynamic nature of the process has to be reflected in the value concept used. Value creation is only possible when a good or service is consumed. An unsold good has no value, and a service provider without customers cannot produce anything (Gummesson, 1998). Value for customers is created throughout the relationship by the customer. The focus is not on products but on the customers' value creating process where value emerges for customers and is perceived by them (Gronroos, 2000). We agree with both Gummesson and Gronroos; the consumer must determine value and participate in creating it (Vargo and Lusch, 2004).	Heinonen et al. 2010  Lusch & Vargo 2006b	A customer dominant logic of service  Service-Dominant logic: reactions, reflections and refinements	Journal of Service Management  Marketing Theory
Value creation at the individual level involves creativity and job performance, at the organizational level it may mean innovation and knowledge creation, and at the societal level it may involve firm-level innovation and entrepreneurship, as well as policies and incentives for entrepreneurship.	Sheth & Uslay 2007	Implications of the revised definition of marketing	Journal of Public Policy & Marketing
Corporate governance has recently become a critical step in the value creation process for organizations of all sizes. Stakeholder engagement and reporting, in addition to traditional financial reporting, seeks to produce and deliver relevant information to all participants in the value creation process	Smith 2015	Accounting, Governance and Stakeholder Reporting, and Economic Value Creation	The Journal of Applied Business and Economics

*(table continues)*

<b>Value Creation</b>	<b>Author(s)</b>	<b>Title</b>	<b>Journal</b>
This notion is echoed by Merchant (2014), who states that value creation is not only multi-dimensional but depends on firm-specific factors. Steenkamp (2014) found that the processes and ways in which brand value contributes to firm value differ for different firms. In addition, Fabrizi (2014) found that the chief marketing officer of a company, if correctly incentivized, could contribute more to the value of a company than the chief executive officer, whilst Basuroy et al. (2014) found that executive compensation plays an important role in explaining firm value. A superior supply chain management system could also give a company a comparative advantage in value creation (Ellinger et al., 2012). An increase in share prices can be expected with an increased level of corporate social responsibility disclosure (De Klerk, de Villiers and van Staden, 2015).	Hall 2016	Industry-specific determinants of shareholder value creation	Studies in Economics and Finance
Enhanced Supply Chain Management capabilities can create efficiencies and cost savings across a wide range of business processes.	Horvath 2001	Collaboration: the key to value creation in supply chain management	Supply Chain Management

From another vantage point, S-D Logic implies that nothing has intrinsic value since emphasis is placed on value co-creation (Vargo et al. 2008). Gummesson (1998) suggested that since the consumer is the focal point of marketing, then an unsold good possesses no value and service providers cannot produce in absence of consumer demand. More clearly, the most important value or use value only emerges when an extrinsic force, i.e. the consumer interacts with the service offering. The risk in this type of calculated presentation is that by focusing attention towards use-value or value co-creation, one could misinterpret the metaphysics of value and how it is created. Thus, to omit it or focus attention away from it, i.e. the existence of production value or exchange value, unintentionally adds more confusion to the topic of value and its creation or worse implies that it does not exist in these upstream processes. However, this level of academic posturing is not the only factor that contributes to the complexity of value creation. The way in which value has been historically created also adds ambiguity. Figure 9 depicts a historical view of value creation (Vital 2013).

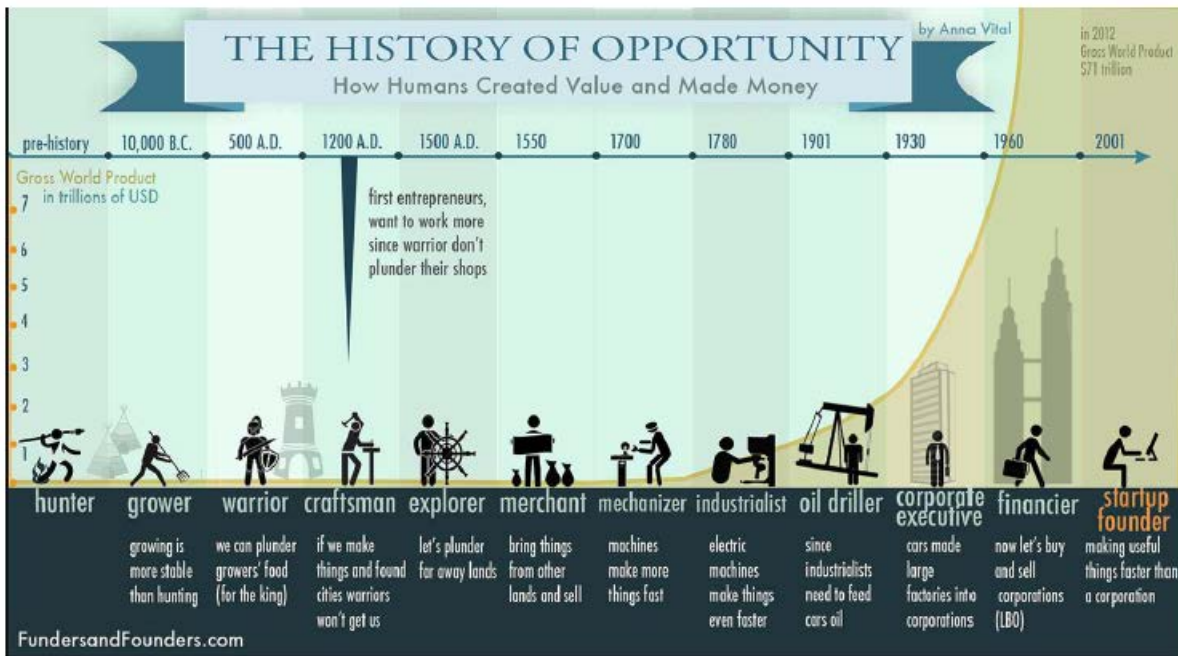


Figure 9. History of opportunity and value creation.

Figure 9 illustrates a historical and evolutionary mankind timeline for value creation. In accordance with Figure 9, humans evolved from a basic existence, i.e. hunters and gatherers, into highly sophisticated micro-specialists, i.e. growers, warriors, craftsmen, explorers, and merchants over a lengthy time span of several thousand years. However, the most recent 500 years have presented extraordinary value creation and growth fueled by accelerating human innovation. This chart also implicitly captures mankind's transition from direct exchange, i.e. bartering, to market-based exchange that occurs within ecosystems which involve multiple actors, rules, and institutions. These ecosystems offer the platforms to generate a tremendous amount of value that would otherwise not be possible in isolation. However, the status quo took several revolutionary cycles to attain; the first of which was the Agricultural Revolution.

Homo sapiens have existed for approximately 300,000 years (Ronson 2017). For most of that time span, man's creation of value was straightforward by comparison to contemporary times. It began with humans applying survival skills and rudimentary tools to hunt and gather. This mostly nomadic and elementary lifestyle created only the value that was needed for immediate survival. This type of value creation continued with negligible change until the Neolithic or Agricultural Revolution which occurred somewhere between 10,000 and 5,000 years ago (Weisdorf 2005). This revolution was in fact more like a timely evolution as it did not occur rapidly but slowly with unclear transitions. However, it enabled the growth and preservation of surplus food. This meant that Homo sapiens could communalize and microspecialize, e.g. learn to engineer and employ manufacturing tools, craft pottery, sew and stitch clothing, and create buildings, without the immediate threat of starvation. This activity symbolized the departure from the hunter gatherer mode of survival. Moreover, this event marked the beginning of civilization where evidence from early townships such as Jericho, Israel

instantiated the advancement of humans into sustainable and stable communities (Downing ; Cole 1959).

With the division of labor, economic markets emerged where specialists depended on others for subsistence goods. Initially, these goods were exchanged through a bartering system. However, due to its inefficiency, i.e. the coincidence of wants, the bartering system was quickly replaced by other intermediaries, e.g. cattle, tobacco, animal skins, chocolate, salt, and butter, which were in time displaced by money. More importantly, the emergence of markets and microspecialization could not have occurred had man not learned to cultivate plants and domesticate animals (Cole 1959). The Neolithic Revolution was the first major milestone to enabling the development and existence of ecosystems where actors relied on others for subsistence and sustainment purposes. However, a major contribution to the ambiguity of value creation is that the next generation of value creation methods do not fully subsume the previous. Thus, while mankind has greatly advanced due to the Neolithic Revolution, there exist pockets of humans that continue to survive as hunter gatherers, e.g. Eskimo's, Australian Aborigines, central Africa Pygmy populations, the click-speaking Tanzanias, and the Bushmen from the Kalahari Desert region in southern Africa (Henn et al. 2011). Furthermore, this antiquated mode of value creation is also seen as recreational for many more modern enthusiasts within ecosystems, e.g. sport hunters and safari seekers (Sharp & Wollscheid 2009).

Since the Neolithic Revolution, man has developed several important innovations that revolutionized how value is created. For instance, the printing press was first introduced in the mid-fifteenth century in Mainz, Germany. This innovation enabled man to enter the Age of Enlightenment and facilitated the spread of new ideas and knowledge. Other notable innovations include the compass employed for exploration purposes that led to the Age of Discovery and



enabled the Industrial Revolution. Fiat paper money backed by governments enabled global economics and electronic banking. The electric light in the late nineteenth century allowed more efficient value creation during hours of darkness in homes, vehicles, and work places. Other communication innovations such as the telegraph, radio, telephone and e-mail enabled the ability to send messages and pass information across greater distances, which enhances government, trade, industrial, and banking business. Finally, the steam engine paved the way for other advances such as airplanes, vehicles, trains, and spacecraft (Andrews 2012). While this list is certainly not all-inclusive, it emphasizes that man's ability to innovate directly enhances value creation efforts. However, with each innovation man's ability to create value stems from a continuum of rudimentary to evolving platforms. For instance, man can still use horses for transportation or something more modern such as the jet airplane. This continuum of value creation platforms contributes to the ambiguity that clouds value creation since each innovation may not fully subsume the previous.

The next great event to prominently change value creation was the Industrial Revolution, which occurred in the mid-eighteenth century in Great Britain. With this change, centralized factories pooled workers and machines to create economies of scale. In addition, this revolution, while gradual, fundamentally transformed agriculture, manufacturing, transportation and social and economic policies. New agricultural practices, i.e. fertilization, metal tools, and centralized and concentrated farming enabled an abundance of food and materials, i.e. wool and cotton. Enhancements in technology and industrial structuring fueled more efficient means of production which boosted profits and enabled mass construction. Consequently, the population rate increased significantly. Young people could marry earlier and procreate. Dwellings centralized near production centers. These factories were sometimes located in existing towns to siphon

from a large pool of labor. On other occasions, production centers located near hydro-power plants or near iron ore mills to economize the transport of bulk materials. The development of the steam engine enhanced machinery production output but also required a source of water. As the demand for new low skilled labor jobs grew, cities began overcrowding and unsanitary conditions unintentionally created disease and enhanced the spread of cholera and typhoid (Montagna 1981).

Despite the spread of disease, the Industrial Revolution and its enhanced productivity created the conditions for remarkable prosperity. It positively impacted several countries and geographical regions. For instance, income for Americans grew by approximately 2,200 percent from the time of President Monroe's tenure (1807-1815) to President Clinton's (1992-2000). This was a direct result of the economic impact from the Industrial Revolution. However, similar economic growth patterns were experienced in Great Britain with a factor fifteen, Finland with a factor of twenty-nine, the Netherlands with a factor of ten (McCloskey 1981). Figure 10 captures a history of world economic growth (Clark 2014).

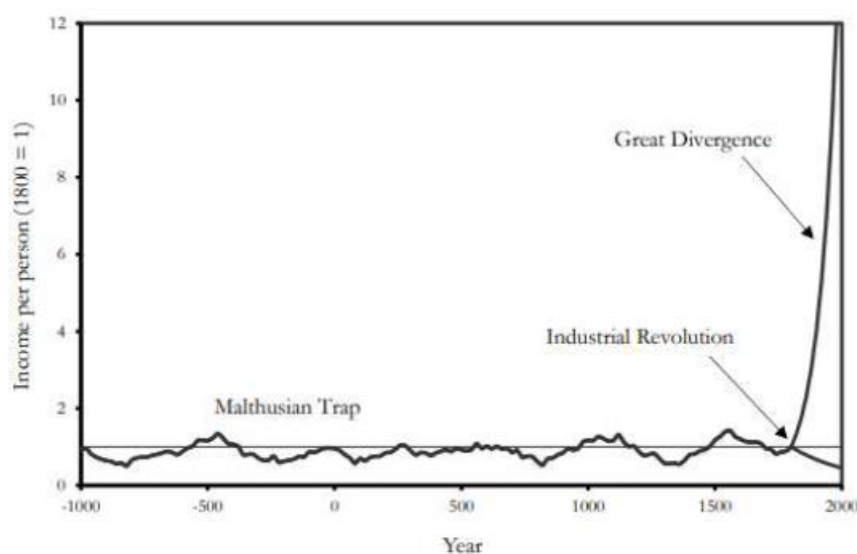


Figure 10. World economic growth.

Figure 10 tells us that for several thousand years mankind did not experience any significant and sustainable economic growth, measured as income per person. However, this in fact reaches as far back as 10,000 BC (Clark 2014). This unsustained growth remained constant, until the Industrial Revolution. Consequently, this chart also highlights the exponential growth in value creation that stems from advancements in machinery, the development of factories, the enhancements in textiles and farming, and the transportation sector.

Following the Industrial Revolution, other key advancements occurred. The Bessemer process enabled an efficient manner to craft steel which quickly replaced iron for tools train engines, bridges, and railroads. Henry Ford employed the assembly line to mass produce vehicles and leverage economies of scale. This resulted in more affordable consumer vehicles. The first airplane developed by Wilbur and Orville Wright took flight in 1903 for approximately 12 seconds. Thomas Edison's electric light bulb enabled round the clock operations within factories. Since the Industrial Revolution people began the transition from rural to urban living, which created large cities, a desire for schools and entertainment (Labor 1990). This growth in mass produced goods created the collective need for an enhanced and robust transportation infrastructure. Consequently, steam powered boats were operated to carry freight across the Atlantic Ocean and the steam powered train was used to transport raw materials. In addition, new techniques were developed to create more durable and less muddy roads (Staff 2009). As a result, the global economy grew for many decades following the Industrial Revolution. Several world wars clearly made an impact on mankind; however, man continued to communalize and synergize competences to create more and more value within industrial societies. This growth continued but was once again accelerated by an event known as the Digital or Technological Revolution.

The Digital Revolution represents the gradual mainstream transition from analogue and mechanical technologies to digital. It began sometime in the mid-twentieth century and is still occurring for the foreseeable future. Inventions such as the transistor paved the way for advanced computers and microprocessors. These inventions led to the creation of the home computer and the internet (Pariona 2017). In the late twentieth century, computers achieved ubiquity and were applied in homes, schools, businesses and industry (Streitz & Nixon 2005). Additionally, the storing of information slowly transformed from analogue to digital; thereby increasing storage capacity and accessibility. Gradually, most devices and gadgets converted from analogue to the digital realm, e.g. fax, recording, cinematography, television, radio, phones, clocks and watches, printing, etc. With this remarkable change in how service was provided, there were many societal impacts.

With the Digital Revolution, societies could create value from a fresh platform that removed many historical barriers to entry. Digital technologies closed geographic distances enabling people and global economies to become more interconnected. Consequently, ideas can be instantly shared on internet forums and other web-based mediums. New innovations such as computer aided design and 3D printing could be transformational platforms from which to create value. Overall, the world has benefited greatly from enhanced productivity, increases in product and service quality, access to global consumer goods, global labor and enhanced consumer convenience. However, the opportunities for growth in the digital domain continue in sectors such as health care, government and education. Electronic commerce could also experience greater interest from consumers (Atkinson & McKay 2007). It has grown by approximately 400 percent from 1999 to 2009. Many consumers are transitioning from the brick and mortar model of shopping to online retailers such as eBay and Amazon (Satell 2014). This shows that the

Digital Revolution could not only greatly impact and benefit consumers but that it could also alter future employment opportunities. Low skilled jobs replaced by automation, e.g. fast food cashiers, and the potential for its application could remove more highly skilled jobs from the workforce, e.g. radiologists, vehicle operators, airline pilots, warehouse workers, etc. While this may represent a positive shift for consumers, i.e. the potential for lower priced service offerings, it may displace many traditional jobs and developmental employment opportunities. However, history has revealed that new jobs will also transpire with technological change (Morgenstern 2016).

The purpose of this section was to provide the evolutionary highlights and milestones of how mankind has created value through history. It underscores a succession of value created for the benefit of oneself or immediate family, toward micro-specialization where value is created within an ecosystem that has progressively become more interconnected and efficient for the benefit of another. Today's service ecosystems represent a web of interlocking service providers that behave and interact for the long-term purpose of service provision and survival. As this section explicated, three critical revolutions occurred which have shaped and transformed man's ability to create value, i.e. Neolithic, Industrial, and Digital. While each of these events have either established or changed civilization, it is important to note that with each new revolution, it does not entirely subsume the value creation practices of the previous. Thus, a consumer or provider could employ value creation methods or services from yesteryears value generation practices, which obfuscates this important dimension of value.

#### 2.4.5.1 S-D Logic Value Creation Continuum Conceptual Framework

Several value related frameworks and models have been engineered and published by scholars. A thorough search for these frameworks and models is presented in Appendix C for

reference. While each framework or model provides an academic and practical contribution, this research advocates that academia and practitioners need a holistic and comprehensive framework capable of capturing the most important aspects of value creation thereby creating a panoramic view from which to examine its features. The purpose of Figure 11 is to provide a solid conceptual foundation from which to intellectually ground value creation to enhance understanding and future development of this complex concept. Consequently, we derived this framework from the contributions of several important scholars.

Chathoth et al. (2013) proposed that value creation was a spectrum anchored by co-production and co-creation opportunities. This research was the first to advocate that these two concepts were not diametrically opposed but two complements of value creation. We adopt and advance this notion by capturing the value creation continuum in a conceptual framework that enhances understanding of the value creation processes. Figure 11 highlights that the value creation continuum is anchored by value co-production and co-creation activities, two of the three value creation processes. Leyden value is a concept that lies on the left portion of the spectrum. Leyden value is something that is co-produced between economic actors within ecosystems but that value has yet to be extracted in-use by the consumer (Ramirez 1999). Value-in-exchange, the third value creation process, is also centered in the continuum as it represents the money and embedded value transfer that occurs during the episodic and continuous process of service exchange between retailers and consumers at the point of sale. Value-in-use is on the right side of the continuum to represent output of the customer or beneficiary co-creating with the service provider, either directly or indirectly, by engaging the service offering. Within Figure 11, the horizontal axis is anchored by a firm's ecosystem on the left and a customer's ecosystem on the right, both of which include varying degrees of partners,

humans, and other knowledge based resources to enhance the value creation process by increasing access to dynamic resources. While these ecosystems appear separate and distinct, they are in fact interconnected and nested; visually this was challenging to achieve. The three circular arrow components should be read in a clockwise fashion. At the centerpiece, Figure 11 shows a firm interacting with an end user where resources are integrated, i.e. knowledge and skills, wants and desires, for new product and service development. Next, the service provider can take these ideas, mutate them and innovate to co-produce value.

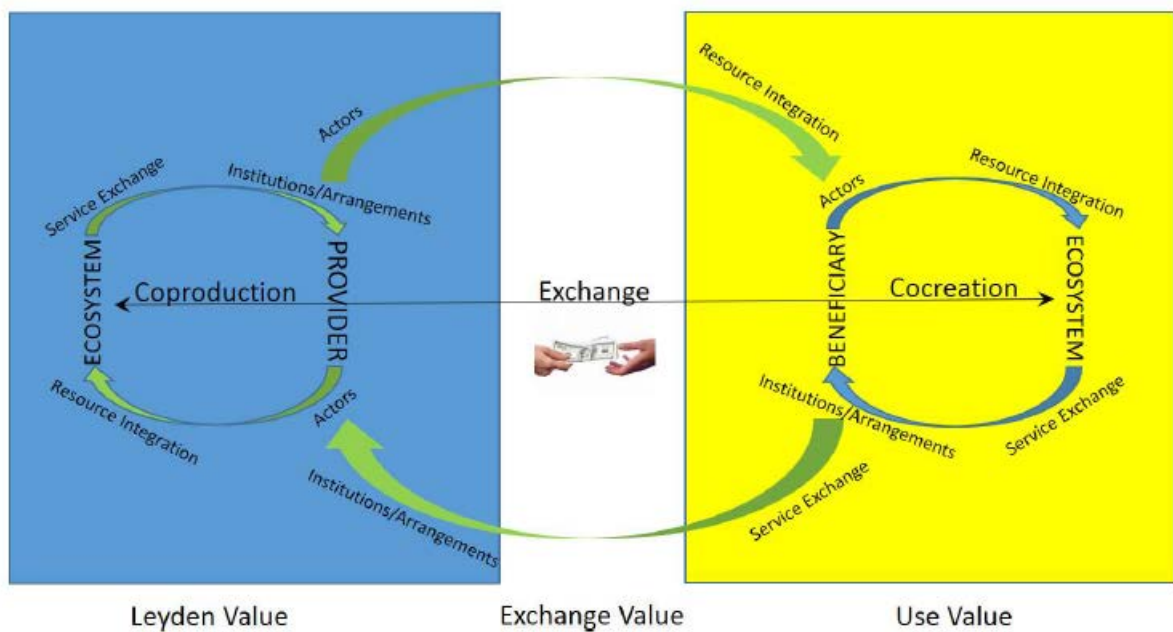


Figure 11. S-D logic value creation continuum conceptual framework.

The output of this process is value co-production, since an end user was invited into the value creation process. Conversely, a service provide can enter the consumer’s sphere to directly co-create value, e.g. a wedding photographer, police officer, etc. Both circular anchors in Figure 11 conceptually represent a unique portion of the total value creation process. Either a firm or an end user can interact with its ecosystem, i.e. partners and other knowledge resources, to integrate resources for the purposes of creating value, which drives potentially enhanced value co-

production for business-to-business activities or co-creation opportunities for consumers. While each of these circular outcomes implies value-creation, this likely will not always be the case. However, the result of failing can also generate value through personal and organizational learning that occurs in the value creation process. Hence, for both firms and customers the growth and development of knowledge, skills, and abilities is a dynamic output of the value creation process. After all, Thomas Edison discovered over ten thousand ways to not engineer a light bulb (Furr 2010). This example instantiates the dynamism that occurs within an otherwise visually static framework.

The power of this conceptual framework is its purposeful simplicity. It is also comprehensive as it considers value creation actions by service providers and consumers within each respective and interlinked ecosystem. Moreover, this framework captures each of the core value creation processes, i.e. co-production, exchange, and co-creation, and presents them in a synergistic fashion. It assumes a panoramic outlook on value creation to reveal how each of the three core value creation processes fit within a much larger value creation framework. One aspect that makes value creation difficult to accurately capture is that each sphere can penetrate the other. For instance, the value exchange sphere can also simultaneously occur in co-production. Firms and associate suppliers exchange money routinely. In addition, customers that drive a car for personal use are co-creating but could also use it as an Uber or Lyft driver. This makes the car's use instantly shift from co-creation to co-production where the consumer now assumes the role as service provider. To simplify, the value creation conceptual framework is purposefully static, yet it also acknowledges that these value creation processes could intermingle and penetrate each other's respective sphere in accordance with the real-time actions



of the respective actors. The proceeding sections will further discuss the value creation processes and key elements presented in Figure 11.

#### 2.4.5.2 Value Creation Processes

##### 2.4.5.2.1 Value Co-Production

Normann and Ramirez (1993) explained that in today's globally competitive environment, high performing companies no longer add value; rather they reinvent value. These companies focus on the value creating systems, which integrate key economic actors, i.e. suppliers, partners, customers, and allies to interact and co-produce value. Moreover, the goal of these successful companies is to appropriately match competencies and customers. This strategy provides the greatest opportunity for the right actors to integrate the most compatible resources, i.e. knowledge and skills, to create or co-produce value. Ulaga and Chacour (2001) argued that value is created in three domains: relationships with suppliers, alliance partnering, and with customers. This research advocates that the first two domains fall within the co-production process with the third domain being captured in all three value creation processes depicted in Figure 11. The latter domain will be discussed in more detail in the exchange and co-creation of value processes.

Ramirez (1999) developed Table 10 to expose the difference between the industrial view and co-productive view both of which have been subsumed by G-D Logic and S-D Logic respectively. In the co-productive view, value is co-produced between economic actors over time where an emphasis is placed on co-invention and interaction. The Industrial view, i.e. the G-D view, value is added by the firm and destroyed by customers. Table 10 also highlights that value changes when viewed from different paradigms, i.e. from added to co-invented. In addition, the G-D view or Industrial view assumes that value is realized in exchange; whereas in

the co-productive view or S-D view value is primarily realized in use and over time. However, this should not imply that value does not emerge in upstream activities, i.e. supply chain management, marketing, etc. Rather, S-D Logic intentionally focuses attention towards the co-creation of value which resides in the sphere of the ultimate beneficiary or the right portion of the spectrum in Figure 11 but it also subsumes previous views, i.e. Industrial or G-D view.

Table 10

*Industrial and Co-Productive View*

<b>Industrial View</b>	<b>Co-Productive View</b>
Value creation is sequential, unidirectionally transitive, best described in 'value chains'	Value creation is synchronic, interactive, best described in 'value constellations'
All managed values can be measured in monetary terms	Some managed values cannot be measured or monetized
Value is added	Values are co-invented, combined and reconciled
Value a function of utility and rarity	Exchange the source of utility and rarity
Values are 'objective' (exchange) and 'subjective' (utility)	Values are 'contingent' and 'actual' (established interactively)
Customers destroy value	Customers (co-)create values
Value 'realized' at transaction, only for supplier (event)	Value is co-produced, with customer, over time-for both co-producers (relationship)
Three-sector models pertinent	Three sector models no longer pertinent
<i>(table continues)</i>	
Services a 'separate' activity	Services a framework for all activities considered as co-produced
Consumption not a factor of production	Consumers managed as factors of production (assets)
Economic actors analyzed holding one primary role at a time	Economic actors analyzed as holding several different roles simultaneously
Firm and activity are units of analysis	Interactions (offerings) are units of analysis

As Chathoth et al. (2013) explained co-production is a process where value is created and lies on the continuum as one anchor where co-creation is the other. Co-production insinuates multiple actors combining and integrating resources together to produce or shape the service offering. This could include actors such as suppliers, consumers, supply chain partner's, shareholders, etc. Additionally, the co-production process is not so different from the value co-creation process outlined by Vargo and Lusch (2016). Since all actors are resource integrators,

this research extracted the value co-creation process introduced by Vargo and Lusch (2016) and repurposed it in the co-production process depicted in Figure 11. Its process is identical to co-creation whereas its difference lies in its position on the value creation continuum. More clearly, co-production is a process-based series of activities that occur in a sphere outside of co-creation. For instance, co-invention or co-design of the service offering falls within the domain of co-production. A consumer using the self-checkout or building an IKEA furniture set also resides within the sphere of co-production. This research advocates that co-production efforts lead to value creation, which can emerge as stored or Leyden value. For instance, the development of a core offering could result in stored value that awaits extraction from the primary beneficiary. Furthermore, a customer's usage of a grocer self-checkout could create stored value in the form of time savings. The co-production process includes actors engaged in resource integration for the purposes of service exchange that are enabled and constrained by institutions and institutional arrangements within service ecosystems. Each of these key elements contained within the co-production and co-creation processes is explained in further detail in section 2.4.5.3.

#### 2.4.5.2.2 Exchange Value

Aristotle believed that exchange value was a consumer's aspiration for utility (Gordon 1964). Consumers trade money for a service offering with the belief that they will be better off because of the exchange (Lusch et al. 2007b). If this was not the case, the exchange would not occur. Conversely, the service provider applies the money gained from the exchange to acquire additional benefits, e.g. compensate employees, acquire new systems and technologies, reinvest in its core competency, etc. According to Aristotle, money solves the problem of incommensurability of wants and needs to enable efficient and effective exchange between

economic and social actors (Fleetwood 1997). Thus, money is a critical component to the exchange value creation process. While S-D Logic primarily focuses towards value co-created in use (Lusch 2011), Peñaloza and Venkatesh (2006) advocated that value should be viewed as created in both exchange and use. These scholars did not want to constrain marketers to production and consumers to consumption; rather a more holistic approach should be assumed to appropriately view value as something created in both the exchange and use value creation processes. More recently, Smith et al. (2014) also advocated that both exchange and use value are value creation processes. Consequently, the contributions from these scholars reveal that value is created in both use and exchange. Next, this research will discuss the final value creation process; it is depicted as the co-creation process located on the far right of the value creation continuum in Figure 11.

#### 2.4.5.2.3 Value Co-Creation

While value co-creation has recently become popularized with the advent of S-D Logic, it has in fact existed for thousands of years. The process of multiple actors, i.e. firm-to-consumer or consumer-to-consumer, cooperating and interacting to create value is an old phenomenon. However, the view of value's generation as being co-created is novel. In simple terms, value co-creation is the customer realization of the service offering to obtain value-in-use (Ng et al. 2010) e.g. a consumer using an iPhone. While customers are always co-creators of value, they may not always be co-producers of the firm's offering. More importantly, Chandler and Vargo (2011) proposed that rather than viewing value as created by a single actor, value is created as the joint integration of resources by the multiple actors associated with an exchange. Thus, most of value that is created on the far right of the value creation continuum, or even the entire continuum, is generated by multiple economic and social actors. For instance, a consumer could co-create

value by interacting with a computer at his or her domicile, which was built by a construction company and powered by an electric company with the internet being fed from a distant service provider. This example instantiates not all but the multitude of actors at play for a beneficiary to co-create value in today's interconnected service ecosystems. The next section will highlight what Vargo and Lusch (2016) introduced as the key elements in the value co-creation or S-D Logic process.

### 2.4.5.3 Value Creation Key Elements

Vargo and Lusch (2016) introduced the S-D Logic process that focused on the key elements associated with value co-creation. Each of these key elements formed to reveal the value co-creation process presented in Figure 12 (Vargo & Lusch 2016).



*Figure 12.* The narrative and process of S-D logic.

This research adopted these elements and appropriately applied them to a much broader schema than value co-creation alone. Figure 11 highlights that broad schema and employed the following key elements adopted from Vargo and Lusch (2016), i.e. actors, resource integration,

ecosystems, service exchange, institutions & institutional arrangements. A brief explanation of each key element is what follows.

#### 2.4.5.3.1 Actors

Vargo and Lusch (2016) explained that all actors do the same things. More clearly, all actors integrate resources and conduct service exchange for the eventual purpose of co-creating value. However, the employment of the term actors into the S-D Logic lexicon was not by accident. Vargo and Lusch (2016) explicated that its purpose was to serve a much broader perspective beyond the constraining firm-customer dyad. The intent was not to imply that all actors are congruent; rather to remove them from any formal singular role since an actor may assume multiple roles, e.g. provider and beneficiary. For instance, a service provider could benefit from relationships with other firms within its ecosystem while simultaneously providing a service stream to its primary customer, i.e. the beneficiary (Vargo & Lusch 2011a).

#### 2.4.5.3.2 Resource Integration

To capture the concept of knowledge and resource sharing to create fresh ideas, innovations, materials and technologies, we explicate the key S-D Logic resource integration concept. Resource integration is also an action oriented concept that reflects the combining of operant and operand resources or knowledge and material transfers between participants to develop service offerings, innovations, new ideas, and technologies (Mele et al. 2010). This process is similar to a metaheuristic known as a genetic algorithm, which represents a computation model that replicates the Darwinian evolution process. This evolutionary algorithm takes a population of chromosomes and provides opportunities for reproduction such that the chromosomes strive towards a more optimal solution to the focus problem. More specifically, those chromosomes which characterize the best solutions are given opportunities to reproduce in

an effort to identify the global optimum solution (Whitley 1994; Deaven & Ho 1995).

Similarly, resource integration involves mixing unique ideas from participants and seeks to find something greater than the status quo solution. To further elucidate, resource integration is a mating process of ideas to create revolutionary ideas, innovations and technologies. Similar in many aspects to the genetic algorithm, resource integration does not guarantee the most innovative output. Most likely it will lead to an output that is not fully desirable by both participants (Harford 2011). However, it is the persistent and iterative continuation of these resource integration efforts that could yield desirable and unexpected or accidental yet positive results.

Similar to resource integration, innovation is an incredibly important yet ambiguous concept. The word itself implies an insular or isolated amorphous knowledge based activity that yields new and creative ideas that help attain an objective, i.e. sustained competitive advantage (Kandampully 2002). However, within the S-D Logic lexicon, innovation is something that results from multiple actors participating in resource integration to enhance the customer's value co-creation experience (Mele et al. 2010; Michel et al. 2008b). Within this collaborative and diverse exchange, ideas mutate and lead to better more creative and refined solutions and service offerings (Vargo et al. 2015; Vargo 2013). No one works alone. In his efforts to create the phonograph, Sir Thomas Edison applied tools, materials, and technologies that were not of his construction (Edison 1878). Similarly, firms exploit customers, new technologies, internal and external people with diverse cultures, backgrounds, and perspectives with the explicit purpose to innovate. This statement holds even if innovation is conducted within the firm (Mele et al. 2010). However, in today's global economy firms often rely on novel methods and mechanisms to incentivize innovation from its supply chain partners and network actors. For instance,

Performance Based Contracting is a governance structure that monetizes future cost avoidance pools into opportunities for immediate reinvestment in core competencies, technologies, ideas, etc. A performance based architecture enables this type of innovative spirit by employing a guaranteed multi-year fixed price contract (Randall et al. 2010; Randall et al. 2011). This mechanism is an instantiation of S-D logic through continuous value streams, a customer orientation, and a relational view from service provider to beneficiary. More importantly, it reinforces the notion that innovation precedes value creation. Consequently, innovation is a critical component to a firm's sustained ability to co-create value with its customers.

Innovation is an interactive activity that can substantially create value. Flint (2006) described innovation as a dynamic process that occurs between service providers and customers to generate value. Innovation can influence how customers co-create value and it can impact markets, prices, and actor profits (Michel et al. 2008a). Ordanini and Parasuraman (2011) found that service providers who engage both outside stakeholders and direct customers leads to greater levels of innovation. Moreover, if service providers desire to improve performance through innovation, they should seek inputs from outside of the core organization, i.e. business partners, customers, etc. Furthermore, all innovation emerges through actor-to-actor resource integration, where innovation is a boundless activity of creation, ideas, and collaboration (Lusch & Nambisan 2015). Lee et al. (2012a) described co-innovation as a platform to create value through convergence, collaboration, and co-creation with partners, i.e. suppliers, outsiders, customers, etc. Thus, we suggest the S-D Logic lexicon adopt co-innovation as the appropriate terminology since all new idea generation emerges from actor-to-actor resource integration, where stakeholders, customers, and suppliers take on the co-innovators role (Mele et al. 2010). This suggestion, while seemingly minor, discloses an important distinction between an internal



activity of innovating within the core of the service provider (the firm) versus the service provider continuously innovating with another actor or a network of actors (Vargo et al. 2015). The importance of innovation was highlighted by Adam Smith when he witnessed manufacturing investing into research and development as a specialized trade. He remarked that it is now the duty of philosophers or men of speculation to integrate ideas from the most distant and dissimilar objects, which could generate extraordinary profits (Smith 1937).

#### 2.4.5.3.3 Ecosystems

An ecosystem includes a collection of firms and beneficiaries within an environment that provide both idiosyncratic and common offerings that emerge from several firm specific “core competencies” for downstream integration with the ultimate benefit of the consumer and a more indirect enhanced competitive advantage for the ecosystem. These actors are aligned through value propositions, i.e. both formal and informal or relational agreements with incentives which parallel interests, that seek to co-produce high value service offerings through cost efficiencies, quality and time enhancements, innovations, and velocity increases in distribution channels (Lusch 2011; Noordewier et al. 1990; Lusch et al. 2010). These results also occur through effective communication strategies, shared processes, risk-pooling, capacity sharing, inventory leveling, etc. A positive side-effect of these relational exchanges can be enhanced Leyden value for the beneficiary and the network but also a reduction in a firm’s risk of opportunism associated with close collaboration and increased certainty through strong formal or informal relationships (Dwyer et al. 1987). In addition, these ecosystems serve as an abundant source from which to share and grow ideas, solutions, and unique opportunities to innovate. Intuitively, rich ecosystems can provide the firm a fertile source for future developments and opportunities that other competitors do not have equivalent access to (Jiang et al. 2010). What could emerge

through firm-to-firm alignment within an ecosystem is something greater than the capability of any singular entity. Artifacts of that greater something could include enhanced inventory procedures, streamlined transportation opportunities, enhanced demand management, quality improvements, efficient production runs, synchronized objectives and measures, etc. Each of these efficiencies and enhancements could ultimately sum to a higher value service offering for the benefit of the customer. This phenomenon is tantamount to systems thinking where an ecosystem of aligned autonomous entities can be the equivalent to a system of systems such that each belonging entity enhances its competitive market position through increased access to diverse capabilities that can be combined to propagate new capabilities (Boardman & Sauser 2006; Jones et al. 1997; Min et al. 2007). Thus, the sustained performance of a firm is likely proportional to the strength and capabilities of its ecosystem (Flynn et al. 2010).

#### 2.4.5.3.4 Service Exchange

Service exchange is where resources are activated. More clearly, it is how actors help other actors in either a direct or indirect fashion (Vargo & Lusch 2011a). For instance, a consumer can benefit by purchasing a service offering. Conversely a service provider benefits by exchanging the service for money. Each actor helps the other and value creation occurs. If for some reason, the consumer does not fully benefit from the exchange, value for that entity may not whole fully emerge. However, the service provider may retain the money from which to pay employees or reinvest in its core competency. From this perspective short term value has emerged, though only fully for one actor, i.e. the service provider. With intense competition and consumer word of mouth, service providers have the necessary motivation to co-create the most value with its beneficiaries. Thus, short term value creation is not the goal; rather continuous service streams where value emerges over an extensive time span (Chandler & Vargo 2011).

#### 2.4.5.3.5 Institutions and Institutional Arrangements

Institutions are the laws, social norms, symbols, and basic rules of the road from which ecosystems abide to generate value. They are shaped by the actors to reduce cognition and enhance decision making. The less an actor must think with their limited rationality, the more value they can ultimately co-create. Institutions both constrain and enable actors. Equally important, institutions facilitate coordination and cooperation within ecosystems. They also seek to resolve and reduce conflict between actors. Institutions are synthetic resources developed by economic and social actors that guide and constrain value creation activities (Vargo & Lusch 2016).

#### 2.4.6 Research Question 2 Summary and Conclusion

In summary, the purpose of this section was to uncover the dimensions of value from the associate literature and fuse them together from a panoramic view. The goal of this effort, in conjunction with sections 2.2. and 2.3, was to provide clarity to the topic of value by developing and presenting a solid comprehensive conceptual foundation from which to stimulate intelligent debate and analysis. The culmination of this effort was a holistic presentation of value into five dimensions, i.e. nature, perspectives, measures, storage and its creation. This led to further explication of value creation with the development of a S-D Logic value creation conceptual framework that outlines its key processes and elements along a continuum of activity. This artifact provided a large portion of the motivation to further examine several of the value creation key processes, i.e. co-production and exchange value.

#### 2.5 Research Question 3

By employing the value creation continuum framework highlighted in Figure 11, this research next empirically examines the value co-production process. This section seeks to

address the research question: 3) how effectively does the Lusch et al. (2007b) framework in conjunction with the transaction cost construct explain co-production within a healthcare delivery context? Several studies from the literature were pivotal to the emergence of this research question.

### 2.5.1 Literature Review














The decision to make or buy is one faced not only by firms but also individuals, families, groups, etc. Internal exchange is an activity that occurs when organizational units seek to fulfill needs from within. For instance, a group of neighbors that help fix a problem for a local household such as replacing brake pads on a neighbor's car. Lusch et al. (1992) advocated that understanding the reasons for internal exchange could help enrich the marketing discipline and potentially support future theory development. In response, Lusch et al. (1992) conceptually developed and posited an array of constructs that determine why organizational units, i.e. firms, households, or people would conduct a task organically or outsource its production to external actors. Moreover, Lusch et al. (1992) framed each construct into its own respective proposition for future empirical testing, which unfortunately never occurred. The researcher's argued the factors that contributed to the decision to exchange internally or externally were: expertise capacity, time capacity, control, economic rewards, psychic rewards, trust, and resource capacity. Expertise capacity reflected the level of skill or knowledge that an organizational unit possessed; thus, the more expertise one had to draw from to fulfill a need resulted in a greater propensity to exchange internally or do it yourself. Resource capacity, such as access to people, space, money, materials, etc., represented the magnitude of available resources to satisfy the need and that it shared a positive relationship with the decision to exchange internally. Trust represented the level of confidence an organizational unit may have in an external provider to fulfill or

adequately satisfy the need; thus, it shared a negative relationship with internal exchange. Economic rewards represented the financial or economic benefits associated with the exchange outcome. Psychic rewards capture qualities such as consumer enjoyment or gratification in performing or fulfilling the need. Control reflects the will of the organizational unit to engage the appropriate amount of direction to satisfy the need. Time capacity represented the scarcity of an organizational unit's availability or possession of excess time. Each of these constructs, i.e. economic rewards, psychic rewards, control, and time capacity, was posited to share a positive relationship with the decision to exchange internally. At the instance in time of its publication, this line of thinking challenged traditional TCE reasoning for why firms choose to avoid the market, i.e. avoid excessive costs. Moreover, it sought to look from a much broader framework to understand internal versus external exchange (Lusch et al. 1992).














Based upon the contributions from Lusch et al. (1992), Lusch et al. (2007b) further refined those initial eight key constructs that the authors advocated led to internal exchange into six constructs. Lusch et al. (2007b) then posited this framework which contained the following constructs: expertise, control, economic benefits, psychic benefits, risk taking, and physical capital as important determinants towards a consumer's propensity to participate in co-production activities. Each of these constructs will be more clearly defined in section 2.5.1.

Table 11

*Hypothesized Co-Production Antecedents*

Author	Title	Method	Context	Co-Pro antecedents	Definition	Theory
Auh et al. 2007	Co-production and customer loyalty in financial services	Survey, SEM	Financial services and healthcare delivery	Client-advisor communication (significant in 2 contexts) 	The sharing of meaningful and timely information between a client and advisor in an empathetic manner	Social Exchange Theory
				Client expertise (significant in 2 contexts) 	A customers accrued knowledge about how a product should perform and general understanding of the average performance of similar brands in a product category	
				Client affective commitment (mixed sig)  	The customer's attachment to, identification with, and involvement in the organization.	
				Client-perceived interactional justice (mixed sig)  	Fairness judgments based on the quality of the interpersonal treatment a customer receives during a service encounter.	
Wu 2011	A re-examination of the antecedents and impact of customer participation in service	Survey, SEM	Taiwan theme park service	Perceived support for customer (significant) 	Customers will be willing to actively participate in the development and governance of a firm to the extent that they believe that their input and contributions matter and are valued by the firm	None
				Customer socialization (significant) 	Generally viewed as a process pertaining to the development of customer skills, knowledge, and attitudes relevant to the marketplace	
Kim et al. 2013	Factors influencing customer acceptance of kiosks at quick service restaurants	Survey, SEM	Food services	Previous experience (non significant) 	Consumers who have experience with technology are more likely to try new technologies or use similar technologies	None
				Role clarity (significant) 	Refers to customers' knowledge and understanding of what they need to do	
				Ability (non significant) 	Customers having required skills and confidence to perform a certain assignment	
				Extrinsic motivation (significant) 	Formed by external factors such as tangible rewards, e.g. price discounts, time savings, and promotions.	
				Intrinsic motivation (non significant) 	Arises from individual rewards, e.g. accomplishment, pleasure, prestige, personal growth and empowerment.	

*(table continues)*

Author	Title	Method	Context	Co-Pro antecedents	Definition	Theory
Engström & Elg 2015	A self-determination theory perspective on customer participation in service development	Interview & diaries	Healthcare delivery	Non participatory (not tested)	The choice and action not to participate or to be inactive in the initiative	Self-Determination Theory
				Restitution (not tested)	Those who engaged in the service development initiative to find restitution from a service failure	
				Social (not tested)	An opportunity to gain information and the social support of care providers and other patients	
				Volunteerism (not tested)	Integrating the activity into their own conscious value system	
				Contributing (not tested)	Based on a congruence of values combined with a high sense of competency	
				Playful (not tested)	Interest in the task itself rather than some external goal	
Chen et al. 2011	Co-production and its effects on service innovation	Survey, PLS	B2B Top 5000 largest corporations in Taiwan	Partner match (significant) 	The degree to which a chosen partner resembles a business' management style and enterprise culture	Partner Selection Theory
				Partner expertise (significant) 	The combination of knowledge and the capability partners acquire and assimilate to enhance their managerial and technical capabilities to help their partners succeed	
				Affective commitment (significant) 	A positive emotional attachment represents the degree to which favorable partners are psychologically bonded.	
Wu et al. 2015	Managing innovation through co-production in interfirm partnering	Survey, SEM	B2B Top 5000 largest corporations in Taiwan	Social interactions (significant) 	Regularly occurring contacts between groups of partners	None
				Trust (significant) 	Integrity, honesty, and confidence that one party perceives in the other	
				Shared values (significant) 	A shared code or paradigm that facilitates a common understanding of the collective objectives and the proper behavior within a social system	
Chen et al. 2015	Antecedents of mandatory customer participation in service encounters: An empirical study	Survey, SEM	Restaurant services	Role clarity (significant) 	Concerns whether the customer understands what he or she is expected to do in service delivery and how to do it	Role Theory
				Self-efficacy (partial support)  	Perceived or actual competence to perform a task	
				Purchase importance (partial support)  	The amount-at-stake element of perceived risk	
				Servicescape (partial support)  	The environment in which the service is assembled and the seller and customer interact, combined with tangible commodities that facilitate performance or communication of the service	

(table continues)









Author	Title	Method	Context	Co-Pro antecedents	Definition	Theory
Hsu et al. 2013	Antecedents and consequences of user co-production in information system development projects	Survey, PLS	Taiwanese information systems projects	Relational social capital (significant) 	The quality of personal relationships such as trust and trustworthiness, norms and sanctions, obligations and expectations	Social Capital Theory
				Structural social capital (significant) 	The frequency of interaction between users and developers	
				Cognitive social capital (significant) 	The shared understanding between user representatives and developers	
Choi et al. 2014	The impact of social exchange-based antecedents on customer organizational citizenship behaviors (COCBs) in service recovery	Survey SEM	Retail service recovery	Affective commitment (significant) 	An affective or emotional attachment to the organization such that the strongly committed individual identifies with, is involved in, and enjoys membership in the organization is closely associated with perceptions of positive affective states, which facilitate proactive behaviors such as cooperation and problem solving.	Social Exchange Theory









Table 12

*Co-Production Hypothesized as an Antecedent*

Author	Title	Method	Context	Co-Pro as antecedent	Definition
Auh et al. 2007	Co-production and customer loyalty in financial services	Survey, SEM	Financial services and healthcare delivery	Attitudinal loyalty (significant in 2 contexts) 	A measure of clients' intentions to stay with and level of commitment to the organization
				Behavioral loyalty (non-significant) 	An objective measure of the amount of brokerage the client paid to the firm in the year following the administration of the questionnaire
Wu 2011	A re-examination of the antecedents and impact of customer participation in service	Survey, SEM	Taiwan theme park service	Customer satisfaction (non-significant) 	An overall post-purchase evaluation
Chen et al. 2011	Co-production and its effects on service innovation	Survey, PLS	B2B Top 5000 largest corporations in Taiwan	Service innovation (significant) 	A customer-oriented term that captures both the development of new service offerings and the processes or methods employed to develop and market new services to customers

*(table continues)*



Author	Title	Method	Context	Co-Pro as antecedent	Definition
Wu et al. 2015	Managing innovation through co-production in interfirm partnering	Survey, SEM	B2B Top 5000 largest corporations in Taiwan	Absorptive capacity (significant) 	The ability to recognize the value of new information, assimilating and applying that information to commercial ends
				Self-efficacy (significant) 	A firm's belief in the capability to perform a specific task
				Innovation (significant) 	The adoption of an internally generated or purchased device, system, policy, program, process, product, or service that is new to the adopting organization
Chen et al. 2015	Antecedents of mandatory customer participation in service encounters: An empirical study	Survey, SEM	Restaurant services	Customer loyalty (significant) 	The level of loyalty a customer portrays towards their favorite restaurant
Hsu et al. 2013	Antecedents and consequences of user co-production in information system development projects	Survey, PLS	Taiwanese information systems projects	system quality (significant) 	The reliability, adaptability, and ease of use of the end users
				User satisfaction (significant) 	The perceptions of end users about the completed information system
				Project performance (significant) 	The measurement of system development work adhered to the predefined budget and schedule
Choi et al. 2014	The impact of social exchange-based antecedents on customer organizational citizenship behaviors (COCBs) in service recovery	Survey SEM	Retail service recovery	Service recovery (significant) 	The actions provided by an organization as a response to a service failure, because customers can actively suggest ways in which to recover the service failure and apply their skills or knowledge to resolve the problem

Several recent studies have sought to clarify the antecedents to value co-production. The results from these studies and associate antecedents and corresponding definitions to co-production can be reviewed in Table 11 and Table 12. From reviewing Table 11, several constructs seem to conceptually align with those from Lusch et al. (2007b). More specifically, constructs such as ability, client and partner expertise and self-efficacy closely align, from a definition compatibility stand-point, with Lusch et al. (2007b) expertise construct. Other constructs such as intrinsic motivation and client affective commitment also closely align with Lusch et al. (2007b) psychic benefit construct. Furthermore, extrinsic motivation is similar with Lusch et al. (2007b) economic benefits. Finally, purchase importance seems to agree with Lusch et al. (2007b) risk taking construct. It is also apparent that empirical tests have often uncovered mixed results and several non-significant findings; a thumb up icon indicates statistical significance reported in that respective study. What Table 11 also highlights are that no scholar has empirically tested the entire Lusch et al. (2007b) framework from a purist standpoint or disparately with similar constructs; a task this research seeks to fulfill. This research will attempt to exhibit the importance of economizing on transaction costs, i.e. time and effort, to co-production efforts and outcomes which reveals value creation as a mix of both costs and benefits. Table 12 highlights those scholarly publications that advance co-production as an antecedent to another dependent variable.

Table 12 highlights that co-production is commonly used as an antecedent for constructs such as loyalty, innovation, and satisfaction. This research will also reinforce the importance of co-production as a source of competitive advantage for service providers, through the testing of both satisfaction and repurchase intentions within its hypothesized model presented in the next section. Overall, this research seeks to provide one of the most holistic attempts at measuring

both the antecedents to and impacts resulting from value co-production by employing the Lusch et al. (2007b) framework along with the transaction cost, satisfaction and repurchase intention constructs.

### 2.5.2 Hypothesized Model

This research's hypothesized model incorporated the six factors (expertise, control, physical capital, risk taking, psychic benefits, and economic benefits) posited by Lusch et al. (2007b) to explain a customer's participation in the co-production of a service. In addition, it also incorporated transaction cost as a construct to provide a broader understanding to the phenomenon of interest. In addition, we wanted to illustrate that those who participate in shaping the service offering may also have increased satisfaction as an outcome. Finally, we highlight that these increased levels of satisfaction may also act as a determinant to a customer's intention to return to their provider for future service. Thus, enhanced co-production efforts could provide a source of competitive advantage for a service provider (Auh et al. 2007). The following definitions and hypotheses are presented to provide a clearer understanding of the posited relationships in our model.

#### 2.5.2.1 Role of Co-Production, Consumer Satisfaction and Repurchase Intent

Lusch et al. (2007b) described co-production of the service offering as customer involvement in the development of the service. To further clarify, Lusch et al. (2007b) provided an example of a customer shopping at a grocery store where he or she can wander unassisted, self-checkout without any help, and bag all the groceries unaided. Within the context of health care, we define value co-production as the level of input the patient provides that is implemented within or influences the medical doctor's decision process. The doctor's final decision could include the type of medicine prescribed, surgical or specialist care required, patient recovery

plans, etc. Within the medical literature, this interaction is referred to as shared decision making where the doctor and patient share information and a mutually agreed treatment decision is made (Wirtz et al. 2006). A critical component to this exchange is the patient-doctor communication process, which involves discussion about potential illness, treatments, uncertainty management, etc. Ultimately, an effective communication process has been reported to increase patient care ownership, satisfaction, and enhance health outcomes (Garg et al. 2016; Durand et al. 2015). These results signify the importance and the impactful cascading effects of co-production efforts in the patient-doctor dyad. As such, we also incorporated measures of customer satisfaction and future repurchase intent to analyze co-production from a holistic perspective. We define customer satisfaction within the context of healthcare as a post-interaction patient judgment (Sweeney & Soutar 2001). We define consumer repurchase intentions as the probability of repurchase from the same service provider (Anderson & Sullivan 1993). Anderson and Sullivan (1993) hypothesized, empirically tested and confirmed the positive relationship between satisfaction and repurchase intentions. Anderson and Sullivan (1993) justification for such a hypothesis was that consumers are looking to buy brands that maximize total satisfaction. Similarly, we expect this reasoning to apply to healthcare providers since patients visit medical doctors to maximize personal care, which stem from strong patient-doctor relationships and translates into satisfaction (Cleary & McNeil 1988). By taking these consumer measures of satisfaction and repurchase intentions into account in conjunction with the preceding justification, we hypothesize.

H<sub>1a</sub>: Value co-production in healthcare positively influences a patient's satisfaction with the medical provider.

H<sub>1b</sub>: Satisfaction positively influences patient repurchase intention with the medical provider.

### 2.5.2.2 Role of Expertise

Lusch et al. (2007b) posited that an individual is more likely to co-produce in a service offering if he or she possesses the requisite expertise or operant resources. For instance, those customers that are skilled at home repair are more likely to purchase products associated with do-it-yourself home improvement projects and subsequently shape the service offering or co-produce value. This study adopts Lusch et al. (2007b) definition of expertise as having the requisite knowledge and skills required to effectively participate in shaping the service offering. Within health care, this would be like a patient having technical knowledge about a specific medical condition or an assortment of conditions and potential treatments. Thus, this type of patient would be more likely to co-produce value in a service offering. The notion of multiple parties providing input into value creation could be perceived as subtle. The traditional approach may be viewed as a passive participant, i.e. the patient, cooperating with an active expert, i.e. the medical doctor. However, value creation is the outcome of the merging of ideas from multiple perspectives originating from the expertise of both parties (Lee et al. 2012b). Therefore,

H<sub>2</sub>: Expertise positively influences a patient's propensity to co-produce value with a medical provider.

### 2.5.2.3 Role of Control

Lusch et al. (2007b) posited that a customer shaping the service offering is more common when he or she wants to control either the service outcome or the process. For instance, parents may decide to home school children because they want more control over the educational process. This study adopts Lusch et al. (2007b) definition of control as a consumer who wants to either have control of the outcome, the service or the process. Within health care, this would be like a patient that may exert effort to control his or her health outcomes. For example, a patient who exercises high control is one that wants to, in the interest of their own self-benefit,

constructively shape the development of a post operation recovery plan with a healthcare provider. The use of control mechanisms, i.e. incentive compatibility constraints, to manage relational outcomes is a relatively important aspect to human behavioral areas of research such as contract and game theory (Myerson 1985). The appropriate implementation and balance of control and oversight mechanisms can enhance outcomes and marginalize the risk for opportunistic behavior that manifests from information asymmetry and competing or misaligned objectives between two parties (Fahrioglu & Alvarado 2000; Gintis 2009). Given that humans are self-interested, a key assumption in game theory where some are self-seeking with guile, would make it in the best interest of the paying party, i.e. principal or patient, to exert some amount of control to maximize utility or enhance total value generation (Eisenhardt 1989; Hill & Jones 1992). Therefore,

H<sub>3</sub>: Control positively influences a patient's propensity to co-produce value with a medical provider.

#### 2.5.2.4 Role of Physical Capital

Lusch et al. (2007b) posited that a consumer is more likely to co-produce value in a service offering if he or she has access to the physical capital. For instance, a customer must have tools and space to conduct auto or home repairs. This study adopts Lusch et al. (2007b) definition of physical capital as a consumer who has the tangible means necessary to co-produce value. Within a health care delivery context, this is analogous to a patient possessing access to friends, associates, and relatives that have a richer understanding of the human body and its properties, for the purposes of enhancing his or her medical knowledge prior to, during, or after a service exchange. Similarly, firms with access to talented human resources can obtain and maintain a long-term competitive advantage (Morgan & Hunt 1994). Thus, this type of patient with access

to the physical capital would be more likely to co-produce value during a service interaction.

Therefore,

H4: Physical capital positively influences a patient's propensity to co-produce value with a medical provider.

#### 2.5.2.5 Role of Risk Taking

Lusch et al. (2007b) posited that co-production in a service offering requires physical, social, and psychological risks on the consumer's behalf. For instance, a consumer assumes certain levels of physical risks by assembling an IKEA furniture set, which subsequently shapes the service offering. In this example the risk may be small, but not negligible. This study uses Lusch et al. (2007b) definition of risk taking as social, and/or psychological risk taking. Within the health care domain, this is congruent with a patient who perceives interacting with their doctor as a risky encounter, since the doctor is nearly always the party who possesses most of the medical knowledge. However, the type of patient who is willing to take these sorts of social risks to challenge the power imbalance and provide their input into the decision-making process would be more likely to co-produce value during a service interaction. Therefore,

H5: Risk taking positively influences a patient's propensity to co-produce value with a medical provider.

#### 2.5.2.6 Role of Psychic Benefits

Lusch et al. (2007b) posited that co-production in a service offering often occurs due to the experiential benefits one receives in the interaction. For instance, a patient may gain a level of psychic benefit by asking questions and interacting with his or her doctor. This study adopts Lusch et al. (2007b) definition of psychic benefits as enjoyment or experiential benefits through personal interaction with a healthcare provider. The patient who enjoys the interaction experience with his or her provider feels free to fully interact with the doctor, which could include discussing the quality of decisions or gaining a clearer level of understanding with a plan

of action or a condition. Consequently, patients that enjoy the experience of the dyadic interaction will be more likely to co-produce value during a service interaction. This rationale aligns with the findings presented by Engström and Elg (2015) where patients professed to co-produce with their medical doctor because they enjoyed the experience. Therefore,

H<sub>6</sub>: Psychic benefits positively influences a patient's propensity to co-produce value with a medical provider.

#### 2.5.2.7 Role of Economic Benefits

Lusch et al. (2007b) posited that an individual who perceives an economic benefit is more likely to co-produce value during a service interaction. For example, customers who use self-service checkouts at a grocery store do so because he or she realizes an economic benefit by conducting this type of activity. It could equate to a return on personal time or some other measure as determined by the consumer. Perhaps a customer is experiencing a bad day and would rather avoid interaction with a cashier. Self-service checkouts could offer an escape from direct interaction with store personnel. This study adopts Lusch et al. (2007b) definition of economic benefits as a perceived positive return on investment, e.g. time or value. For example, a patient that sees value in investing the time required to fully discuss a symptom or to constructively interact with a doctor to uncover a root cause will be more likely to co-produce value during a service interaction. Therefore,

H<sub>7</sub>: Economic benefits positively influence a patient's propensity to co-produce value with a medical provider.

#### 2.5.2.8 Role of Transaction Cost

While TCE is a theory used to explain a firm's decision to make or buy, it is also a human behavioral theory since firms are comprised of human decision makers and the theory incorporates elements such as human bounded rationality and opportunism (Williamson 1981).



This study repurposed the transaction cost construct from the TCE theory to test our hypothesized link to value co-production.

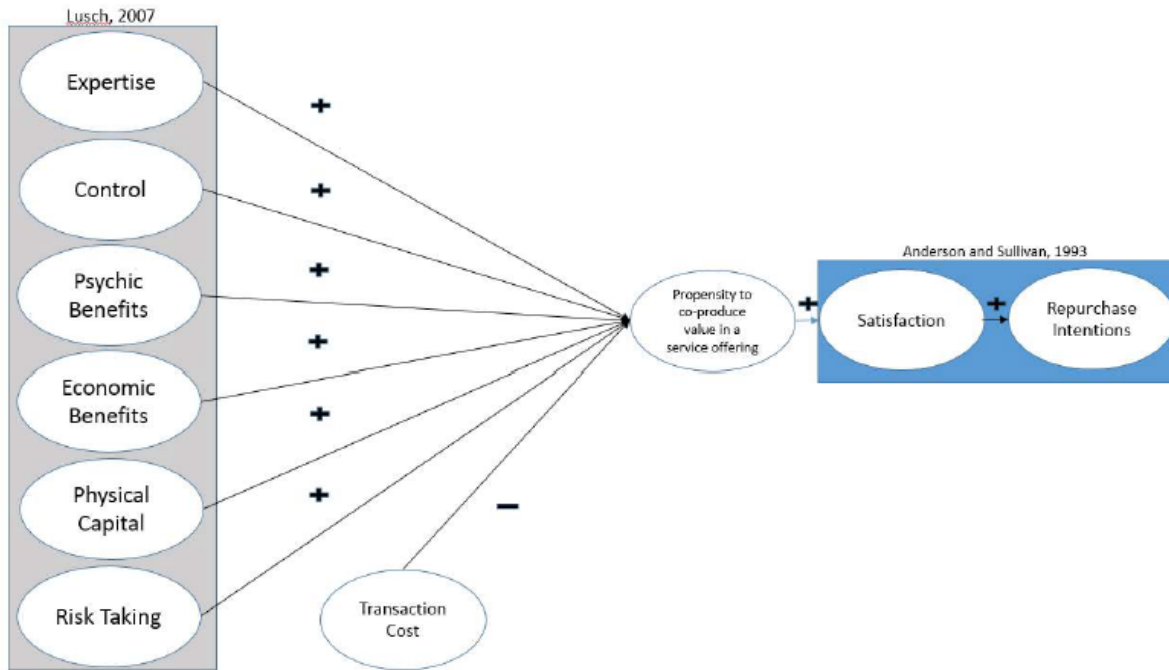


Figure 13. Hypothesized model.

For the purposes of this study, we define transaction cost as the time and effort required from a patient’s perspective to effectively interact with a medical service provider to shape the service offering. Thus, the less receptive a medical service provider would be towards the patient or perceived by the patient, the greater the transaction cost incurred as more effort and time would be required from the patient to interject his or her input into the development of the service offering. Previous studies in the literature, have examined similar proposed relationships. Dyer (1997) executed exploratory interviews with employees in the Japanese and United States automobile industry, i.e. suppliers and automakers, and proposed an interfirm collaboration model that portrayed transaction costs as negatively influencing transaction value or joint performance in a relationship. Thus, the lower the transaction costs between actors, the greater transaction value that can emerge. Sriram et al. (1992) conducted an empirical study

with 65 purchasing managers and found that perceived transaction costs are positively related to the propensity to collaborate. Pilling et al. (1994) executed a study involving 229 purchasing employees in the defense industry and found that transaction costs mediate the relationship between certain TCA dimensions and relational closeness. Based upon our rationale and these findings, we posit that transaction costs can be employed within our hypothesized model.

Therefore,

H<sub>8</sub>: Transaction costs negatively influence a patient's propensity to co-produce value with a medical provider.

The complete model articulated in the preceding paragraphs is presented in Figure 13.

### 2.5.3 Theory

This research applied several important theories from which to ground our hypothetical model. SDT, a human motivational theory, was chosen not only for its appropriateness and fit but also due to the previous scholarly work conducted by Engström and Elg (2015). These scholars used SDT to explain patient motivation in shaping a doctor to patient service offering. However, Engström and Elg (2015) was a qualitative study that leveraged interviews and patient diaries to investigate patient motivations. The authors explained that more creative and productive participation between the doctor and patient can stem from a self-determined patient (Engström & Elg 2015). Accordingly, this study applies SDT to explain the relationships in Lusch et al. (2007b) co-production framework that we empirically test. Simply put, SDT explains why humans do or do not conduct action.

Figure 14 was introduced by Ryan and Deci (2000a) to explicate a continuum of human motivation in accordance with SDT. SDT is a combination of several sub theories known as cognitive evaluation theory (CET), which explains intrinsic motivation, and organismic integration theory (OIT), which explains extrinsic motivation (Ryan & Deci 2000a). To explicate

the motivational continuum presented in Figure 14, we provide a simple example, i.e. the task of mowing the yard. In accordance with SDT, if one does not enjoy mowing the yard but mows it anyway, they do so in accordance with some external motivation. Thus, they begin at the external regulation stage outlined in Figure 14. In this phase, one mows the yard to avoid monetary fines or warnings from the neighborhood associations.

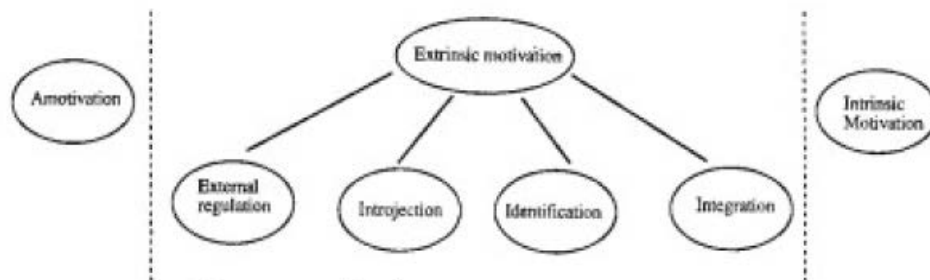


Figure 14. A taxonomy of human motivation.

This phase is closely aligned with behavior that seeks to avoid conflict or in this case conflict with neighbors. However, over time the individual may advance to the next phase, i.e. introjection, where he or she mows the yard to receive approval from the neighbors. Here one is seeking to avoid guilt, or it is an attempt to feel worthy through the eyes of one's neighbors. If one moves to the next phase, i.e. identification, he or she mows the yard because it is an internal value, or they believe it is an activity that makes one a good neighbor. Advancing to the final stage of extrinsic motivation, i.e. integrated, means one mows the yard because they fully accept the importance of the activity. In accordance with the theory, one can transition from extrinsic motivation to intrinsic, i.e. one enjoys mowing the yard. This is best accomplished when one feels they have autonomy in the task, feel a sense of belonging, i.e. relatedness, and they are competent, i.e. they have the ability and skills needed to fully conduct the task. However, on the opposing end of the spectrum, one may not mow the yard due to a total lack of motivation. In this instance, they simply do not care and see no enjoyment in the task or feel no urgency to do

so as a result of the external punishments (Deci & Ryan 2008; Ryan & Deci 2000b). Overall, SDT is a powerful theory that explains why humans do or do not conduct actions (Gagné & Deci 2005). Consequently, we use it to explain nearly all, except for transaction cost, the hypothesized relationships within our model.

Dong et al. (2007) explained that value co-creation benefits both the customer, i.e. lower prices and greater effectiveness, and the firm, i.e. increased efficiencies and greater service value. This and other scholarly studies reinforced TCE's application power within S-D Logic (Lusch et al. 2008; Paulin & Ferguson 2010; Prior 2016). TCE is a theory that is often associated with a firm's decision to make or buy based upon several conditions, i.e. asset specificity, risk of opportunism, bounded rationality, transaction frequency, and transaction cost (Krafft et al. 2004; Williamson 2008). TCE incorporates the transaction cost construct to represent costs associated with searching, contractual development, contractual ex ante and ex post actions, retribution, monitoring, acquiring resources to convert inputs to outputs, etc. (Rindfleisch & Heide 1997). In addition, we also consider the costs associated with the value creation process, i.e. resource integrating as a critical piece of the overall transaction cost concept (Jiang et al. 2010). Thus, it is self-evident that economizing on transactions for business-to-business (B2B), business-to-consumer (B2C), and consumer-to-consumer (C2C) activities will likely enhance total value creation opportunities since it naturally improves resource integration efforts. For instance, one important reason for supply chain formation is the implicit purpose of inter-organizational transaction cost economization (Humphreys et al. 2001). More clearly, the introduction of standardized process and procedures and enhanced long-term relationships between firms and consumers who produce a service should translate into an economized transaction cost that contributes to a decrease in uncertainty and an increase in

profits and consumer value creation opportunities. The more plainly a business understands relational aspects such as its ecosystem partners and inter-firm processes, the greater potential for cost saving opportunities and enhanced value creation outcomes. Conversely, customer's that can contribute to the development of the service offering will likely reap greater value-in-use experiences when that offering is customized to meet the long-term needs of that consumer. Similarly, co-production within the health care context offers another opportunity for supply chain partners, i.e. medical providers and patients, to economize transaction costs to enhance the service offering by custom tailoring the service to fulfill the needs of that patient.

#### 2.6 Research Question 4

By employing the value creation continuum framework presented in Figure 11, this research next empirically examines value enhancements that can improve exchange. The exchange value process is where actors interact through markets and value can emerge through economic transactions. Both actors, i.e. the consumer and service provider, benefit from the exchange; otherwise it would not occur. Consequently, exchange enables the firm to take consumer money and use it for a variety of purposes, i.e. pay employees, reinvest in core competences, pay fixed costs, etc. On the other hand, the consumer transfers money to the firm because he or she is or anticipates being better off from the transaction. This study advocates that value can fail to emerge due to misaligned preferences between retailers and consumers (Abreu et al. 2009). In other words, retailers do not always meet consumer preferences through perceived benefits or costs; thus, the transaction does not occur, and value fails to emerge.

In an increasingly competitive environment, retailers and service providers leverage sales promotions to gain an advantage (Smith & Sinha 2000). In 2012, local businesses spent 81 percent more on sales promotions when compared to 2007 accounting for \$169 billion (Garibian

2013). Corsi et al. (2013) reported that price discounts are the most common sales promotion in the retail sector and are effective at enhancing sales and increasing brand performance in the short-term. The marketing literature is replete with studies that examine the impacts of price-oriented promotions like price reductions, coupons, rebates and so forth (Ataman et al. 2010; Currie & Mizerski 2016; Nijs et al. 2001; Pauwels et al. 2002; Dekimpe et al. 1998; Mela et al. 1998; Neslin & Shoemaker 1983; Krishna & Zhang 1999). More recently, scholarly interest has grown for studies that examine the influence of benefit-oriented promotions on consumer perceptions (Eckel & Grossman 2008; Yi & Yoo 2011; Arora & Henderson 2007; Büttner et al. 2015; Corsi et al. 2013; Mendez et al. 2015). Such benefits could include: contests, free food, buy one get one free, retailer donations to social causes, local or organic produce, and other value-added features not to include price reductions. While this investigation seeks to explicitly uncover and test the influence of singular benefits across several service offerings in study 2, it primarily aims to address the following research question in study 1: 4) what influence do a menu of benefits and equivalent price reductions have on consumer purchase intent? Several studies from the literature were pivotal to the emergence of this research question.

### 2.6.1 Literature Review

Arora and Henderson (2007) through a series of experiments revealed that at low denominations for the purchase of known and unknown brands of water, store donations to a specific social cause proved more effective at increasing purchase intention than equivalent price reductions. However, the scholars noted that consumers become less charitable as the payback increased. Thus, consumers became greedier as payback exceeded a 15-cent threshold. Additionally, those consumers that chose social cause donations did so due to a personal affinity towards the charitable cause. However, the authors limited their examination to two service

offerings and social cause donations to entice purchase intent, i.e. bottled water purchases and credit card cash-back programs. We chose to expand on this work and test the effects of a menu of benefits that also incorporate social causes to test its influence on consumer purchase intent across several varying service offerings versus an equivalent price reduction, i.e. meal, vacation, jacket, and a vehicle purchase. Just as Arora and Henderson (2007) suggest, we adopt a customization strategy through a menu of benefits that allows the customer to choose a single benefit that suits their personal needs to enhance purchase intent.

For this study, we defined a benefit as any enhancement to the service offering that positively impacts the consumer or some other social entity, i.e. a charity or charitable beneficiaries. Alternatively, a price reduction or price promotion is not viewed as a benefit; rather an aspect attributed to cost. More clearly, a price reduction is viewed as a value enhancement achieved through a reduction in consumer cost. A menu of benefits is a collection of benefits offered to the consumer from which he or she may select a single benefit to entice purchase intent. This is the customization strategy presented by Arora and Henderson (2007) to minimize misalignment of consumer preferences. Recently, Amazon extracted a half percent donation of the purchase price to the consumer's charity of choice from a selection of nearly one million charities to pick from (Barr 2013). Other electronic commerce retailers such as eBay, enable the seller to pick his or her charity of choice from a menu of charities and the charitable donation percentage for each item listing is advertised to bidders to enhance auctions prices (Pavlovskaya 2015). Consequently, a menu of charitable benefits appears to be a relatively novel method utilized by some retailers and auctioneers to enhance sales.

Within consumer markets, there are several popular benefits or value-added techniques leveraged by retailers and service providers to entice purchase intent across several contexts.

The restaurant industry provides free food, i.e. complimentary bread or chips and salsa. It also uses other methods such as entertainment, i.e. musicians, televisions and magicians (Admin 2011). Car dealerships leverage value-added program benefits that span free oil changes, lifetime state inspections, free tire changes, free internet service and play area in the customer lounge to enhance car sales (Snyder 2010; Autotrader.com 2011). The tourism and hotel industry offers value added meal bonus packages, free Wi-Fi, free parking, and room upgrades to entice sales (Fiji 2018; Staff 2016). Clothing retailers rely heavily on price promotions but also focus on enhanced customer service, contests, and easy returns or superior after sales support (Miksen 2018; Staff 2012). While these value-added promotions are not all inclusive, this study employed each of these contexts and many of these and other notional benefits bundled into a menu of benefits to entice consumer purchase intent. We also asked respondents to self-report which benefits they chose and prefer to help architect subsequent experiments. Thus, when singular benefits are offered to entice consumer purchase intention in study 2, we engage them based upon ranked respondent feedback from study 1.

Several studies have examined the impact of benefit-oriented or nonmonetary promotions on brand attitude and brand image. Yi and Yoo (2011) examined the long-term influence of monetary promotions and benefit-oriented (free gift) promotions in the context of MP3 player shopping on consumer brand attitude and reference price. These scholars found that repeat monetary promotions lower brand attitude due to a degraded consumer internal reference price. However, brand attitude was not negatively impacted with repeat benefit-oriented promotions, i.e. free gifts. Similarly, Crespo-Almendros and Del Barrio-García (2016) examined the influence of internet based sales promotions on brand image in the context of airline seat purchases. The authors reported that benefit-oriented promotions (free gifts), i.e. 2 free nights



hotel stay with airline ticket purchase, were effective at creating a positive brand image; whereas price promotions, i.e. 120 Euro discount, by comparison degraded brand image.

Volume (benefit) promotions have also shown significant influence on consumer perceptions. Smith and Sinha (2000) explained that both price promotions and buy one get one free promotions significantly influenced consumer supermarket preference. In addition, the researchers noted that consumers preferred buy one get one free promotions for low priced categories, but price promotions for high priced categories. However, the authors cautioned that promotions should be tailored to the product category. To instantiate this, the authors reported that Pizza Hut switched from price to volume promotions and experienced a 21 percent increase in sales as a result. Likewise, Hardesty and Bearden (2003) reported that promotional bonus packs, e.g. receive 33% more product, were equally effective as price discounts at low to moderate treatment levels. However, consumers preferred price reductions at high promotional levels.

Several other studies have examined benefit-oriented promotions and its influence on consumer buying behavior. For consumer goods, James et al. (2009) found that locally grown fruit, i.e. within 100 miles of where it is marketed, had the greatest influence on consumer product selection. Palazon and Delgado-Ballester (2009) tested the effect of premium promotions, i.e. a gift, and equivalent price reductions on buying intention in the context of consumer consumption of pizza (study1) and soft drink (study 2) purchases. The authors found that benefit related promotions were more effective in low denominations (study 1) while price reductions were more effective in high denominations for both studies. However, at medium denominations both promotional types were equally effective across both studies. Lowe and Barnes (2012) analyzed consumer behavior with new product types and various promotional

efforts. These scholars reported that introductory one-off price discounts can negatively impact consumer reference price with newly released product types. To overcome this challenge, the scholars explained that free product promotions have a smaller effect on consumer reference price perceptions, which could enable retailers to maintain long-term pricing power. However, the scholars reported that consumer purchase intent was moderated by product innovativeness. As such, extra free products reaped greater consumer purchase intent for low innovative products; whereas high innovative products received greater purchase intention with introductory low pricing. However, consumers perceive innovative products as a risky transaction which reduces consumer stockpile tendencies. Other scholars have noted the importance of purchase risk as it relates to promotions. Ostrom and Iacobucci (1995) conveyed that as purchase risk increases, i.e. those services where goodness is difficult to evaluate, consumers are more apt to seek benefits such as quality, friendly service providers and customized service attention over price reductions. Each of these studies, highlighted the importance of promotion oriented-benefits on consumer perception. Thus, when value is viewed through a prism of total benefits and total costs, practitioners can purposefully leverage a variety of techniques to enhance consumer purchase intention than price promotions alone, which are known to potentially have a negative impact on consumer price sensitivity and could erode consumer and retailer perceptions of brand equity (Chandon et al. 2000; Kalwani & Yim 1992; Mela et al. 1997). As presented, several studies have examined the influence of singular benefit promotions on consumer perceptions; however, no study has focused analysis toward the influence of a menu of benefits on consumer purchase intention. This is a gap this study seeks to fulfill.

### 2.6.2 Theory

RCT is a dominant economics paradigm that is also applied in other disciplines such as

sociology, political science, and anthropology. It espouses that economic units, i.e. individuals or firms, are self-interested entities that continuously calculate costs and benefits to maximize their utility or objectives given all relevant circumstances outside their sphere of control. Several key assumptions to the theory are 1) consumers have a known set of alternatives, e.g. product a, b, and c, 2) consumers have known preferences, 3) a consumers preferences are transitive; thus if a consumer prefers product b to product c and product a to b, then the consumer prefers product a to c, 4) consumers will choose the most preferred product or alternative, i.e. product a (Green & Fox 2007). Additionally, these economic entities are motivated primarily by a rewards maximization approach and the minimization of costs. The theory argues that all social phenomena can be attributed to individual actions. However, the theory is challenged by social aspects such as collective action, i.e. joining groups and associates when these self-interested entities could otherwise free-ride the benefits. For instance, a rational actor would not be predicted to join a union when he or she could attain union benefits without assuming any of the cost. However, unions overcome this challenge by seeking selective benefits for members, in which case joining a union becomes rational. It is more problematic for RCT when unions do not have closed benefits and yet it still attracts members. The theory fails in this regard. The theory also fails to explain why a rational individual would ever choose to act altruistically, unless he or she gained some level of personal satisfaction from the activity (Scott 2000). Like any theory, RCT faces many challenges and anomalies. However, we apply it due to its predictive power within the realm of economic exchange, which is the focus of this study. Moreover, we find it an appropriate fit over competing theories as a basis for our hypotheses, i.e. theory of consumer choice, since we also examine social cause donations to entice consumer purchase intent in this study.

## 2.6.3 Study Constructs

### 2.6.3.1 Role of a Menu of Benefits and Consumer Purchase Intent

To control for any potential confounding effects, i.e. branding, we chose to remove any product or service offering branding for this analysis. Thus, consumers are provided a visual of the product or service, but it has no association with either a known or generic brand to enhance generalizability of results. Purchase intent is a construct often used to measure an individual's purchase behavior. In consumer research, it is used in forecasting, market segmentation, and new product or service testing (Morwitz & Schmittlein 1992). Maxham III and Netemeyer (2002) defined purchase intent as, "the degree to which customers intend to purchase a firm's products/services in the future." We adopt this definition and leverage the construct within our experimental study as the dependent variable from which survey respondents will rate and group means will be contrasted against a series of several product and service offerings. We define a menu of benefits as a list of value-added alternatives, not to include price promotions that are designed to enhance consumer purchase intention. This research used a menu of benefits based upon the recommendations from Arora and Henderson (2007) as it relates to embedded premiums or social causes. Simply put, when benefits are offered in a plural manner there are less opportunities for a misalignment of consumer preferences. Similarly, study 2 evaluates the influence singular benefits have on consumer purchase intent. We define singular benefits as a lone benefit that is offered to entice consumer purchase. This method significantly reduces any confounding effect that is present when a menu of benefits is offered to entice purchase intent, *ceteris paribus*. We crafted these benefits in accordance with each scenario based upon what most consumers preferred or self-reported in Study 1. In other words, these singular benefits have an empirical basis for their offering in study 2. Consequently, since singular benefits are popular

within the market and we apply them based upon ranked consumer desires, we posit that they will closely align consumer-retailer preferences. Therefore,

H<sub>1a</sub>: A menu of benefits positively influence consumer purchase intent.

H<sub>1b</sub>: Consumer informed singular benefits positively influence consumer purchase intent.

#### 2.6.3.2 Role of Self-Benefit and Other-Benefit

White and Peloza (2009) developed and engaged self-benefit and other-benefit constructs within the context of charity donation messaging. The authors explained that charities routinely deploy campaigns that leverage either or both constructs due to their effectiveness. Benefit-self is a construct used by White and Peloza (2009) to measure those benefits that primarily benefit the charitable donor, e.g. a tax receipt, gift, or feeling good about oneself. Notionally, a self-benefit donation appeal could be “it feels good to feed the poor or donate and receive a tax deduction.” This type of messaging intentionally appeals to the benefits of the donor. These scholars also used benefit-other as a construct to reflect those benefits that primarily help others, e.g. social causes that aid organizations or individuals. For example, an other-benefit donation appeal could be “help fight child malnutrition.” In this instance, there is no mention of donor benefits to entice assistance. More interestingly, through a series of experiments, White and Peloza (2009) found that consumers donate to social causes that message self-benefits in a private setting, i.e. seclusion. Moreover, these scholars reported that consumers donate to social causes that message other-benefits when they can be held publicly accountable for it to enhance their public self-image, i.e. a public donation. These findings suggest that people give to social causes to help themselves either directly or indirectly depending upon the context.

In our study, we evolve and repurpose these constructs to categorize benefit types service providers could offer to improve consumer purchase intent. We define self-benefits as any

enhancement to the service offering that primarily impacts the consumer. These could be warranty enhancements for cars or clothing. These could also be a meal enhancement, i.e. complementary dessert or live entertainment, at a restaurant. We define other-benefit as any enhancement to the service offering that primarily impacts a social cause beneficiary. This could be a restaurant, dealership, travel agency, or clothing retailer donation to a social cause of the consumer's choice to entice purchase intent. Arora and Henderson (2007) found that consumers were not particularly charitable over other self-rewarding alternatives in medium to large denominations, i.e. consumers significantly preferred price reductions greater than 15 cents over equivalent donations to social causes. Consequently, in accordance with RCT, we advocate that most consumers will behave in a self-interested manner when choosing benefits offered by service providers. Therefore,

H<sub>2</sub>: Compared to other-benefits, self-benefits are a more effective form of sales promotion.

#### 2.6.3.3 Role of Narcissism

Mehdizadeh (2010) defined narcissism as, “a pervasive pattern of grandiosity, need for admiration, and an exaggerated sense of self-importance.” For the purpose of this study we adopt this definition; however, the literature concerning the connection between narcissism and charitable donations is sparse. Konrath et al. (2016) explored the relationship between narcissism and prosocial behaviors, or those actions intended to benefit others, i.e. cooperation, giving, helping, etc. These scholars reported that narcissistic people tend to help others when they are being watched or when the circumstances are not anonymous. For instance, narcissistic people were less likely to donate to amyotrophic lateral sclerosis (ALS) but were likely to pour ice water on themselves and post a video of the activity on Facebook. Brunell et al. (2014) reported a similar result in college students. Those students that scored high in narcissism

volunteered to help others to satisfy self-interests, i.e. gain career experience, enhance social networking, or remove negative emotions. Kauten and Barry (2014) found adolescence that scored high in narcissism self-reported prosocial behaviors to enhance their social status. Since our experiments were conducted anonymously, in a private setting and had no direct influence on the respondent's social status, we posit narcissism to be an appropriate fit, i.e. for those that scored low, to explain respondents who chose donations to social causes. Therefore,

H<sub>3</sub>: Low narcissistic consumers choose other-benefit promotions.

#### 2.6.4 Control Variables

The following control variables were examined as covariates in our study.

- Age (18-24, 25-34, 35-44, 45-54, 55 – 64, 65 and above)
- Education (high school/GED equivalent, some college, 2-year college degree, 4-year college degree, master's degree, doctoral degree)
- Employment (apprentice, technician, middle management, executive, retired)
- Ethnicity (white, African American, Hispanic, Asian, Native American, Pacific Islander, other)
- Gender (male, female)
- Smoker (yes, no)
- Yearly income (less than \$30K, \$30K–\$50K, \$50K-\$100K, \$100K-\$150K, \$150K-\$200K, greater than \$200K)
- Total wealth (less than \$15K, \$15K-\$30K, \$30K-\$50K, \$50K-\$100K, \$100K-\$150K, \$150K-\$200K, greater than \$200K)
- Unnecessary credit card debt (yes, no)
- Weekly credit card use (Don't own, none, 1-3 times, 4-10 times, 11-15 times, greater than 16)

## CHAPTER 3

### METHODOLOGY

#### 3.1 Mixed Method Approach

A mixed method design proved to be a highly effective approach for this dissertation. What follows is a detailed explanation for each method employed by specific research question. This is appropriate since the research question should determine the appropriate method or tool applied (Creswell & Tashakkori 2007).

##### 3.1.1 Research Question 1

###### 3.1.1.1 Conceptual BSSM

For this portion of the dissertation, we employed a conceptual Boardman Soft Systems Methodology (BSSM). A Soft Systems Methodology (SSM) is a method to investigate complex organizational and management problems that involve humans (Rose & Haynes 1999). A BSSM is an instantiation of an SSM but it uses a diagramming tool known as a systemigram. Systemigrams are effective tools at approaching problems or complex activities and illustrating their elements and linkages (Cloutier et al. 2015). Moreover, systemigrams are used to express stakeholder concerns and enable the graphical illustration of the problem or complex issue into a coherent and digestible artifact from which to activate intelligent change. Since marketing, logistics and the processes of value creation involve humans, BSSM proved to be an effective methodology to address this research question. Figure 15 outlines the seven steps in accomplishing a traditional BSSM.

The first step involves looking at the problem without structure and incorporating perspectives from as many stakeholders as possible to capture the problem or situation, i.e.



employ pictures, conduct interviews, oral discussions, etc. The second step includes describing the problem situation by reviewing multiple sources of information to enhance validity.

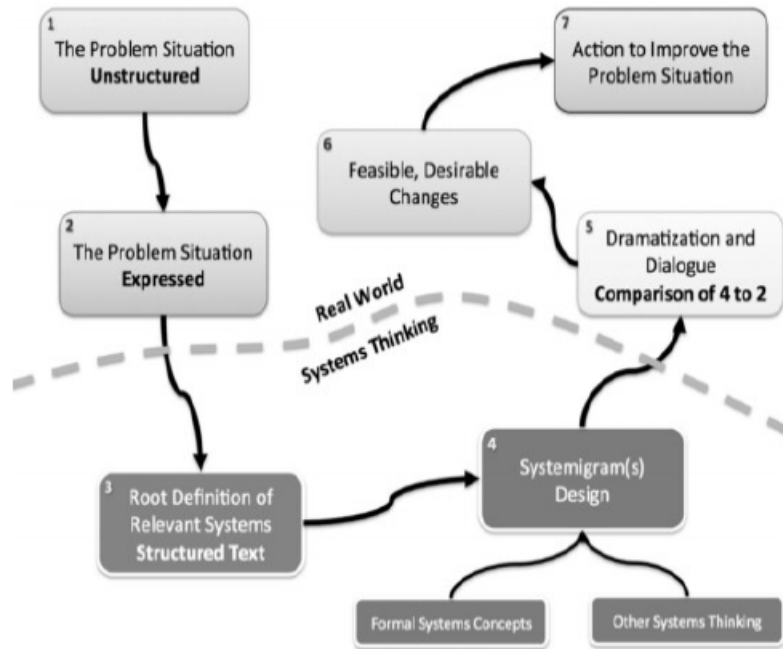


Figure 15. BSSM steps.

For this dissertation, this meant examining the most impactful S-D Logic publications, i.e. 100 citations as a rule of thumb, from many authors. Key concepts considered for inclusion were sourced by frequency of use and appropriateness of fit. The third step is to conceptualize the problem or situation into structure text. Step three is the divide between the real world and systems thinking where key elements and interrelationships are examined to gain a clearer understanding of the whole. Step four entails developing the systemigram from the structured text. To complete the process, one should follow the remaining steps; however, this involves stakeholders and making changes to the systemigram to conform to the needs of the stakeholders, i.e. S-D Logic scholars. The BSSM steps are repeated until the problem or situation is appropriately defined, improved, or insights have been gained (Cloutier et al. 2015).

This dissertation did not complete this process due to a limitation in resources. However, the primary insights gained from this process led this dissertation on the path to investigating value and its creation, since value co-creation is a central S-D Logic concept.

### 3.1.2 Research Question 2

#### 3.1.2.1 Exploratory Literature Review

For the value and value creation exploratory literature review, this study acquired publications with three techniques. The first employed publication searches that had approximately 100 citations. For this effort, this research leveraged Google scholar as it enabled the identification, through citation counts, of the most relevant and respected publications that met the search criteria or key terms. The second technique this study used was to comb the references of those publications identified from the first technique to determine if any were relevant to this study. Those that were relevant were selected for further investigation. The final technique involved mining three journals, spanning the entire history of the journals, for all relevant value literature. These journals included: Journal of Marketing, Journal of the Academy of Marketing Science, and the Journal of Creating Value. This study collected all literature and applied MAXQDA 12 for further analysis and inspection. In total, this study investigated over 350 scholarly works.

### 3.1.3 Research Question 3

#### 3.1.3.1 Survey and SEM

For this portion of the dissertation, we employed a survey through a popular crowd sourcing medium known as Amazon Mechanical Turk. This study executed the survey within the context of health care delivery since this type of interaction is both common for potential survey respondents and an activity where co-production of value is rich. Moreover, waste in the United

States healthcare industry is conservatively estimated between \$1 to 1.5 trillion per year; thus the demand for cost savings is high (Berwick & Hackbarth 2012; Knowledge@Wharton 2016). Perhaps this study could provide some solutions to enhancing patient outcomes and reduced spending. Given the nature of the context, a survey proved to be a highly efficient and effective manner for collecting data. While this study could have applied regression modeling, covariance-based structural equation modeling (CB-SEM) is a more accurate tool since it takes measurement error into account and it can simultaneously estimate all parameters of the measurement and structural models. Moreover, regression confounds measurement and prediction error (Iacobucci 2010). The SEM approach enhances the credibility of this study; whereas other techniques, i.e. regression, would not have produced results with similar accuracy. Executing the survey through Amazon Mechanical Turk was also appropriate since it enabled a broad and accurate sample of the citizens of the United States. Moreover, since computers are ubiquitous, this method of collecting the data certainly has more advantages than any potential bias that may exist from this approach. Clear advantages of this approach include a broad survey of age groups, ethnicities, family status, income earning status, etc. Table 13 is available to reference for a complete list of the attributes possessed by the survey respondents. In addition, other impactful studies have mined participants through Amazon Mechanical Turk (Bhattacharjee & Mogilner 2013; Chernev & Blair 2015; Lambrecht & Tucker 2013; Rosenzweig & Gilovich 2012; Sussman & Olivola 2011).

#### 3.1.3.1.1 Procedures, Sample, and Measures

This study developed a survey with 22 questions to collect data for analysis. This research collected the survey sample from the Amazon Mechanical Turk crowd sourcing website. Within this website members aged 18 and above, from all ethnicities, social classes,

genders, etc., can provide feedback via published surveys. This survey offered an associated completion fee of 50 cents per respondent. This created an incredible incentive and thus all respondents submitted results in less than two days, which eliminated the need to test for non-response bias. In addition, users had one opportunity to complete the survey to eliminate any redundant responses. Furthermore, only those respondents living within the United States were granted access to complete the survey. This population included a total of 523 respondents. To prevent analyzing non-credible data, an additional 41 respondents were culled from the sample due to survey completion in less than two minutes. A total of 5 respondents were removed due to being overly influential outliers that shared no insightful commonalities. The final tally of usable responses included 477 completed surveys. Key demographics from survey participants can be viewed in Table 13.

Table 13

*Survey Respondent Demographics*

Age	18-24	25-34	35-44	45-54	55-64	65 and older
	13%	35%	19%	15%	13%	4%
Education	High school/GED	Some College	2 yr College Degree	4 yr College Degree	Masters Degree	Doctoral Degree
	11%	25%	12%	37%	14%	1%
Employment	Apprentice	Technician	Middle Mgt	Senior Mgt	N/A	
	10%	23%	24%	7%	35%	
Ethnicity	White/Caucasian	African American	Hispanic	Asian	Other	
	76%	9%	4%	8%	3%	
Family Structure	Single/no children	Single/with children	Married/no children	Married/with children	Other	
	42%	8%	15%	30%	4%	
Gender	Male	Female				
	45%	55%				
Combined Annual Income	<\$30K	Between \$30K and \$50K	Between \$50K and \$100K	>\$100K		
	27%	23%	36%	14%		
Total Wealth	<\$15K	Between \$15K and \$30K	Between \$30K and \$50K	Between \$50K and \$100K	>\$100K	
	40%	13%	10%	11%	27%	

Table 13 only includes respondent demographics that had fully completed survey responses. While the reported demographics do not fully mirror those of the United States Census Bureau, Table 13 discloses the diversity of the sample size, which enhances the generalizability of this research's results and conclusions (Bureau 2015).

This research incorporated several measurement scales from previous marketing and business research efforts and contextualized them within health care. Unfortunately, Lusch et al. (2007b) did not provide associate scales with the six factors posited to influence the propensity for a customer to co-produce value. Thus, several scales were either adopted fully, partially, or created in full. This study developed and purified 19 scale items. In total, 7 pilot tests aided in scale purification. Face validity for scale items were confirmed via a panel of 12 faculty members (Battacherjee 2012). Items that we adopted and recontextualized from the literature are presented in Table 14.

Table 14

*Adopted Survey Scales*

<b>Construct</b>	<b>Items Adopted</b>	<b>Source</b>
Control	2	Spreitzer 1995
Risk Taking	3	Jambulingam et al. 2005
Economic Benefits	1	Geyskens & Steenkamp 2000
Satisfaction	2	Chen & Silverthorne 2008
Repurchase Intent	3	Fang et al. 2014

This research aggregated the survey responses and analyzed the items via exploratory and confirmatory factor analysis. Appendix B can be referenced for the entire survey instrument. This research generated Table 15 by executing an exploratory factor analysis via the Principle Component Analysis method with a varimax rotation. All items loaded with a minimum score of

.600 and a maximum of .936 which provides model validity. Table 15 reports no significant issues with convergent and divergent validity and reliability (Hair 2009). While item 3 under repurchase intent does exhibit a moderate cross loading on satisfaction, it was retained for future model development and measurement purposes (Hair 2009). Furthermore, all Cronbach's Alpha scores in Table 15 presents acceptable internal consistency (Hair 2009).

Table 15

*Exploratory Factor Loadings and Reliability*

Item	Exp	Psych B	Cont	Econ B	Phy C	Risk T	Trans C	VCP	Sat	RI	Cronbach's Alpha
1	0.771										0.920
2	0.863										
3	0.890										
1		0.891									0.927
2		0.890									
3		0.766									
1			0.844								0.868
2			0.813								
3			0.766								
1				0.832							0.864
2				0.867							
3				0.624							
1					0.780						0.830
2					0.751						
3					0.714						
1						0.870					0.879
2						0.851					
3						0.711					
1							0.757				0.934
2							0.893				
3							0.901				
4							0.873				
1								0.800			0.841
2								0.665			
3								0.713			
1									0.761		0.946
2									0.821		
3									0.807		
1										0.750	0.872
2										0.936	
3								0.487	0.600		

All exploratory factor analysis results were certified in a confirmatory factor analysis presented in Table 16.

Table 16

*Confirmatory Factor Loadings*

Item	Exp	Psych B	Cont	Econ B	Phy C	Risk T	Trans C	VCP	Sat	RI
1	0.82									
2	0.91									
3	0.92									
1		0.93								
2		0.90								
3		0.84								
1			0.86							
2			0.86							
3			0.78							
1				0.91						
2				0.90						
3				0.70						
1					0.81					
2					0.78					
3					0.78					
1						0.89				
2						0.87				
3						0.77				
1							0.76			
2							0.88			
3							0.95			
4							0.93			
1								0.79		
2								0.77		
3								0.80		
1									0.89	
2									0.96	
3									0.94	
1										0.80
2										0.97
3										0.78

### 3.1.4 Research Question 4

#### 3.1.4.1 Survey Experimental Design

This research executed a series of two single factor and three single factor between group experimental surveys through the popular crowd sourcing medium Amazon Mechanical Turk. This research developed two different experimental studies. The first employed service offerings and measured the influence of a menu of benefits on consumer purchase intent, i.e. a four by three experimental design. The second study measured the influence of a single benefit on consumer purchase intent to eliminate any confounding effects that emerged from a menu of benefits, i.e. a four by three by three design. This research developed several exchange scenarios to include the purchasing of a jacket from a retailer, a car from a dealership, a restaurant prepared meal and a Hawaiian vacation for four. This research attempted to equalize the exchange value between the diverse scenarios to see if there were any interesting insights between physical products and services, e.g. the car was approximately near the exchange value of the vacation for four. In addition, the meal was approximately near the exchange value of the jacket.

Experimental design is also appropriate since its power resides in isolating the impact of the manipulation. This method through random assignment of respondents into different groups reduces confounding inferences between groups. Thus, experiments are highly effective at highlighting causal inference (Cook et al. 2002; Roe & Just 2009). All collected data were further analyzed through the use of two-way Analysis of Variance (ANOVA) parametric method. This method in conjunction with the Tukey-Kramer procedure is appropriate as it controls for experiment-wise error rates while conducting pairwise group mean comparisons; thereby effectively controlling the Type 1 error rate at an alpha of .05 percent (Hayter 1989).



The final portion of this research leveraged a point biserial correlation procedure to analyze the hypothesized relationship between narcissism and those who choose benefit enhancements that help others. This method was appropriate since it used data from a 16-item Narcissist Personality Inventory (NPI-16) scale (Ames et al. 2006). We collected the data via a 7-point Likert scale from 1 = strongly disagree through 7 = strongly agree and transformed it into a summated scale for enhanced reliability (Nevicka et al. 2018), and measured it for statistical significance with a dichotomous categorical variable, i.e. yes or no, which captured whether respondents chose benefits that helped others over benefits that helped themselves, price reductions, or those that refused the service offering (Ashton & Kramer 1980). Respondents self-reported if they chose a donation to social causes to enhance purchase intention.

#### 3.1.4.1.1 Procedures, Sample, and Measures

This research executed a series of 8 experimental survey's that ranged anywhere between 20 and 30 questions to collect data for analysis. Given the nature of the research question and associate scenarios, this research collected the survey sample from the Amazon Mechanical Turk crowd sourcing medium. From this medium, members aged 18 and above, from all ethnicities, social classes, genders, etc., can provide feedback via published experimental surveys. Once participants chose to take the experimental survey, they were randomly assigned to one of several groups that were provided a scenario with a unique treatment. Otherwise, participants were randomly selected for inclusion in the experimental control group. Each experimental survey offered a completion reward of 50 cents per respondent. Additionally, users had one opportunity to complete the survey. Furthermore, only those respondents living within the United States were granted access to complete the survey. Group sizes between experiments varied between approximately 30 and 50 respondents. Group sizes within experiments were near

equivalent. This research adopted several scales from the literature and used them in this study. These scales and associate authors are presented in Table 17.

Table 17

*Adopted Survey Scales*

<b>Construct</b>	<b>Items Adopted</b>	<b>Source</b>
Purchase Intent	4	Bearden et al. 1984
Narcissism	2	Ames et al. 2006

We measured purchase intent on a 1 to 5 bipolar Likert scale and summated the results for further analysis. We measured narcissism on a strongly disagree to strongly agree 1 to 7 Likert scale and summated the scores for further study.

This research included a total of 2,561 respondents. To prevent analyzing non-credible data, respondents were culled from the sample due to survey completion in less than two minutes. Table 19 highlights the demographics of those who participated in our study.

Table 18

*Experiment Respondent Demographics*

Age	18 to 24 12%	25 to 34 39%	35 to 44 22%	45 to 54 13%	55 to 64 9%	65 and over 4%	
Education	HS/GED 11%	Some College 25%	2yr CD 13%	4 yr CD 37%	Masters 12%	Doctoral 2%	
Employment	Apprentice 8%	Technician 20%	Mid Mgt 28%	Executive 6%	Retired 10%	N/A 28%	
Ethnicity	White 73%	Af Amer 9%	Hispanic 7%	Asian 6%	Native Amer 1%	Pacific Islander 0%	Other 2%
Gender	Male 41%	Female 59%					

*(table continues)*

Yearly Income	Less than \$30K	\$30K - \$50K	\$50K - \$100K	\$100K - \$150K	\$150K - \$200K	Greater than \$200K	
	23%	27%	36%	10%	3%	1%	
Total Wealth	Less than \$15K	\$15K - \$30K	\$30K - \$50K	\$50K - \$100K	\$100K - \$150K	\$150K - \$200K	Greater than \$200K
	36%	13%	9%	12%	7%	6%	17%
Unnecessary Credit Card Debt	Yes	No					
	39%	61%					
Weekly Credit Card Use	Don't own	None	1-3 times	4-10 times	11-15 times	greater than 16	
	15%	25%	41%	14%	3%	2%	

Table 19 only includes respondent demographics that had fully completed survey responses.

While the reported demographics do not fully reflect those of the United States Census Bureau,

Table 19 shows the diversity of the sample size, which strengthens the generalizability of this research's results and conclusions (Bureau 2015).

### 3.1.4.2 Study 1 Scenarios

In study 1 we tested the impact of a menu of benefits on consumer purchase intent in four distinct service offerings. We chose four distinct service offerings to seek any potential uniformities and enhance the generalizability of the results that emerge from this study.

Moreover, each chosen service offering is rich with either price or benefit promotions within the market. Each scenario in study 1 had 7 groups: 1 control group, 3 benefits group, and 3 price promotions group. However, in the interest of brevity, only a single scenario per group, i.e.


control, benefit, and price promotion, is presented for each scenario. The only verbiage that changed within groups was the manipulation levels, i.e. 1% (low), 3% (medium), and 5% (high).

The first scenario examined  $H_{1a}$  within the context of shopping for a jacket from a mall retailer.

Respondents from the control group were asked to read the following scenario, presented in

Figure 16, and asked to rate their intention to purchase the jacket. We applied this type of

framing and measurement method for all subsequent scenarios in study 1. Respondents were also asked to provide willingness to pay for each service offering as a reference for future experiment development, i.e. study 2 scenario refinements.



Imagine you just entered a shopping mall. It's a little cold outside so you are happy to be inside the mall. You enter a store and you quickly come across a light weight jacket pictured above.

It is competitively priced at \$60. Nearly everything about the light weight jacket and price suit your needs, i.e. it fits comfortably and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this jacket, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect light weight jacket for you (all things considered it would take time and effort but you know there is a better jacket to price ratio out there for you). So, you decide to put it back and continue shopping for another 10 minutes but find nothing else that adequately peaks your interest.


But before you leave the store you think to yourself, "Should I purchase that light weight jacket?"

Please answer the following questions about whether or not you will purchase that light weight jacket.

Figure 16. Study 1 jacket control group (Scenario 1).

Respondents from the benefit manipulation groups were asked to read a scenario like the one presented in Figure 17. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer purchase intention, i.e. 1% (low), 3% (medium), and 5% (high). The percentages for all scenarios across study's 1 and 2 represent either a benefit or price promotion as percentage of the total price of the service offering. Since respondents that are exposed to the scenario depicted in Figure 17 are offered a menu of benefits, which include donations to a social cause of preference, they in fact may only pick one from them menu of offerings; not a mix of benefits. For instance, if a consumer chooses the clothing retailer to donate to a social cause of their choice, they may not also enter a

contest or any other secondary benefit to enhance consumer purchase intention. We provided these rules to respondents for all scenarios in study 1.



Imagine you just entered a shopping mall. It's a little cold outside so you are happy to be inside the mall. You enter a store and you quickly come across a light weight jacket pictured above.

It is competitively priced at \$60. Nearly everything about the light weight jacket and price suit your needs, i.e. it fits comfortably and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary. |

After carefully examining this jacket, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect light weight jacket for you (all things considered it would take time and effort but you know there is a better jacket to price ratio out there for you). So, you decide to put it back and continue shopping for another 10 minutes but find nothing else that adequately peaks your interest.

But before you leave the store you think to yourself, "What would entice me to go back and pick up that light weight jacket back off the hangar and purchase it?"

Now imagine that you could get a 1% enhanced benefit on the deal (up to 1% the sales price of the item).

Here is a list of common benefits for you to choose from (you may choose only one). If necessary, you may use your imagination on your ideal benefit up to 1% the sales price of the item.

- Product customization, e.g. initials stitched on the inside (60 cent value)
- A 60 cent store donation to a social cause of your choice, e.g. helping children, medical research, etc.
- Enter a contest to win a prize: All store customers pool 1% of their purchase prices into a single weekly cash prize contest.
- Buy one get something of 1% the sales price free
- Enhanced after sales support valued at 1% the sales price
- Extended or a more lenient warranty valued at 1% the sales price
- Other (what else you may have in mind with up to 1% the sales price)

Now, imagine it is possible the store will fulfill that 1% benefit enhancement.

Please rate your intention to purchase the light weight jacket now knowing you will be more satisfied due to the enhanced benefit.

Figure 17. Study 1 jacket benefits group (Scenario 1).

Respondents from the price promotion groups were asked to read a scenario like the one presented in Figure 18. The only changes between the price promotion scenarios were the increases in the percentage of total price promotions offered to entice consumer purchase intention, i.e. 1% (low), 3% (medium), and 5% (high). Thus, consumers in any given price promotion group were only offered a single price promotion to entice purchase intent.



Imagine you just entered a shopping mall. It's a little cold outside so you are happy to be inside the mall. You enter a store and you quickly come across a light weight jacket pictured above.

It is competitively priced at \$60. Nearly everything about the light weight jacket and price suit your needs, i.e. it fits comfortably and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this jacket, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect light weight jacket for you (all things considered it would take time and effort but you know there is a better jacket to price ratio out there for you). So, you decide to put it back and continue shopping for another 10 minutes but find nothing else that adequately peaks your interest.

But before you leave the store you think to yourself "What would entice me to go back and pick up that light weight jacket back off the hangar and purchase it?"

Now imagine that you could get a 3% price reduction on the deal (the jacket is now \$58.20).

Please rate your intention to purchase the light weight jacket now knowing you will be more satisfied due to the price reduction.

*Figure 18.* Study 1 jacket price reduction group (Scenario 1).

The second scenario examined  $H_{1a}$  within the context of shopping for an automobile from a dealership. Respondents from the control group were asked to read the following scenario, presented in Figure 19, and rate their intention to purchase the new vehicle. Respondents were also requested to provide willingness to pay for each service offering as a reference for future experiment development, i.e. study 2 scenario refinements.



Imagine you are shopping for an economical car as your current vehicle is getting older and less reliable. You enter a dealership and you quickly come across a brand new 4 cylinder 6 speed automatic car.

It is competitively priced at \$14,000 out the door. Nearly everything about the vehicle and price suit your needs, i.e. it is comfortable, has a nice (3 year, 36,000 mile) basic warranty, and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this car, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect car for you (all things considered it would take time and effort but you know there is a better car to price ratio out there for you). So, you decide to continue shopping for another 30 minutes but find nothing else that adequately peaks your interest.

But before you leave the dealership you think to yourself, "Should I purchase that car pictured above?"

Please answer the following questions about whether or not you will purchase that vehicle.

*Figure 19.* Study 1 car control group (Scenario 2).

Respondents from the benefit manipulation groups were asked to read a scenario like the one presented in Figure 20. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer purchase intention, i.e. 1% (low), 3% (medium), and 5% (high).



Imagine you are shopping for an economical car as your current vehicle is getting older and less reliable. You enter a dealership and you quickly come across a brand new 4 cylinder 6 speed automatic car. It is competitively priced at \$14,000 out the door. Nearly everything about the vehicle and price suit your needs, i.e. it is comfortable, has a nice (3 year, 36,000 mile) basic warranty, and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary. |

After carefully examining this car, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect car for you (all things considered it would take time and effort but you know there is a better car to price ratio out there for you). So, you decide to continue shopping for another 30 minutes but find nothing else that adequately peaks your interest.

But before you leave the dealership you think to yourself, "What would entice me to go back and purchase that car pictured above?"

Now imagine that you could get a 3% enhanced benefit on the deal (up to 3% the sales price of the item).

Here is a list of common benefits for you to choose from (you may choose only one). If necessary, you may use your imagination on your ideal benefit up to 3% the sales price of the item or \$420.

- A set of tires that will last 60,00 miles (stock tires typically last around 45,000 miles)
- A \$420 dealership donation to a social cause of your choice, e.g. helping children, medical research, etc.
- Vehicle customization valued at 3% the sales price, e.g. custom striping
- Enter a contest to win a prize: All participating dealership customers pool 3% of their purchase prices into a single weekly cash prize contest.
- Enhanced after sales support valued at 3% the sales price, e.g. 20 free oil changes
- Extended or a more lenient warranty valued at 3% the sales price, e.g. 4 year/48,000 mile basic warranty (12,000 mile and 1 year increase from original warranty)
- Other (what else you may have in mind with up to 3% the sales price)


Now, imagine it is possible the dealership will fulfill that 3% benefit enhancement of your choice.

Please rate your intention to purchase the car now knowing you will be more satisfied due to the enhanced benefit.

Figure 20. Study 1 car benefits group (Scenario 2).

Respondents from the price promotion groups were asked to read a scenario like the one presented in Figure 21. The only changes between the price promotion scenarios were the increases in the percentage of total price promotions offered to entice consumer purchase intention, i.e. 1% (low), 3% (medium), and 5% (high). Thus, consumers in any given price promotion group were only offered a single price promotion to entice purchase intent.





Imagine you are shopping for an economical car as your current vehicle is getting older and less reliable. You enter a dealership and you quickly come across a brand new 4 cylinder 6 speed automatic car. It is competitively priced at \$14,000 out the door. Nearly everything about the vehicle and price suit your needs, i.e. it is comfortable, has a nice (3 year, 36,000 mile) basic warranty, and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this car, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect car for you (all things considered it would take time and effort but you know there is a better car to price ratio out there for you). So, you decide to continue shopping for another 30 minutes but find nothing else that adequately peaks your interest.

But before you leave the dealership you think to yourself, "What would entice me to go back and purchase that car pictured above?"

Now imagine that you could get a 3% price reduction on the deal (the vehicle is now \$13,580 out the door).

Please rate your intention to purchase the vehicle now knowing you will be more satisfied due to the price reduction

*Figure 21.* Study 1 car price reduction group (Scenario 2).

The third scenario examined  $H_{1a}$  within the context of choosing a restaurant for an important dinner. Respondents from the control group were asked to read the following scenario, presented in Figure 22, and rate their intention to purchase a prime rib dinner. We also requested respondents provide willingness to pay for each service offering as a reference for future experiment development, i.e. study 2 scenario refinements.



Imagine it is your wedding anniversary. You want to take your spouse to a nice 12 oz prime rib dinner and you are deciding which restaurant to dine in. You know you want it to be a nice evening so fast food will not suffice but you are also not looking to spend too much money. You come across a restaurant that serves the following type of prime rib dinner pictured above.

The meal looks delicious and nearly everything about the restaurant and prices suit your needs. The restaurant is clean and the food is economically priced for two prime rib dinners and drinks. After carefully examining the menu, you know that after taxes and appropriately tipping your server, you are going to spend \$60 before leaving the restaurant.

After careful thought, you know if you eat dinner here you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect meal for you and your spouse (all things considered it would take time and effort but you know there is a better dining experience to price ratio out there for you).

But before you decide to look for another dining option, you think to yourself, "Should we dine at this restaurant?"

Please answer the following questions about whether or not you will purchase your prime rib dinner at this restaurant.

*Figure 22.* Study 1 meal control group (Scenario 3).

Respondents from the benefit manipulation groups were asked to read a scenario like the one presented in Figure 23. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer purchase intention, i.e. 1% (low), 3% (medium), and 5% (high).



Imagine it is your wedding anniversary. You want to take your spouse to a nice 12 oz prime rib dinner and you are deciding which restaurant to dine in. You know you want it to be a nice evening so fast food will not suffice but you are also not looking to spend too much money. You come across a restaurant that serves the following type of prime rib dinner pictured above.

The meal looks delicious and nearly everything about the restaurant and prices suit your needs. The restaurant is clean and the food is economically priced for two prime rib dinners and drinks. After carefully examining the menu, you know that after taxes and appropriately tipping your server, you are going to spend \$60 before leaving the restaurant.

After careful thought, you know if you eat dinner here you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect meal for you and your spouse (all things considered it would take time and effort but you know there is a better dining experience to price ratio out there for you).

But before you decide to look for another dining option, you think to yourself, "What would entice me to dine at this restaurant?"

Now imagine that you could get a 1% enhanced benefit on the deal (up to 1% of the total money spent or 60 cents in additional value).

Here is a list of common benefits for you to choose from (you may choose only one). If necessary, you may use your imagination on your ideal benefit up to 1% of the total money spent.

- Enter a contest to win a prize: All participating restaurant customers pool 1% of their total money spent into a single weekly cash prize contest.
- Restaurant donates 60 cents towards paying down the \$20 T US national debt (assume the debt doesn't continue to grow)
- A 60 cent restaurant donation to a social cause of your choice, e.g. helping children, medical research, etc.
- A complementary dessert
- Live piano music
- Restaurant contributes 60 cents towards paying for your server's health care coverage
- Other (what else you may have in mind with up to 1% of the total money spent)

Now, imagine it is possible the restaurant will fulfill that 1% benefit enhancement.

Please rate your intention to purchase the prime rib dinner now knowing you will be more satisfied due to the enhanced benefit.

Figure 23. Study 1 meal benefits group (Scenario 3).

Respondents from the price promotion groups were asked to read a scenario like the one presented in Figure 24. The only changes between the price promotion scenarios were the increases in the percentage of total price promotions offered to entice consumer purchase intention, i.e. 1% (low), 3% (medium), and 5% (high). Thus, consumers in any given price promotion group were only offered a single price promotion to entice purchase intent.



Imagine it is your wedding anniversary. You want to take your spouse to a nice 12 oz prime rib dinner and you are deciding which restaurant to dine in. You know you want it to be a nice evening so fast food will not suffice but you are also not looking to spend too much money. You come across a restaurant that serves the following type of prime rib dinner pictured above.

The meal looks delicious and nearly everything about the restaurant and prices suit your needs. The restaurant is clean and the food is economically priced for two prime rib dinners and drinks. After carefully examining the menu, you know that after taxes and appropriately tipping your server, you are going to spend \$60 before leaving the restaurant.

After careful thought, you know if you eat dinner here you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect meal for you and your spouse (all things considered it would take time and effort but you know there is a better dining experience to price ratio out there for you).

But before you decide to look for another dining option, you think to yourself, "What would entice me to dine at this restaurant?"

Now imagine that you could get a 1% price reduction on the deal (you will now pay a total of \$59.40) Please rate your intention to purchase the prime rib dinner now knowing you will be more satisfied due to the price reduction.

*Figure 24.* Study 1 meal price reduction group (Scenario 3).

The fourth scenario examined  $H_{1a}$  within the context of purchasing a Hawaii tour vacation package for four people. Respondents from the control group were asked to read the following scenario, presented in Figure 25, and rate their intention to purchase the vacation package. We also requested respondents provide willingness to pay for each service offering as a reference for future experiment development, i.e. study 2 scenario refinements.



Imagine you and three of your closest friends or family members have decided to take a once in a lifetime vacation together to Hawaii. You have been dreaming of this vacation getaway and planning for it for quite some time and now it could finally happen. To get the best deal, you decide to get a group package called, "The Four Island Ultimate Hawaii Tour". Please watch the short video above for details on this group vacation package (turn on your speakers).

The total price of this vacation package for all four of you is \$14,500.

Here are some of the details for this bundled vacation package:

- Airfare to/from your closest city airport
- 12 night hotel accommodations
- 3 interisland jet flights
- Fully escorted from start to finish with our Polynesian tour director
- Baggage handling from arrival in Honolulu to departure in Kona
- Plenty of time on your own to enjoy Hawaii's spectacular beaches
- Visit the USS Arizona memorial and visitor center at Pearl Harbor
- Stroll the world famous Waikiki Beach
- Explore the Battleship Missouri in Pearl Harbor
- Visit Hawaii's Volcanoes National Park
- Witness the mystical Fern Grotto on a Wailua Riverboat cruise
- 6 included sightseeing tours

After careful thought, you know if you buy the vacation package you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect vacation package (all things considered it would take time and effort but you know there is a better vacation package to price ratio out there for you).

But before you decide to look for other vacation options you ask yourself, "Should I purchase the four island ultimate Hawaii tour vacation package?"

Please rate your intention to purchase "The Four Island Ultimate Hawaii Tour" vacation package

Figure 25. Study 1 vacation control group (Scenario 4).

Respondents from the benefit manipulation groups were asked to read a scenario like the one presented in Figure 26. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer purchase intention, i.e. 1% (low), 3% (medium), and 5% (high). In addition, we linked each vacation scenario with a five-minute video outlining the Hawaii tour and its key sights to provide the respondent with more experiential detail than a picture could offer.



Imagine you and three of your closest friends or family members have decided to take a once in a lifetime vacation together to Hawaii. You have been dreaming of this vacation getaway and planning for it for quite some time and now it could finally happen. To get the best deal, you decide to get a group package called, "The Four Island Ultimate Hawaii Tour". Please watch the short video above for details on this group vacation package (turn on your speakers).

The total price of this vacation package for all four of you is \$14,500. Here are some of the details for this bundled vacation package:

- Airfare to/from your closest city airport
- 12 night hotel accommodations
- 3 interisland jet flights
- Fully escorted from start to finish with our Polynesian tour director
- Baggage handling from arrival in Honolulu to departure in Kona
- Plenty of time on your own to enjoy Hawaii's spectacular beaches
- Visit the USS Arizona memorial and visitor center at Pearl Harbor
- Stroll the world famous Waikiki Beach
- Explore the Battleship Missouri in Pearl Harbor
- Visit Hawaii's Volcanoes National Park
- Witness the mystical Fern Grotto on a Wailua Riverboat cruise
- 6 included sightseeing tours

After careful thought, you know if you buy the vacation package you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect vacation package (all things considered it would take time and effort but you know there is a better vacation package to price ratio out there for you). But before you decide to look for other vacation options you ask yourself, "What would entice me to purchase the the four island ultimate Hawaii tour vacation package?"

Now imagine that you could get a 1% enhanced benefit on the deal (up to 1% of the sales price of the tour package or \$145 in additional value).

Here are a list of common benefits for you to choose from (you may choose only one). If necessary, you may use your imagination on your ideal benefit up to 1% the sales price of the tour package.

- A nice photo album documenting the highlights of your stay in Hawaii (\$145 value)
- A bundle of tasteful t-shirts and hats to commemorate your stay in Hawaii (\$145 value)
- A \$145 travel agency donation to a social cause of your choice, e.g. helping children, medical research, etc.
- Travel agency donates \$145 towards paying down the \$20T US national debt (assume the debt doesn't continue to grow)
- Travel agency contributes \$145 towards paying for your tour guides health care coverage
- Enter a contest to win a prize: All participating travel agency customers' pool 1% of their purchase prices into a single weekly cash prize contest.
- Other (what else you may have in mind with up to 1% the sales price)


Now, imagine it is possible the travel agency will fulfill that 1% benefit enhancement.

Please rate your intention to purchase "The Four Island Ultimate Hawaii Tour" vacation package now knowing you will be more satisfied due to the enhanced benefit.

Figure 26. Study 1 vacation benefits group (Scenario 4).

Respondents from the price promotion groups were asked to read a scenario like the one presented in Figure 27. The only changes between the price promotion scenarios were the increases in the percentage of total price promotions offered to entice consumer purchase

intention, i.e. 1% (low), 3% (medium), and 5% (high). Thus, consumers in any given price promotion group were only offered a single price promotion to entice purchase intent.



Imagine you and three of your closest friends or family members have decided to take a once in a lifetime vacation together to Hawaii. You have been dreaming of this vacation getaway and planning for it for quite some time and now it could finally happen. To get the best deal, you decide to get a group package called, "The Four Island Ultimate Hawaii Tour". Please watch the short video above for details on this group vacation package (turn on your speakers).

The total price of this vacation package for all four of you is \$14,500. Here are some of the details for this bundled vacation package:

- Airfare to/from your closest city airport
- 12 night hotel accommodations
- 3 interisland jet flights
- Fully escorted from start to finish with our Polynesian tour director
- Baggage handling from arrival in Honolulu to departure in Kona
- Plenty of time on your own to enjoy Hawaii's spectacular beaches
- Visit the USS Arizona memorial and visitor center at Pearl Harbor
- Stroll the world famous Waikiki Beach
- Explore the Battleship Missouri in Pearl Harbor
- Visit Hawaii's Volcanoes National Park
- Witness the mystical Fern Grotto on a Wailua Riverboat cruise
- 6 included sightseeing tours

After careful thought, you know if you buy the vacation package you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect vacation package (all things considered it would take time and effort but you know there is a better vacation package to price ratio out there for you). But before you decide to look for other vacation options you ask yourself, "What would entice me to purchase the four island ultimate Hawaii tour vacation package?"

Now imagine that you could get a 5% price reduction on the deal (you will now pay a total of \$13,775).

Please rate your intention to purchase "The Four Island Ultimate Hawaii Tour" vacation package now knowing you will be more satisfied due to the price reduction.

Figure 27. Study 1 vacation price reduction group (Scenario 4).

### 3.1.4.3 Study 2 Scenarios

To reduce any confounding effects brought forth from a menu of benefits, i.e. a menu of self-benefits and other-benefits combined, this study examined singular benefits, i.e. a single self-benefit or other-benefit and equivalent price reductions to entice consumer purchase intent

across the same four service offerings employed in the previous study. Study 2 seeks to empirically test  $H_{1b}$ ,  $H_2$  and  $H_3$ . We adjusted the manipulations for all scenarios in study 2 based upon the previous study results. Thus, each manipulation spans 1% (low), 5%, (medium) and 10% (high) to garner greater variance from the respondents. In addition, for all scenarios in study 2, we presented each singular benefit based upon respondent preferences that were self-reported in study 1. Thus, those preferences that respondents ranked the highest for each service offering in study 1 were selected as the singular benefit offered in study 2. Moreover, a choice of social cause donation is also presented as a singular benefit with its own group for all scenarios in study 2. Finally, we adjusted the pricing of all the service offerings in study 2 based upon the willingness to pay data reported by respondents from study 1. This ensures our prices are within or near the reference prices that consumers have perceived are appropriate for any given service offering (Putler 1992).

The first scenario examined  $H_{1b}$  and  $H_2$  within the context of shopping for a jacket from a mall retailer. Respondents from the control group were asked to read the following scenario, presented in Figure 28, and rate their intention to purchase the jacket. We applied this type of framing and measurement method for all subsequent scenarios in study 2.





Imagine you just entered a shopping mall. It's a little cold outside so you are happy to be inside the mall. You enter a store and you quickly come across a light weight jacket pictured above.

It is competitively priced at \$80. Nearly everything about the light weight jacket and price suit your needs, i.e. it fits comfortably and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this jacket, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect light weight jacket for you (all things considered it would take time and effort but you know there is a better jacket to price ratio out there for you). So, you decide to put it back and continue shopping for another 10 minutes but find nothing else that adequately peaks your interest.

But before you leave the store you think to yourself, "Should I purchase that light weight jacket?"

Please answer the following questions about whether or not you will purchase that light weight jacket

*Figure 28.* Study 2 jacket control group (Scenario 1).

Respondents from the benefit manipulation groups (self-benefit) were asked to read a scenario like the one presented in Figure 29. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). Contexts were the singular benefit employed in this group.



Imagine you just entered a shopping mall. It's a little cold outside so you are happy to be inside the mall. You enter a store and you quickly come across a light weight jacket pictured above.

It is competitively priced at \$80. Nearly everything about the light weight jacket and price suit your needs, i.e. it fits comfortably and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this jacket, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect light weight jacket for you (all things considered it would take time and effort but you know there is a better jacket to price ratio out there for you). So, you decide to put it back and continue shopping for another 10 minutes but find nothing else that adequately peaks your interest.

But before you leave the store you think to yourself, "What would entice me to go back and pick up that light weight jacket back off the hangar and purchase it?"

Now imagine that you could get a 1% enhanced benefit on the deal (up to 1% the sales price of the item or 80 cents).

In this instance, your 1% enhanced benefit is

- Enter a contest to win a prize: All participating store customers pool 1% of their purchase prices into a single weekly cash prize contest.

Now, imagine it is possible the store will fulfill that 1% benefit enhancement.

Please rate your intention to purchase the light weight jacket now knowing you will be more satisfied due to the enhanced benefit.

Figure 29. Study 2 jacket contest group (Scenario 1).

Respondents from the benefit manipulation groups (other-benefit) were asked to read a scenario like the one presented in Figure 30. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). A store donation to the respondent's social cause of choice was the singular benefit employed in this group.



Imagine you just entered a shopping mall. It's a little cold outside so you are happy to be inside the mall. You enter a store and you quickly come across a light weight jacket pictured above.

It is competitively priced at \$80. Nearly everything about the light weight jacket and price suit your needs, i.e. it fits comfortably and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this jacket, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect light weight jacket for you (all things considered it would take time and effort but you know there is a better jacket to price ratio out there for you). So, you decide to put it back and continue shopping for another 10 minutes but find nothing else that adequately peaks your interest.

But before you leave the store you think to yourself, "What would entice me to go back and pick up that light weight jacket back off the hangar and purchase it?"

Now imagine that you could get a 10% enhanced benefit on the deal (up to 10% the sales price of the item).

In this instance, your 10% enhanced benefit is

- A \$8 store donation to a social cause of your choice, e.g. helping children, medical research, etc.

Now, imagine it is possible the store will fulfill that 10% benefit enhancement.

Please rate your intention to purchase the light weight jacket now knowing you will be more satisfied due to the enhanced benefit.

*Figure 30.* Study 2 jacket social cause group (Scenario 1).

Respondents from the price promotion groups were asked to read a scenario like the one presented in Figure 31. The only changes between the price promotion scenarios were the increases in the percentage of total price promotions offered to entice consumer purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). Thus, consumers in any given price promotion group were only offered a single price promotion to entice purchase intent.



Imagine you just entered a shopping mall. It's a little cold outside so you are happy to be inside the mall. You enter a store and you quickly come across a light weight jacket pictured above.

It is competitively priced at \$80. Nearly everything about the light weight jacket and price suit your needs, i.e. it fits comfortably and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this jacket, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect light weight jacket for you (all things considered it would take time and effort but you know there is a better jacket to price ratio out there for you). So, you decide to put it back and continue shopping for another 10 minutes but find nothing else that adequately peaks your interest.

But before you leave the store you think to yourself, "What would entice me to go back and pick up that light weight jacket back off the hangar and purchase it?"

Now imagine that you could get a 1% price reduction on the deal (the jacket is now \$79.20).

Please rate your intention to purchase the light weight jacket now knowing you will be more satisfied due to the price reduction.

*Figure 31.* Study 2 jacket price reduction group (Scenario 1).

The second scenario examined  $H_{1b}$  and  $H_2$  within the context of purchasing a new automobile from a dealership. Respondents from the control group were asked to read the following scenario, presented in Figure 32, and rate their intention to purchase the new vehicle.



Imagine you are shopping for an economical car as your current vehicle is getting older and less reliable. You enter a dealership and you quickly come across a brand new 4 cylinder 6 speed automatic car.

It is competitively priced at \$14,000 out the door. Nearly everything about the vehicle and price suit your needs, i.e. it is comfortable, has a nice (3 year, 36,000 mile) basic warranty, and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this car, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect car for you (all things considered it would take time and effort but you know there is a better car to price ratio out there for you). So, you decide to continue shopping for another 30 minutes but find nothing else that adequately peaks your interest.

But before you leave the dealership you think to yourself, "Should I purchase that car pictured above?"

Please answer the following questions about whether or not you will purchase that vehicle.

*Figure 32.* Study 2 car control group (Scenario 2).

Respondents from the benefit manipulation groups (self-benefit) were asked to read a scenario like the one presented in Figure 33. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). An extended warranty was the singular benefit employed in this group.



Imagine you are shopping for an economical car as your current vehicle is getting older and less reliable. You enter a dealership and you quickly come across a brand new 4 cylinder 6 speed automatic car.

It is competitively priced at \$14,000 out the door. Nearly everything about the vehicle and price suit your needs, i.e. it is comfortable, has a nice (3 year, 36,000 mile) basic warranty, and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this car, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect car for you (all things considered it would take time and effort but you know there is a better car to price ratio out there for you). So, you decide to continue shopping for another 30 minutes but find nothing else that adequately peaks your interest.

But before you leave the dealership you think to yourself, "What would entice me to go back and purchase that car pictured above?"

Now imagine that you could get a 1% enhanced benefit on the deal (up to 1% the sales price of the item).

In this instance, your 1% enhanced benefit is

- Extended or a more lenient warranty valued at 1% the sales price, e.g. 3 year/40,000 mile basic warranty (4,000 mile increase from original warranty)

Now, imagine it is possible the dealership will fulfill that 1% benefit enhancement.

Please rate your intention to purchase the car now knowing you will be more satisfied due to the enhanced benefit.

*Figure 33.* Study 2 car warranty group (Scenario 2).

Respondents from the benefit manipulation groups (other-benefit) were asked to read a scenario like the one presented in Figure 34. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). A dealership donation to the respondent's social cause of choice was the singular benefit employed in this group.



Imagine you are shopping for an economical car as your current vehicle is getting older and less reliable. You enter a dealership and you quickly come across a brand new 4 cylinder 6 speed automatic car.

It is competitively priced at \$14,000 out the door. Nearly everything about the vehicle and price suit your needs, i.e. it is comfortable, has a nice (3 year, 36,000 mile) basic warranty, and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this car, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect car for you (all things considered it would take time and effort but you know there is a better car to price ratio out there for you). So, you decide to continue shopping for another 30 minutes but find nothing else that adequately peaks your interest.

But before you leave the dealership you think to yourself, "What would entice me to go back and purchase that car pictured above?"

Now imagine that you could get a 1% enhanced benefit on the deal (up to 1% the sales price of the item).

In this instance, your 1% enhanced benefit is

- A \$140 dealership donation to a social cause of your choice, e.g. helping children, medical research, etc.

Now, imagine it is possible the dealership will fulfill that 1% benefit enhancement.

Please rate your intention to purchase the car now knowing you will be more satisfied due to the enhanced benefit.

*Figure 34.* Study 2 car social cause group (Scenario 2).

Respondents from the price promotion group were asked to read a scenario like the one presented in Figure 35. The only changes between the price promotion scenarios were the increases in the percentage of total price promotions offered to entice consumer purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). Thus, consumers in any given price promotion group were only offered a single price promotion to entice purchase intent.



Imagine you are shopping for an economical car as your current vehicle is getting older and less reliable. You enter a dealership and you quickly come across a brand new 4 cylinder 6 speed automatic car.

It is competitively priced at \$14,000 out the door. Nearly everything about the vehicle and price suit your needs, i.e. it is comfortable, has a nice (3 year, 36,000 mile) basic warranty, and it's also your favorite color. Please feel free to imagine another color that better suits your preferences, if necessary.

After carefully examining this car, you know if you buy it you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect car for you (all things considered it would take time and effort but you know there is a better car to price ratio out there for you). So, you decide to continue shopping for another 30 minutes but find nothing else that adequately peaks your interest.

But before you leave the dealership you think to yourself, "What would entice me to go back and purchase that car pictured above?"

Now imagine that you could get a 1% price reduction on the deal (the vehicle is now \$13,860 out the door).

Please rate your intention to purchase the vehicle now knowing you will be more satisfied due to the price reduction.

*Figure 35.* Study 2 car price reduction group (Scenario 2).

The third scenario examined  $H_{1b}$ ,  $H_2$  and  $H_3$  within the context of choosing a restaurant for an important dinner. We chose this scenario to measure narcissism and test its point biserial correlation with those who chose social causes since its exchange value was \$60 total for the dinner, relatively low price point by comparison to the other scenarios. Thus, we anticipated that consumers would be more apt to donate to social causes since its range of donations varied between manipulations from 60 cents to \$6. Respondents from the control group were asked to read the following scenario, presented in Figure 36, and rate their intention to purchase the prime rib dinner.





Imagine it is your wedding anniversary. You want to take your spouse to a nice 12 oz prime rib dinner and you are deciding which restaurant to dine in. You know you want it to be a nice evening so fast food will not suffice but you are also not looking to spend too much money. You come across a restaurant that serves the following type of prime rib dinner pictured above.

The meal looks delicious and nearly everything about the restaurant and prices suit your needs. The restaurant is clean and the food is economically priced for two prime rib dinners and drinks. After carefully examining the menu, you know that after taxes and appropriately tipping your server, you are going to spend \$60 before leaving the restaurant.

After careful thought, you know if you eat dinner here you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect meal for you and your spouse (all things considered it would take time and effort but you know there is a better dining experience to price ratio out there for you).

But before you decide to look for another dining option, you think to yourself, "Should we dine at this restaurant?"

Please answer the following questions about whether or not you will purchase your prime rib dinner at this restaurant.

*Figure 36.* Study 2 meal control group (Scenario 3).

Respondents from the benefit manipulation groups (self-benefit) were asked to read a scenario like the one presented in Figure 37. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). A complementary dessert was the singular benefit employed in this group. Each dessert offered in the various treatment levels employed a unique picture of the complementary dessert. Thus, a more visually appealing and larger looking dessert was pictured for the 10% benefit groups in comparison to the other treatment levels.



Imagine it is your wedding anniversary. You want to take your spouse to a nice 12 oz prime rib dinner and you are deciding which restaurant to dine in. You know you want it to be a nice evening so fast food will not suffice but you are also not looking to spend too much money. You come across a restaurant that serves the following type of prime rib dinner pictured above.

The meal looks delicious and nearly everything about the restaurant and prices suit your needs. The restaurant is clean and the food is economically priced for two prime rib dinners and drinks. After carefully examining the menu, you know that after taxes and appropriately tipping your server, you are going to spend \$60 before leaving the restaurant.

After careful thought, you know if you eat dinner here you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect meal for you and your spouse (all things considered it would take time and effort but you know there is a better dining experience to price ratio out there for you).

But before you decide to look for another dining option, you think to yourself, "What would entice me to dine at this restaurant?"

Now imagine that you could get a 1% enhanced benefit on the deal (up to 1% of the total money spent or 60 cents in additional value).

In this instance, your 1% enhanced benefit is

- A complimentary dessert pictured below. You may select 2 desserts from the choices below.



Now, imagine it is possible the restaurant will fulfill that 1% benefit enhancement.

Please rate your intention to purchase the prime rib dinner now knowing you will be more satisfied due to the enhanced benefit.

Figure 37. Study 2 meal dessert group (Scenario 3).

Respondents from the benefit manipulation groups (other-benefit) were asked to read a scenario like the one presented in Figure 38. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). A restaurant donation to the respondent's social cause of choice was the singular benefit employed in this group.



Imagine it is your wedding anniversary. You want to take your spouse to a nice 12 oz prime rib dinner and you are deciding which restaurant to dine in. You know you want it to be a nice evening so fast food will not suffice but you are also not looking to spend too much money. You come across a restaurant that serves the following type of prime rib dinner pictured above.

The meal looks delicious and nearly everything about the restaurant and prices suit your needs. The restaurant is clean and the food is economically priced for two prime rib dinners and drinks. After carefully examining the menu, you know that after taxes and appropriately tipping your server, you are going to spend \$60 before leaving the restaurant.

After careful thought, you know if you eat dinner here you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect meal for you and your spouse (all things considered it would take time and effort but you know there is a better dining experience to price ratio out there for you).

But before you decide to look for another dining option, you think to yourself, "What would entice me to dine at this restaurant?"

Now imagine that you could get a 1% enhanced benefit on the deal (up to 1% of the total money spent or 60 cents in additional value).

In this instance, your 1% enhanced benefit is

- A 60 cent restaurant donation to a social cause of your choice, e.g. helping children, medical research, etc.

Now, imagine it is possible the restaurant will fulfill that 1% benefit enhancement.

Please rate your intention to purchase the prime rib dinner now knowing you will be more satisfied due to the enhanced benefit

*Figure 38.* Study 2 meal social cause group (Scenario 3).

Respondents from the price promotion group were asked to read a scenario like the one presented in Figure 39. The only changes between the price promotion scenarios were the increases in the percentage of total price promotions offered to entice consumer purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). Thus, consumers in any given price promotion group were only offered a single price promotion to entice purchase intent.



Imagine it is your wedding anniversary. You want to take your spouse to a nice 12 oz prime rib dinner and you are deciding which restaurant to dine in. You know you want it to be a nice evening so fast food will not suffice but you are also not looking to spend too much money. You come across a restaurant that serves the following type of prime rib dinner pictured above.

The meal looks delicious and nearly everything about the restaurant and prices suit your needs. The restaurant is clean and the food is economically priced for two prime rib dinners and drinks. After carefully examining the menu, you know that after taxes and appropriately tipping your server, you are going to spend \$60 before leaving the restaurant.

After careful thought, you know if you eat dinner here you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect meal for you and your spouse (all things considered it would take time and effort but you know there is a better dining experience to price ratio out there for you).

But before you decide to look for another dining option, you think to yourself, "What would entice me to dine at this restaurant?"

Now imagine that you could get a 5% price reduction on the deal (you will now pay a total of \$57)

Please rate your intention to purchase the prime rib dinner now knowing you will be more satisfied due to the price reduction.

*Figure 39.* Study 2 meal price reduction group (Scenario 3).

The fourth scenario examined  $H_{1b}$  and  $H_2$  within the context of choosing a Hawaii vacation package for four. Respondents from the control group were instructed to read the following scenario, presented in Figure 40, and asked to rate their intention to purchase the Hawaii vacation package for four people. In addition, we linked each vacation scenario with a five-minute video outlining the Hawaii tour and its key sights to provide the respondent with more experiential detail than a picture could offer.



Imagine you and three of your closest friends or family members have decided to take a once in a lifetime vacation together to Hawaii. You have been dreaming of this vacation getaway and planning for it for quite some time and now it could finally happen. To get the best deal, you decide to get a group package called, "The Four Island Ultimate Hawaii Tour". Please watch the short video above for details on this group vacation package (turn on your speakers).

The total price of this vacation package for all four of you is \$10,800. That is \$2,700 per person.

Here are some of the details for this bundled vacation package:

- Airfare to/from your closest city airport
- 12 night hotel accommodations
- 3 interisland jet flights
- Fully escorted from start to finish with our Polynesian tour director
- Baggage handling from arrival in Honolulu to departure in Kona
- Plenty of time on your own to enjoy Hawaii's spectacular beaches
- Visit the USS Arizona memorial and visitor center at Pearl Harbor
- Stroll the world famous Waikiki Beach
- Explore the Battleship Missouri in Pearl Harbor
- Visit Hawaii's Volcanoes National Park
- Witness the mystical Fern Grotto on a Wailua Riverboat cruise
- 6 included sight seeing tours

After careful thought, you know if you buy the vacation package you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect vacation package (all things considered it would take time and effort but you know there is a better vacation package to price ratio out there for you).


But before you decide to look for other vacation options you ask yourself, "Should I purchase the four island ultimate Hawaii tour vacation package?"

Please rate your intention to purchase "The Four Island Ultimate Hawaii Tour" vacation package.

Figure 40. Study 2 vacation control group (Scenario 4).

Respondents from the benefit manipulation groups (self-benefit) were asked to read a scenario like the one presented in Figure 41. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). A varying vacation enhancement experience was the singular benefit employed in this group, i.e. the 1% manipulation group was offered a guided cave tour, the 5% manipulation group was offered a cave tour and a snorkeling adventure, and the 10% manipulation group was offered a helicopter

volcano over flight sightseeing enhancement. Each vacation enhancement offered in the various treatment levels employed a unique picture of the experience.



Imagine you and three of your closest friends or family members have decided to take a once in a lifetime vacation together to Hawaii. You have been dreaming of this vacation getaway and planning for it for quite some time and now it could finally happen. To get the best deal, you decide to get a group package called, "The Four Island Ultimate Hawaii Tour". Please watch the short video above for details on this group vacation package (turn on your speakers).

The total price of this vacation package for all four of you is \$10,800. That is \$2,700 per person.

Here are some of the details for this bundled vacation package:

- Airfare to/from your closest city airport
- 12 night hotel accommodations
- 3 interisland jet flights
- Fully escorted from start to finish with our Polynesian tour director
- Baggage handling from arrival in Honolulu to departure in Kona
- Plenty of time on your own to enjoy Hawaii's™ spectacular beaches
- Visit the USS Arizona memorial and visitor center at Pearl Harbor
- Stroll the world famous Waikiki Beach
- Explore the Battleship Missouri in Pearl Harbor
- Visit Hawaii's Volcanoes National Park
- Witness the mystical Fern Grotto on a Wailua Riverboat cruise
- 6 included sight seeing tours


After careful thought, you know if you buy the vacation package you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect vacation package (all things considered it would take time and effort but you know there is a better vacation package to price ratio out there for you).

But before you decide to look for other vacation options you ask yourself, "What would entice me to purchase the the four island ultimate Hawaii tour vacation package?"

Now imagine that you could get a 1% enhanced benefit on the deal (up to 1% of the sales price of the tour package or \$108 in additional value).

In this instance, your 1% enhanced benefit is

- An enhanced vacation experience, i.e. a guided cave adventure (experience picture below)




Now, imagine it is possible the travel agency will fulfill that 1% benefit enhancement which covers all four of you

Please rate your intention to purchase "The Four Island Ultimate Hawaii Tour" vacation package now knowing you will be more satisfied due to the enhanced benefit.

Figure 41. Study 2 vacation guided cave group (Scenario 4).

Respondents from the benefit manipulation groups (other-benefit) were asked to read a scenario like the one presented in Figure 42. The only changes between the benefit manipulation scenarios were the increases in the percentage of total benefits offered to entice consumer

purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). A travel agency donation to the respondent's social cause of choice was the singular benefit employed in this group.



Imagine you and three of your closest friends or family members have decided to take a once in a lifetime vacation together to Hawaii. You have been dreaming of this vacation getaway and planning for it for quite some time and now it could finally happen. To get the best deal, you decide to get a group package called, "The Four Island Ultimate Hawaii Tour". Please watch the short video above for details on this group vacation package (turn on your speakers).

The total price of this vacation package for all four of you is \$10,800. That is \$2,700 per person.

Here are some of the details for this bundled vacation package:

- Airfare to/from your closest city airport
- 12 night hotel accommodations
- 3 interisland jet flights
- Fully escorted from start to finish with our Polynesian tour director
- Baggage handling from arrival in Honolulu to departure in Kona
- Plenty of time on your own to enjoy Hawaii's spectacular beaches
- Visit the USS Arizona memorial and visitor center at Pearl Harbor
- Stroll the world famous Waikiki Beach
- Explore the Battleship Missouri in Pearl Harbor
- Visit Hawaii's Volcanoes National Park
- Witness the mystical Fern Grotto on a Waialua Riverboat cruise
- 6 included sight seeing tours

After careful thought, you know if you buy the vacation package you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect vacation package (all things considered it would take time and effort but you know there is a better vacation package to price ratio out there for you).

But before you decide to look for other vacation options you ask yourself, "What would entice me to purchase the the four island ultimate Hawaii tour vacation package?"

Now imagine that you could get a 1% enhanced benefit on the deal (up to 1% of the sales price of the tour package or \$108 in additional value).

In this instance, your 1% enhanced benefit is

- A \$108 travel agency donation to a social cause of your choice, e.g. helping children, medical research, etc.


Now, imagine it is possible the travel agency will fulfill that 1% benefit enhancement.

Please rate your intention to purchase "The Four Island Ultimate Hawaii Tour" vacation package now knowing you will be more satisfied due to the enhanced benefit.

Figure 42. Study 2 vacation social cause group (Scenario 4).

Respondents from the price promotion group were asked to read a scenario like the one presented in Figure 43. The only changes between the price promotion scenarios were the

increases in the percentage of total price promotions offered to entice consumer purchase intention, i.e. 1% (low), 5% (medium), and 10% (high). Thus, consumers in any given price promotion group were only offered a single price promotion to entice purchase intent.



Imagine you and three of your closest friends or family members have decided to take a once in a lifetime vacation together to Hawaii. You have been dreaming of this vacation getaway and planning for it for quite some time and now it could finally happen. To get the best deal, you decide to get a group package called, "The Four Island Ultimate Hawaii Tour". Please watch the short video above for details on this group vacation package (turn on your speakers).

The total price of this vacation package for all four of you is \$10,800. That is \$2,700 per person.

Here are some of the details for this bundled vacation package:

- Airfare to/from your closest city airport
- 12 night hotel accommodations
- 3 interisland jet flights
- Fully escorted from start to finish with our Polynesian tour director
- Baggage handling from arrival in Honolulu to departure in Kona
- Plenty of time on your own to enjoy Hawaii's spectacular beaches
- Visit the USS Arizona memorial and visitor center at Pearl Harbor
- Stroll the world famous Waikiki Beach
- Explore the Battleship Missouri in Pearl Harbor
- Visit Hawaii's Volcanoes National Park
- Witness the mystical Fern Grotto on a Waialua Riverboat cruise
- 6 included sight seeing tours

After careful thought, you know if you buy the vacation package you will be better off but you will be only moderately happy with your purchase since you know it is not the perfect vacation package (all things considered it would take time and effort but you know there is a better vacation package to price ratio out there for you).

But before you decide to look for other vacation options you ask yourself, "What would entice me to purchase the the four island ultimate Hawaii tour vacation package?"

Now imagine that you could get a 1% price reduction on the deal (you will now pay a total of \$10,692 or \$2,673 per person)

Please rate your intention to purchase "The Four Island Ultimate Hawaii Tour" vacation package now knowing you will be more satisfied due to the price reduction.

Figure 43. Study 2 vacation price reduction group (Scenario 4).



## CHAPTER 4

### RESULTS AND ANALYSIS

#### 4.1 Research Question 3 Results and Analysis

##### 4.1.1 Structural Model

This research tested the model in Figure 13 and it converged with an acceptable fit:  $\chi^2 = 1011.4$  ( $df = 404$ ), RMSEA=0.056, NNFI= 0.97, CFI= 0.97, SRMR=0.056, GFI=0.88, AGFI=0.85. Table 19 discloses some important information, i.e. covariance in the bottom half, correlations highlighted in the top half, average variance extracted (AVE) bold in the diagonal and construct reliability (CR) in the far-right column of the table.

Table 19

*Covariance (White), Correlations (Grey), AVEs (Diagonal) and CRs*

Factor	Exp	Cont	Phy C	Risk T	Psych B	Econ B	Trans C	VCP	Sat	FI	CR
Exp	<b>0.79</b>	0.04	0.41**	-0.01	0.45**	0.09*	0.17**	0.3**	0.23**	0.16**	0.92
Cont	0.06	<b>0.70</b>	0.35**	-0.11*	0.16**	0.4**	-0.1	0.36**	0.28**	0.19*	0.87
Phy C	0.80	0.41	<b>0.62</b>	-0.08	0.31**	0.37**	-0.03	0.46**	0.36**	0.24**	0.83
Risk T	-0.03	-0.17	-0.16	<b>0.71</b>	-0.21**	-0.2**	0.43**	-0.28**	-0.22**	-0.15**	0.88
Psych B	1.06	0.23	0.56	-0.52	<b>0.82</b>	0.33**	-0.16**	0.7**	0.54**	0.36**	0.93
Econ B	0.14	0.39	0.46	-0.35	0.49	<b>0.71</b>	-0.32**	0.6**	0.47**	0.31**	0.88
Trans C	0.42	-0.15	-0.05	1.16	-0.38	-0.52	<b>0.78</b>	-0.38**	-0.3**	-0.2**	0.93
VCP	0.55	0.41	0.66	-0.55	1.22	0.71	-0.72	<b>0.62</b>	0.78**	0.52**	0.83
Sat	0.48	0.36	0.57	-0.47	1.05	0.61	-0.62	1.17	<b>0.86</b>	0.67**	0.95
FI	0.38	0.28	0.45	-0.38	0.83	0.48	-0.49	0.93	1.32	<b>0.73</b>	0.89

Table 19 shows that reliability for all scales exceed recommended levels, which suggest high construct measurement purity, with results ranging from 0.83 to 0.95 (Hair 2009). We assessed discriminant validity for each construct via the Fornell and Larcker (1981) method where the AVE for each construct were compared to the shared variance between constructs. Thus, discriminant validity is attained when each construct's AVE exceeds the squared correlation between constructs. These data passed this method, thereby demonstrating

appropriate discriminant validity. This research accounted for common method bias by following some procedures outlined by Podsakoff et al. (2003). This study informed survey respondents of their anonymity and that there is no right or wrong answer to the survey questions. The intent was to ease any temptations for respondents to be more socially desirable or consistent with how this research wanted them to respond. In addition, within the survey this study avoided vague concepts, and kept questions simple and focused. Finally, for statistical assurance we executed Harman's single factor test to detect for any common method variance. The results confirmed that constraining the exploratory factor analysis to one factor only explained a total of 29 percent of variance. Thus, no single factor in this study accounts for most of the covariance among our measures. Figure 44 summarizes the results for the hypothesized theoretical model.

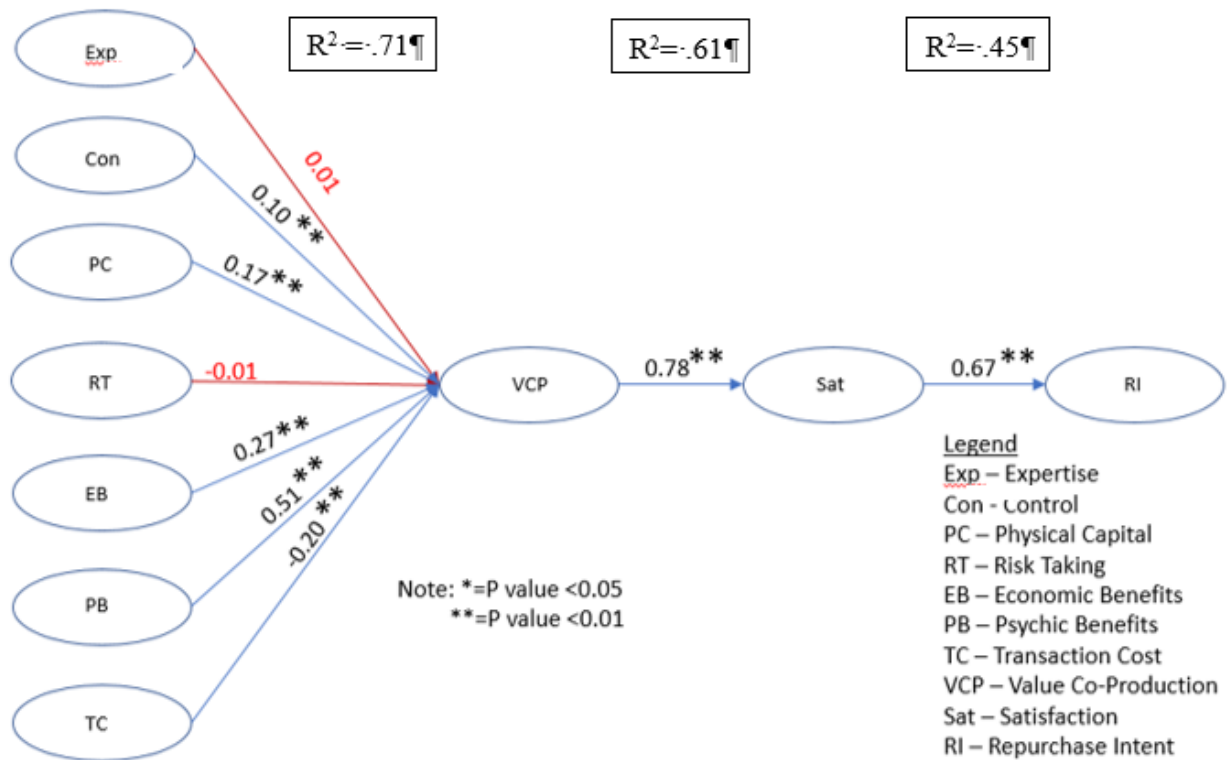


Figure 44. Standardized parameter estimates and p-values.

We found statistical support for most of our hypothesized model, i.e. only H<sub>2</sub> and H<sub>5</sub> were non-significant. As reported in Figure 44, economic benefits, psychic benefits, physical capital, control and transaction costs have significant influence on a patient's propensity to co-produce value in a service offering. Additionally, co-production ( $\beta=0.78$ ,  $p<0.01$ ) showed a statistically significant impact on satisfaction. Satisfaction ( $\beta=0.67$ ,  $p<0.01$ ) also significantly influenced patient repurchase intention. Moreover, the associate r square for each hierarchy of the model reveals a highly predictive set of constructs. Psychic benefits possessed the strongest impact ( $\beta=0.51$ ,  $p<0.01$ ) on value co-production. This suggests those patients that derive some type of psychological or experiential benefit by conversing with their doctor will display a higher propensity to shape the service offering. More practically, we would expect these patients to productively interact with the medical provider to create feasible and practical courses of action to enhance health outcomes. This finding should verify the importance of appropriate bedside manner for providers; thus, if patients perceive that their personal care is a priority for their provider, they will have a higher propensity to co-produce during service encounters. This uncovers an important social dimension in addition to the required equipment and medical expertise that healthcare providers must possess and exploit to enhance patient interactions (Silverman 2012). The second most influential determinant of co-production is economic benefits ( $\beta=0.27$ ,  $p<0.01$ ). This highlights that a patient who values their health from an economic perspective will have a greater propensity to shape the service offering. More interesting, transaction cost ( $\beta=-0.20$ ,  $p<0.01$ ) proved the third most influential construct on value co-production. This illustrates the importance of a medical provider's receptiveness of patient information and communication. Thus, the more difficult it is to communicate with a medical provider, the less value emerges during co-production efforts. Several medical studies

have found similar results to those discussed with regards to the patient-doctor relationship. Leppert et al. (1996) found that patients desired more time and effective communication with their doctors. Federman et al. (2001) reported that patients didn't want to return to their medical providers due to low levels of satisfaction with respect to duration of interactions with their doctor and their perceptions of not being listened to. More recently, Street et al. (2009) proposed that effective communication between patients and doctors leads to enhanced trust, satisfaction, patient involvement, motivation to adhere, commitment, and health outcomes.

We found expertise was non-significant, in conjunction with physical capital, which showed statistical significance to be an interesting pair of results. Since physical capital represents those with access to acquaintances, friends or family who possess some medical knowledge, we interpret this to mean that a patient doesn't need to be an expert in any given area within the medical field to effectively co-produce with a service provider. The significance of physical capital supports this conclusion as one only needs to have a general awareness of medical conditions, which could be gained from acquaintances, friends or family members, to effectively co-produce. Thus, it is the medical doctor who needs to be an expert on health-related techniques, disease causes and prevention, prognosis, and treatment options to guide the patient towards a co-produced personalized plan of action. Whereas the patient is the only one who fully knows about their history of illness, habits, preferences, values, etc. Together, these types of knowledge should be coalesced to enhance patient outcomes (Coulter 1999).

We also confirmed the importance of a patient wanting to control their health outcomes ( $\beta=0.10$ ,  $p<0.01$ ). Thus, patients more effectively co-produce with their service provider when they realize they influence their own health outcomes. Hibbard and Greene (2013) reported that more active patients, i.e. the willingness to act to manage health outcomes, experience greater

health outcomes than those who are passive. Consequently, this highlights the need for patients to take ownership in their health needs. Finally, it appears there is no link between risk taking and co-production efforts with a medical service provider. We interpret this finding as a positive reflection on the medical community as it instantiates that patients do not perceive the interaction with their doctor as risky or as sharing highly personal information a barrier to co-production efforts. It may also reveal that patients do not view medical providers as overly paternalistic, where an imbalance in power enables one party to make decisions on behalf of the other. This finding may be an indication that medical training applied to enhance shared decision making is now a common practice which has positive cascading effects in the patient-doctor dyad (Davis et al. 2003). Consequently, this result suggests that patients generally do not view the interaction with a medical provider as a social threat where a patient may experience humiliation, shame, or interactions that reduce self-esteem.

This study tested for mediation via the Hayes Process procedure found in the SPSS statistics software package. We used model 4 to test mediation with bootstrapping set to 5,000 (Preacher & Hayes 2004). Overall, satisfaction proved to fully mediate the relationship between co-production and repurchase intent. In addition, co-production fully mediated the relationships between satisfaction and the control and physical capital constructs; however, it only partially mediated the relationships between satisfaction and the economic benefits, psychic benefits, and transaction cost constructs. The Sobel test also confirmed these findings. More details concerning these results are presented in Table 20.

Table 20

*Hayes PROCESS Mediation Results*

Relation	F value	P value	R <sup>2</sup>	b	T value	P value	Tot Efx	Direct Efx	Indirect Efx	Sobel Test	Mediate
VCP predicts RI	F(1,475)=144	P<.01	0.23	0.482	t(475)=11.99	P<.01					
VCP predicts Sat	F(1,475)=361	P<.01	0.43	0.699	t(475)=19.00	P<.01					
VCP with Sat predicts RI	F(2,474)=185.4	P<.01	0.44	0.103	t(474)=1.89	P=.0593					
Sat with VCP predicts RI	F(2,474)=185.4	P<.01	0.44	0.683	t(474)=13.20	P<.01	0.48	0.00	0.48	Z= 10.83 , P<.01, effect=.4769	Full
Cont predicts Sat	F(1,475)=30.342	P<.01	0.06	0.245	t(475)=11.79	P<.01					
Cont predicts VCP	F(1,475)=47.767	P<.01	0.09	0.365	t(475)=6.911	P<.01					
Cont with VCP predicts Sat	F(2,474)=181.88	P<.01	0.43	0.066	t(474)=1.408	P=.159					
VCP with Cont predicts Sat	F(2,474)=181.88	P<.01	0.43	0.682	t(474)=17.70	P<.01	0.25	0.00	0.25	Z= 6.42 , P<.01, effect=.2492	Full
PC predicts Sat	F(1,475)=52.17	P<.01	0.1	0.315	t(475)=7.223	P<.01					
PC predicts VCP	F(1,475)=82.73	P<.01	0.15	0.373	t(475)=9.09	P<.01					
PC with VCP predicts Sat	F(2,474)=183.42	P<.01	0.44	0.074	t(474)=1.93	P=.0539					
VCP with PC predicts Sat	F(2,474)=183.42	P<.01	0.44	0.669	t(474)=16.84	P<.01	0.25	0.00	0.25	Z=7.99 , P<.01, effect=.2500	Full
EB predicts Sat	F(1,475)=177.64	P<.01	0.27	0.522	t(475)=13.32	P<.01					
EB predicts VCP	F(1,475)=177.11	P<.01	0.27	0.608	t(475)=13.30	P<.01					
EB with VCP predicts Sat	F(2,474)=215.23	P<.01	0.48	0.305	t(474)=6.31	P<.01					
VCP with EB predicts Sat	F(2,474)=215.23	P<.01	0.48	0.562	t(474)=13.57	P<.01	0.65	0.31	0.34	Z=9.49 , P<.01, effect=.3421	Partial

(table continues)

Relation	F value	P value	R <sup>2</sup>	b	T value	P value	Tot Efx	Direct Efx	Indirect Efx	Sobel Test	Mediate
PB predicts Sat	F(1,475)=192.45	P<.01	0.29	0.537	t(475)=13.87	P<.01					
PB predicts VCP	F(1,475)=282.99	P<.01	0.74	0.485	t(475)=16.82	P<.01					
PB with VCP predicts Sat	F(2,474)=202.79	P<.01	0.46	0.182	t(474)=5.07	P<.01					
VCP with PB predicts Sat	F(2,474)=202.79	P<.01	0.46	0.558	t(474)=12.33	P<.01	0.45	0.18	0.27	Z=9.93 , P<.01, effect=.2709	Partial
TC predicts Sat	F(1,475)=71.1	P<.01	0.13	-0.361	t(475)=-8.43	P<.01					
TC predicts VCP	F(1,475)=43.19	P<.01	0.08	-0.229	t(475)=-6.57	P<.01					
TC with VCP predicts Sat	F(2,474)=204.98	P<.01	0.46	-0.158	t(474)=-5.31	P<.01					
VCP with TC predicts Sat	F(2,474)=204.98	P<.01	0.46	0.641	t(474)=17.17	P<.01	-0.30	-0.16	-0.15	Z= -6.12 , P<.01, effect=-.1471	Partial

## 4.2 Research Question 4 Results and Analysis.

Initial testing of all control variables in both studies failed to achieve any statistical significance in an Analysis of Covariance (ANCOVA). Since no covariates possessed influence in any model, we used ANOVA for all remaining data analysis.

### 4.2.1 Study 1

An ANOVA on purchase intention in scenario 2 provided support for  $H_{1a}$  ( $F(3,227) = 3.24, P < .02$ ). In this instance, the presence of a value enhancement regardless of type at the 5 percent treatment level increased purchase intent significantly higher than the control condition ( $M=3.66$   $SD=.95$  versus  $M=3.0$   $SD=1.08$ ). More clearly, a menu of benefits and an equivalent price reduction valued at \$700 were equally successful at enticing consumers to purchase the new vehicle. While not significantly different, when examining the data more closely, we find that at the 5 percent treatment level a menu of benefits enticed purchase intention slightly greater than the equivalent price reduction ( $M=3.70$   $SD=.94$  versus  $M=3.61$   $SD=.96$ ). Like price reductions, this reveals that a menu of benefits can be a potent promotional tool. In the context of car dealerships, a promotional benefit such as an enhanced warranty effectively locks a consumer in to a longer after sales service relationship measured in either time or vehicle mileage. At the least that relationship should extend through the duration of the warranty. However, if the dealership effectively manages the association with the customer, it could extend that service connection much further. This equates to more after sales parts and service support that generates 44 percent of gross profits for the dealership (Reed 2013). Other potential benefits such as: longer life tires, free tire rotation and balance, free oil changes, etc., could produce the same effect with the inclusion of a courtesy vehicle inspection program designed to meet all the customer's needs, i.e. routine, non-routine and other preventative maintenance with the customers permission. Thus, while the dealership forfeits an upfront cost to enhance the deal for



the consumer, it generates the immediate sale and could potentially enhance profits in the long run through extended service and parts transactions. In other words, this type of benefit-oriented promotion could provide a source of competitive advantage for the dealership. Table 21 highlights some other interesting characteristics.

Table 21

*Consumer Preferences*

Trt Level	Prefer benefit	Prefer price reduction	Top 2 value benefits	Critical purchase?
1%	27	34	After sales spt/Extended Warranty	30 Yes / 14 No
3%	20	23	High mileage tires/Extended Warranty	33 Yes / 10 No
5%	20	21	High mileage tires/Extended Warranty	31 yes / 10 No
TOTAL	67	78	Overall more people preferred extended warranties	94 Yes / 34 No

Table 21 reports that new vehicle consumers near equally prefer benefits to those that prefer price reductions; regardless of treatment level. These self-reported results coincide with the ANOVA results. Additionally, consumers considered a new car acquisition to be a critical purchase at a nearly 3 to 1 ratio, which appears to support Ostrom and Iacobucci (1995) calculation that consumers may seek benefits for purchases that may be perceived as risky, i.e. quality is difficult to confirm. This finding coincides with the self-reported highest ranked benefit preference for extended warranty enhancements, which reduces uncertainty for consumers when warranties can signal a higher quality product (Boulding & Kirmani 1993).

While no other scenario reproduced similar results, i.e. we found no significance for jacket ( $F(4,337) = 0.87, P>0.48$ ) or vacation purchases ( $F(6,227) = 0.99, P>0.43$ ), we did discover some counter intuitive results in meal purchases shown in Figure 45 ( $F(6,256) = 2.37, P>0.03$ ).

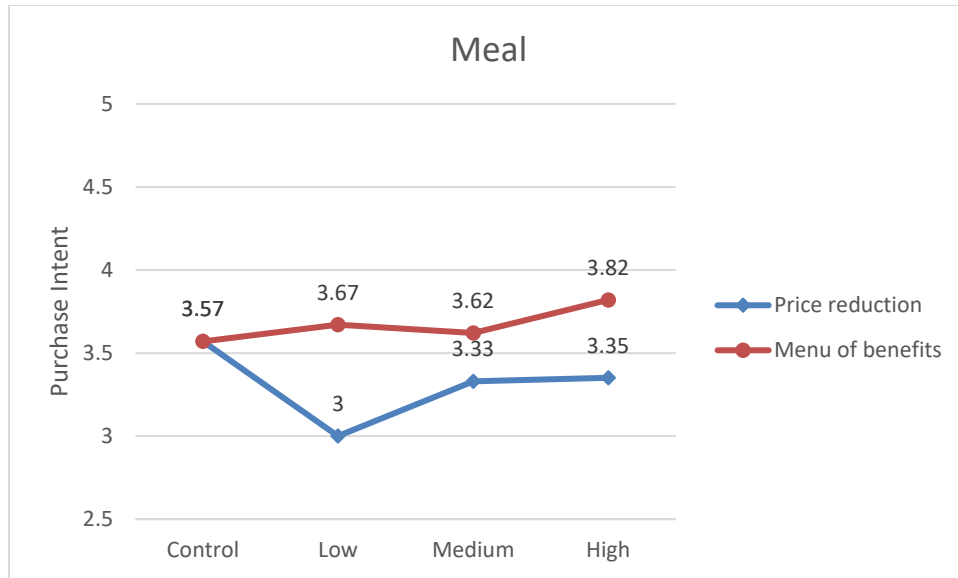


Figure 45. Interaction plot of promotion type and manipulation level for purchase intent.

Our results indicate that at 1 percent (low) price reductions consumers significantly provide a lesser consumer purchase intent compared to the control condition ( $M=3.0$   $SD=1.19$  versus  $M=3.57$   $SD=1.16$ ,  $P<0.05$ ,  $d=.48$ ). We find this counterintuitive since a price reduction, in this instance 60 cents off a \$60 meal, should more closely align consumer and service provider preferences. However, we believe consumers perceive this type of value enhancement as not good enough or even insulting, which would explain the significant decrease in purchase intent between the two groups.

#### 4.2.2 Study 2

An ANOVA on purchase intention in scenario 2 ( $F(5,396) = 4.16$ ,  $P<.001$ ) provided support for  $H_{1b}$  as shown in Figure 46.

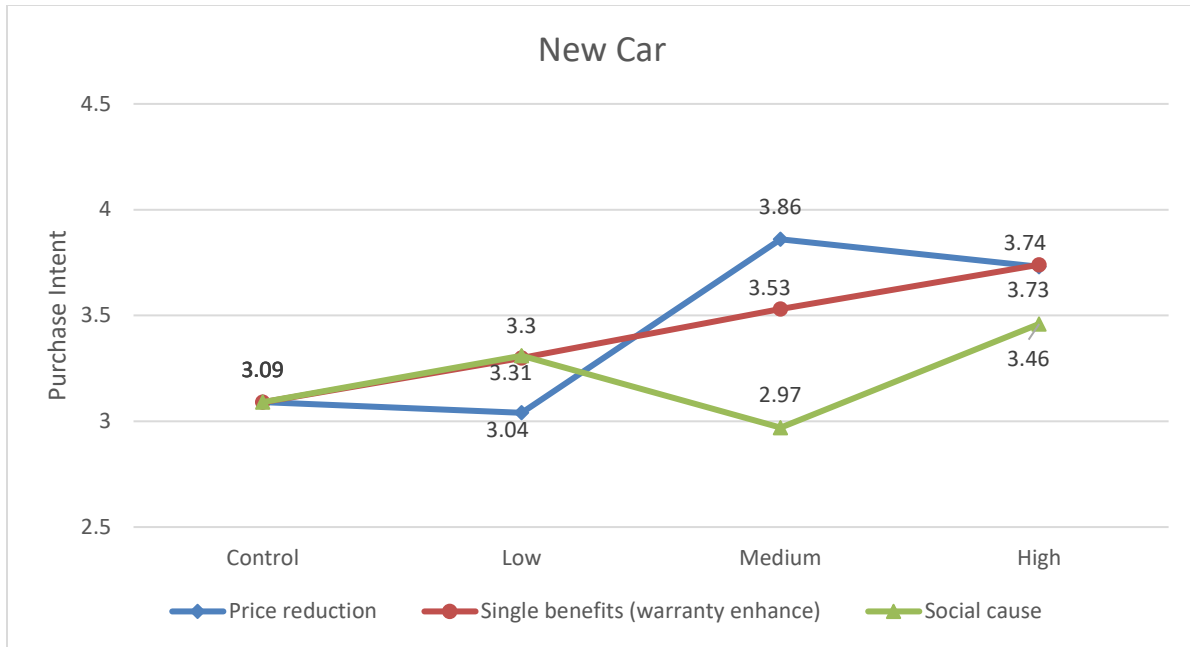


Figure 46. Interaction plot of promotion type and manipulation level for purchase intent.

In scenario 2, i.e. new car purchase, warranty enhancements at the 5 percent (medium) treatment level ( $M=3.53$   $SD=0.97$  versus  $M=3.09$   $SD=1.06$ ,  $P=0.059$ ) attained near significance with consumer purchase intent. In addition, warranty enhancements at the 10 percent (high) treatment level ( $M=3.74$   $SD=1.03$  versus  $M=3.09$   $SD=1.06$ ,  $P<.01$ ,  $d=.62$ ) provided a significant difference in purchase intent when compared to the treatment condition. Similarly, price reductions at the 5 percent (medium) treatment level ( $M=3.86$   $SD=.85$  versus  $M=3.09$   $SD=1.06$ ,  $P<.01$ ,  $d=.81$ ) and 10 percent (high) treatment levels ( $M=3.73$   $SD=.98$  versus  $M=3.09$   $SD=1.06$ ,  $P<.01$ ,  $d=.63$ ) provided a significant difference in purchase intent when compared to the treatment condition. These results strongly suggest that warranty enhancements and price reductions valued at or greater than 5 percent of the purchase price on new vehicles will increase consumer purchase intent. Moreover, benefits at the high treatment level influence purchase intention with nearly the same effect size as an equivalent price reduction ( $d=.62$  versus  $d=.63$ ). Interestingly, dealership

social cause donations at the 10 percent treatment level (M=3.46 SD=0.83 versus M=3.09 SD=1.06, P=.09) were near significant.

An ANOVA on purchase intention in scenario 3 ( $F(9,376) = 3.65, P < .001$ ) provided support for  $H_{1b}$  as shown in Figure 47.



Figure 47. Interaction plot of promotion type and manipulation level for purchase intent.

In scenario 3, i.e. meal purchase, complementary desserts at the 1 percent (low) (M=3.93 SD=.95 versus M=3.38 SD=1.06,  $P < .01, d = .54$ ) and 10 percent (high) (M=4.07 SD=1.06 versus M=3.38 SD=1.06,  $P < .01, d = .65$ ) treatment levels provided a significant difference in purchase intent when compared to the treatment condition. In addition, a price reduction at the 5 percent (medium) treatment level (M=3.75 SD=0.83 versus M=3.38 SD=1.06,  $P = .09$ ) provided near significance on purchase intent. Price reductions at the 10 percent (high) treatment level (M=4.09 SD=.73 versus M=3.38 SD=1.06,  $P < .001, d = .78$ ) yielded a significant difference in purchase intent when compared to the treatment condition. These results depict the importance

of offering singular benefits in the form of complementary desserts and price reductions to increasing consumer purchase intent within the context of restaurant meal purchases. Moreover, benefits influence purchase intention with a similar effect size as an equivalent price reduction ( $d=.65$  versus  $d=.78$ ).

An ANOVA on purchase intention in both scenarios 2 and 3 provided full support for H<sub>2</sub>. More broadly, not once in any of our experimental scenarios did a service provider donation to a social cause of choice significantly influence consumer purchase intent. Ranges in social cause donations across all scenarios varied from 60 cents at the lowest (meal purchase) to \$1,400 at the highest (new car purchase). This finding reinforces RCT in that consumers are self-interested and seek to primarily maximize their benefits as it relates to decisions in exchange. Finally, this finding provides some support towards Arora and Henderson (2007) 15 cent threshold for enticing charitable donations.

A point biserial correlation conducted in scenario 3, i.e. a meal purchase, provided support for H<sub>3</sub>. In scenario 3, low narcissistic consumers significantly chose service provider donations to a menu of social causes ( $-.150, P<.05$ ). These results show that while social cause donations do not significantly increase purchase intention, money can still be generated for social causes in absence of any public accountability, i.e. public self-image enhancement. Thus, low narcissistic consumers could be targeted by services providers to seek social cause donations as a promotional option. However, while we discovered a significant relationship between the two constructs, the correlation is weak. Consequently, this finding should not suggest that low narcissistic consumers will always donate to social causes as there are clearly other factors that influence that decision which requires further investigation beyond the scope of this research.

Across both studies, benefits provided mixed results but overall a moderate influence in increasing consumer purchase intention across all scenarios. It appears that benefits, regardless of presentation (menu/singular), do not entice consumers to purchase light weight jackets or Hawaiian vacations for four. For clothing or light weight jackets ( $F(5,381) = 2.71, P < 0.001$ ), it appears that consumers may be conditioned to expect a sizable price promotion to increase purchase intent as revealed in study 2, scenario 1 (Schlossberg 2016). Here, the treatment condition at a 10 percent price reduction ( $M=3.54$   $SD=.92$  versus  $M=2.86$   $SD=1.04, P < .001, d=.73$ ) significantly influenced purchase intention. However, a similar price reduction at a 1 percent treatment level ( $M=2.34$   $SD=.98$  versus  $M=2.86$   $SD=1.04, P < .05, d=.58$ ) significantly decreased consumer purchase intention, which we believe resulted from consumer frustration as shown in Figure 47.

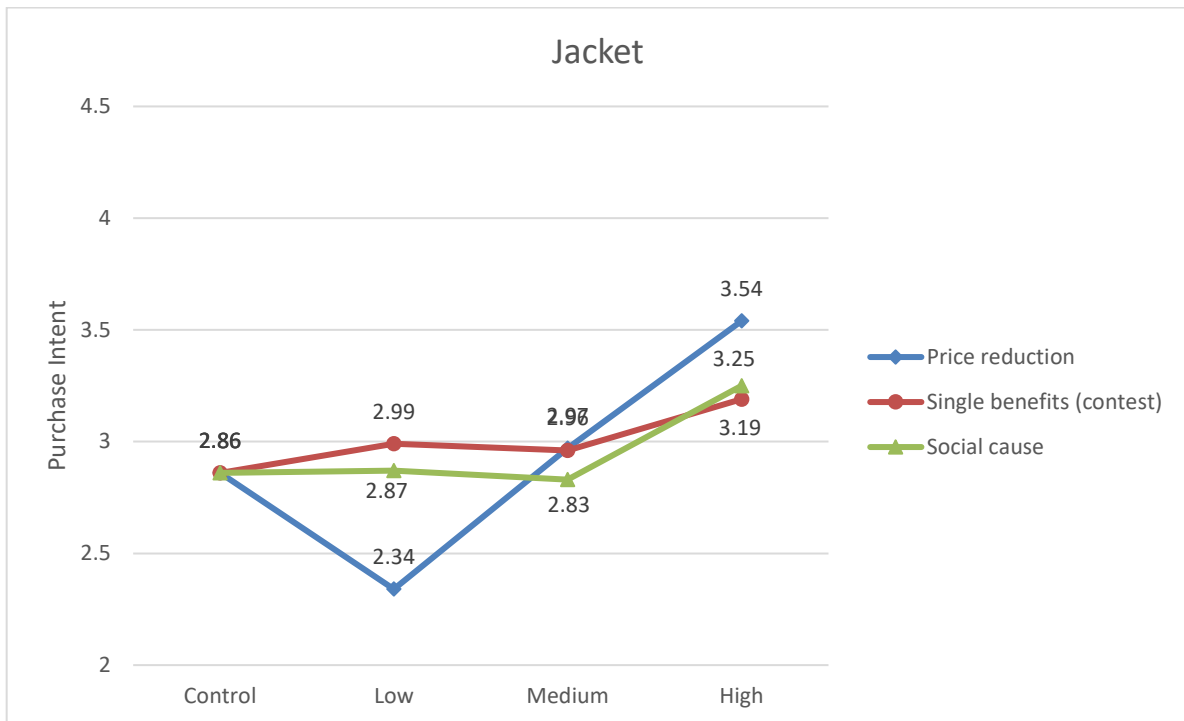


Figure 48. Interaction plot of promotion type and manipulation level for purchase intent.

This is a repeat finding from study 1 (scenario 3). For vacations, it appears that consumers either want to go or they don't and value enhancements at or below 10 percent of the purchase price do

not entice the sale ( $F(5,361) = 1.18, P > 0.30$ ). Song et al. (2010) reported that tourism is a luxury demand where consumer income and total price of goods and service related to the destination are powerful determinants to demand. This suggests, in the context of vacation purchases, that large price reductions would be a more effective alternative over equivalent benefit enhancements to entice consumer purchase intention.

## CHAPTER 5

### SUMMARY AND CONCLUSION

#### 5.1 Research Question 3 Summary and Conclusion

This dissertation satisfied this research question by adopting the Lusch et al. (2007b) framework in conjunction with the transaction cost construct to empirically test its influence on value co-production within a healthcare delivery context. As the results portray, the hypothesized model provided great explanatory power for those characteristics and behaviors that contribute to the patient's propensity to co-produce, i.e. R Square = 0.71.

##### 5.1.1 Managerial Implications

While not all Lusch et al. (2007b) constructs tested statistically significant within healthcare delivery, other contexts may prove otherwise where aspects like expertise and risk taking intuitively appear to be required, e.g. do-it-yourself projects and repairs. Moreover, this dissertation measured value co-productions impact on satisfaction and repurchase intent. Consequently, this study showed that value co-production could provide a source of competitive advantage for healthcare service providers. Thus, healthcare providers who focus on efforts to effectively co-produce should experience higher patient satisfaction and more patient returns, which should lead to enhanced relationships and potentially greater patient outcomes. Practically, healthcare providers could apply the results of this study to educate patients on the appropriate behaviors and characteristics required to enhance healthcare interactions and total value generation, e.g. a pamphlet that doctors provide to patients in conjunction with a short briefing or deliberate post-interaction feedback sessions. To that end, it may also provide a valuable educational source that healthcare service providers could instructionally leverage on how to appropriately interact with patients. Since training areas such as bedside manner are already a requisite in medical education this finding as a minimum reinforces that training and



mindset (Washington 2018; Sloat 2017). However, it may also be robust that training, which could help achieve a greater outcome.

In this context, medical doctors not only need to acquire the vast technical and analytical skills but also possess the soft human interactional skills to effectively co-produce value. These requirements place a tremendous amount of demand on this profession. Thus, while the future may hold more opportunities for automation and artificial intelligence, its influence on value creation should be carefully examined and applied. While analytics and technology can provide critical aspects to areas such as health care, caution should be taken to substitute these capabilities with human interaction (Hernandez 2014). This aspect of value creation also closely relates to Maslow's hierarchy of needs where humans need to feel a sense of belonging. Future research should investigate this aspect of the hierarchy in relation to health care providers.

#### 5.1.2 Theoretical Implications

Theoretically this study reveals the importance of TCE as an aspect of value creation. Thus, since the transaction cost construct was a significant predictor of value coproduction in the presence of other constructs, and vice versa, it is clearly not the only important factor in optimizing value creation. More clearly, there is more to value coproduction than transaction cost economization, which primarily stems from how the doctor presents himself towards the patient, i.e. how effectively he or she enables communication with the patient. Equally important is how the patient interacts with the medical provider. For instance, does the patient want to control his or her health outcomes and display the appropriate behavior that conveys that desire to the medical provider? Moreover, these characteristics and traits presented as constructs in our hypothetical model may not be intrinsic qualities for each patient, but they could be gained or improved upon through appropriate coaching and literature review. Lastly, this study applies

SDT to explain value co-production. This depicts the explanatory power of SDT towards value creation efforts in the patient-doctor dyad. Future research should seek to advance SDT within other contexts and value creation processes, e.g. co-creation; thereby extending the theory further within the paradigm. Finally, this study develops and purifies several original scales for employment in other contexts.

### 5.1.3 Limitations

Several limitations impacted this study. First, this study did not include children, an important population within healthcare delivery. Thus, its findings should not be generalized to this population of interest. Next, this study only viewed value co-production from one side of the interaction. More clearly, this study did not incorporate inputs from medical providers. Future research should seek to target this population to enhance the credibility of this study's results.

## 5.2 Research Question 4 Summary and Conclusion

This dissertation addressed this research question by executing a series of experimental surveys. We found support for a menu of benefits in one of four experimental scenarios in study 1, scenario 2, which suggests the concept needs refinement. Throughout study 1, equivalent price reductions garnered similar results, except in scenario 3 where a 1 percent price reduction decreased consumer purchase intent. When comparing scenario 2 between studies 1 and 2, we find the non-significant 5 percent singular benefit to generate lower purchase intent to the significant 5 percent menu of benefits ( $M=3.31$   $SD=1.07$  versus  $M=3.70$   $SD=.94$ ). Thus, in this specific context, a menu of benefits proved to be more effective than a singular offered benefit at the five percent treatment level. However, this was not the case for the remainder of our analysis.

When juxtaposing study 1 with results from study 2, the lack of overall statistical significance in study 1 suggest that perhaps consumers become overwhelmed with too much

choice and lose interest in the sale. Iyengar and Lepper (2000) explained that too many choices can leave consumers with the burden of distinguishing between good and bad decisions.

Unfortunately, the scholars explained that choice overload can lead to deactivation in consumer interest. It appears that we have unintentionally duplicated this finding. Consequently, we suggest future research focus on only 2 or at most 3 potential benefits aggregated as a menu for consumers to consider based upon ranked consumer preference data. Accordingly, by further narrowing choices, consumers may be more apt to purchase since more than one highly preferable choice could more closely align preferences. Otherwise, singular benefit offerings showed more potential for application across multiple scenarios, except for clothing and vacations where no benefit offering regardless of type, i.e. menu or singular, enhanced purchase intent. The clothing, i.e. lightweight jacket, results suggests that consumers may be conditioned to seek large price discounts (Schlossberg 2016). It also suggests that consumers either want to go on a specific vacation, e.g. Hawaii, or they do not; no value enhancement, i.e. benefit or price reduction, at our denominations significantly persuaded them to purchase the vacation package.

### 5.2.1 Managerial Implications

Managerially, this research reinforces the importance of benefits as a promotional tool regardless of presentation, i.e. either singular or plural. However, we suggest that these findings be generalized with caution due to the variance in consumer preferences across and within scenarios. Thus, each context requires the service provider conduct some purposeful exploration to determine ranked consumer preferences as it relates to benefit-oriented promotions. While this research did not find significance for social cause donations to entice consumer purchase intent, retailers may continue to conduct this promotional practice to enhance image or collect donations through low charitable denominations. Moreover, our results support Arora and

Henderson (2007) findings that social cause donations valued greater than 15 cents fail to achieve significant influence with consumers. However, we found across all our scenarios and studies that consumers did infrequently select social cause donations even in denominations as high as \$1,400.

Despite our efforts to explore any potential relationship between two near priced product and service scenarios, we found no conclusive difference between pairs. However, future research should investigate the moderating role of either brand loyalty or brand awareness. Perhaps consumers that are either loyal or familiar with a brand of product or service would be able to reveal some type of relationship between near priced offerings. Future research should also seek to investigate the mediating role of perceived value on benefit enhancements and purchase intent. However, the challenge will be to incorporate the appropriate scale and which dimensions it should incorporate, e.g. quality, price, reputation, etc. To that regard, future research should also seek to uncover a perceived value scale similar to the narcissistic personality inventory scale which incorporates 7 dimensions (Raskin & Terry 1988). Such a strategy, while potentially burdensome on the respondent, covers as many measurable dimensions of value that are beneficial to the study of interest. As a result, the researcher could gain a more accurate assessment of total value.

Overall, we advocate that service providers should continue to leverage benefits as an attractive promotional tool to enhance sales where appropriate. However, the benefits offered require thoughtful selection, i.e. through ranked consumer preferences. Beyond enhanced immediate sales, promotional benefits could also offer enhanced long-term profits and positively impact consumer loyalty; a consequence that price promotions have shown to erode (Jedidi et al. 1999; Mela et al. 1997; Jones 1990). Recently, Reid et al. (2015) suggested that price promotion

prone shoppers may find interest in benefit-oriented promotions, which could improve brand equity. On the other hand, by comparison, price promotions in the form of discounts may require less immediate calculation and effort for managers, which may make them more attractive. Future research should investigate the long-term effect of benefit related promotions on consumer behavior. For instance, will consumers become conditioned to seek benefit promotions just as they often do for price promotions? Will consumers become benefit-sensitive just as they often become price-sensitive for goods that have frequent price promotions? Addressing these types of benefit promotion research questions could clarify its medium to long-term utility for practitioners.

#### 5.2.2 Theoretical Implications

This research exhibits that consumers are primarily self-interested as it relates to social cause donations. Since none of our scenarios showed a significant result between social cause donations and purchase intentions, we believe this appropriately advances RCT within the context of exchange value creation across four scenarios and two studies.

#### 5.2.3 Limitations

While our research investigated the influence of benefits across four scenarios and two studies, our results should not be generalized across all consumer purchase contexts. Thus, this study illustrates that consumer preferences vary greatly between contexts. Therefore, this study should be referenced to guide other purchasing context experiments.

### 5.3 Dissertation Summary and Conclusion

Broadly speaking, the purpose of this dissertation was to enhance clarity in value and its creation by reviewing its associate literature to untangle and organize multiple scholarly perspectives and interpretations. More specifically, this dissertation successfully addressed four primary research questions thorough a diverse array of methodologies: 1) What are the key

concepts and interrelationships in S-D Logic? 2) What are the dimensions of value and how should they be architected to enhance understanding? 3) How effectively does the Lusch et al. (2007b) framework in conjunction with the transaction cost construct explain co-production within a healthcare delivery context? 4) What influence do a menu of benefits and equivalent price reductions have on consumer purchase intent?

By examining these research questions, we make several compelling contributions to the literature for both academicians and practitioners. This dissertation employed Maslow's hierarchy of needs theory to explicate what value is at the lowest level of abstraction to provide a solid conceptual foundation for future value related discussion and analysis. Then, this dissertation sifted, organized, and presented five primary dimensions of value based upon previous scholarly publications, i.e. nature, perspectives, measures, storage, and creation. In addition, this dissertation developed and explicated a comprehensive conceptual value creation framework from which to ground future debate and theoretical analysis. Finally, this dissertation conducted two empirical studies, derived from this value creation framework that examined value co-production antecedents and benefits (singular/plural) that influence exchange value, i.e. consumer purchase intent. Through this process, these empirical studies extended one of several theories such as TCE, SDT, or RCT. Lastly, each of these empirical studies provide impactful insights that practitioners could immediately leverage to enhance value generation opportunities.

APPENDIX A

S-D LOGIC FUTURE RESEARCH OPPORTUNITIES

<b>Author(s)</b>	<b>Title</b>	<b>Future Research</b>	<b>Journal</b>	<b>Cites</b>
Vargo & Lusch 2008d	Service-dominant logic: continuing the evolution	One particularly intriguing possibility is for S-D logic to provide the philosophical and conceptual foundation for the development of service science, as has been suggested by its primary framers (Maglio and Spohrer in this issue).	Journal of the Academy of Marketing Science	3344
Payne et al. 2008	Managing the co-creation of value	To achieve a more comprehensive view of value co-creation, future research should examine the consumption situations of traditional manufacturing industries which supply tangibles such as cars, computers or beer. For example, BMW's Mini car, manufactured in the UK, is made to order. Most Mini owners have opted to co-create a car to their own unique specification. Today, only two out of every 100 Mini cars are the same. Co-creation opportunities based on ownership issues (e.g., purchase versus leasing or hire of a car) also present an area where research is needed. For example, industrial manufacturing companies, such as Rolls-Royce, are shifting from selling airplane turbines to selling 'power by the hour,' representing a shift from selling products to offering co-created service-oriented packages.	Journal of the Academy of Marketing Science	1751
Vargo et al. 2008	On value and value co-creation: A service systems and service logic perspective	The exploration of value co-creation raises as many questions as it answers. For example: What exactly are the processes involved in value co-creation? How can we measure co-created value and value-in-use? How does information technology influence the ways in which value can be created effectively? What approaches do we need to understand the sociotechnical context of value creation? What are the research methods appropriate for understanding value as an emergent quality? Answering questions such as these will help establish better bases on which to build managerial decision rules. That is, we need to establish the fundamentals of service science and a framework for understanding how service systems operate and interact before we can develop a normative service science for what decision makers of service systems should do (see also Vargo and Lusch, 2008b)	European Management Journal	1588
Lusch et al. 2007a	Competing through service: Insights from service-dominant logic	Future research should strive to test these six factors in differing context to posture it as a theory of co-production/co-creation of value.	Journal of Retailing	1190
Spohrer et al. 2007	Steps toward a science of service systems	A science of service can provide a foundation for creating lasting improvements to service systems. Service science aims to understand and catalog service systems and to apply that understanding to advancing our ability to design, improve, and scale service systems for practical business and societal purposes.	Computer	1124
Chesbrough & Spohrer 2006	A research manifesto for service science	This liberation of knowledge from artifacts and organizations, enabled by the rapid and continuing advances in sensors and ICT as well as legal changes (for example, the Sarbanes-Oxley Act), informs the central problems in service science. How can this information of the capabilities of artifacts and organizations be	Communications of the ACM	1059



Author(s)	Title	Future Research	Journal	Cites
		recombined and accelerated in its velocity to create value? How can it be integrated in context to create new and valued services and solutions to customer problems? How can the tacit knowledge of parties in the exchange be managed, so as to create value out of that exchange? How do people and organizations negotiate the creation of intangible assets that produce value for both? In sum, we need a theory of value co-creation [105].		
Edvardsson et al. 2005	Service portraits in service research: a critical review	Considering service as a perspective on customer relationships may form a fruitful approach for future research.	International Journal of Service Industry Management	740
Vargo & Lusch 2008c	From goods to service(s): Divergences and convergences of logics	We believe that S-D logic can serve as a foundation for a sounder theory of markets and marketing that can, in turn, reduce the divide between academic and applied marketing and thus inform marketing practitioners in their desire to develop a true service focus.	Industrial Marketing Management	717
Lusch & Vargo 2014	The Service-dominant logic of marketing: dialog, debate and directions; chapter 10, co-production of services	The model should be tested, e.g. importance of age, cultural factors, income, etc. and each factors relationship with co-production.	Book	701
Lusch et al. 2010	Service, value networks and learning	(a) What do the marketing and supply chain managers do to sense and learn from each other, from suppliers and customers? (b) What is the effect of learning through quantitative research versus qualitative research? (c) How do marketing and supply chain professionals identify their deeply held assumptions about each other, suppliers, and customers and how can they be suspended to stimulate learning? (d) What is the role of intermediaries and exchanges in aiding or hindering sensing and learning? (e) How do the value network density, breadth, and depth influence information sharing? (f) If tacit knowledge is the most critical for competitive advantage and largely resides in individuals how do we identify which individuals have this critical knowledge and how do we retain these people in the organization or how does a firm support formation of tacit knowledge clusters (in and around the value network) and partner with them as needed to compete?	Journal of the Academy of Marketing Science	620
Spohrer & Maglio 2008	The emergence of service science: Toward systematic service innovations to accelerate co-creation of value	The growth of the service sector of the economy is truly a wonder of human history, on par with the agriculture revolution and the industrial revolution. But is it too broad and diverse to be a suitable area of scientific study? Or is it possible to understand the evolution of service systems in terms of a few simple principles that provide powerful frameworks to explore core research questions? For example, can service systems be understood in terms of specialization to create value networks and the cost of allocating knowledge among high talent, high technology, and superior environment portions of the system? Or can they be understood in	Production and Operations Management	572

Author(s)	Title	Future Research	Journal	Cites
		terms of the unequal evolution of know-how in different industry sectors (Nelson, 2003). Will new agent-based simulation tools reveal the secrets of service system evolution, in terms of industry evolution and organizational change? Will greater knowledge of services systems lead to a more disciplined and systematic approach to service innovation.		
Etgar 2008a	A descriptive model of the consumer co-production process	Future research should extend this model by integrating additional internal mental and emotional consumer processes into the proposed framework. Future research should determine empirically the relative importance of each of the various preconditions presented in the first stage, or of the various motivational drivers that induce firms to engage in co-production presented in the second stage	Journal of the Academy of Marketing Science	568
Merz et al. 2009	The evolving brand logic: A service-dominant logic perspective	Another promising area for future research is the development of brand value measures that capture the essence of the brand value co-creation notion (i.e., process orientation). As mentioned, the existing measures of brand value have evolved from a generally firm/goods-based perspective to a more customer-based perspective (Keller and Lehmann 2006; Leone et al. 2006). However, these scholarly studies are mostly output-oriented. The fact that some customer-based mathematical studies have taken into consideration "brand loyalty" as one component of an overall brand value measure signifies that relationships, and hence process orientation, have been acknowledged to be important. Further research, however, is needed that adopts a purely process-oriented approach to assessing brand value. Further research might also explore ways to operationalize and capture the long-term value of a brand	Journal of the Academy of Marketing Science	408
Grönroos 2011a	A service perspective on business relationships: The value creation, interaction and marketing interface	The adoption of service marketing concepts and models in business relationships need further research, and further refinement of such concepts to fit these contexts is required. Also research into new service logic-based business models is needed. Moreover, because a firm can create value for itself from a business relationship only if it supports its customer's value creation, the process of reciprocal value creation should be studied, and corresponding metrics for measuring such value creation developed.	Industrial Marketing Management	406
Dong et al. 2007	The effects of customer participation in co-created service recovery	Future research should explore the potential antecedents that influence a customer's willingness to participate in service recovery, such as individual difference and situational variables	Journal of the Academy of Marketing Science	349
Heinonen et al. 2010	A customer-dominant logic	Companies and researchers need to revise their tools and approaches for understanding customers. Traditionally, understanding customers has been based on studies of customers' perceptions and thoughts about offerings. Currently, in line with the academic	Journal of Service Management	348

Author(s)	Title	Future Research	Journal	Cites
		focus on co-creation, some companies are trying to find out how customers use and experience offerings in their own context. In contrast, we argue that companies should try to discover the potential, unrealized value of a service by learning what processes customers are involved with in their own context, and what different types of input, both physical and mental, they would need to support those processes. This means setting out from understanding of customers' activities, and then supporting those activities, rather than starting from products/services and then identifying the activities where a company can fit in. In other words, companies need to do more in-depth ethnographical studies.		
Maglio et al. 2009	The service system is the basic abstraction of service science	Economic institutions are service systems, and unifying the ISPAR (Interact-Serve-Propose-Agree-Realize) model with transaction cost economics is an area for future research.	Information Systems and e-Business Management	347
Gummesson 2008	Extending the service-dominant logic: From customer centricity to balanced centricity	But is balanced centricity a realistic objective or is it yet another professorial whim? I do not have the answer but I am convinced that if we keep fragmenting marketing and other business functions and duck complexity, context and dynamics, we will not move ahead.	Journal of the Academy of Marketing Science	313
Chandler & Vargo 2011	Contextualization and value-in-context: How context frames exchange	Further research is needed to distinguish empirically among these levels and layers, and also to relate them more explicitly to one another.	Marketing Theory	292
Ordanini & Parasuraman 2011	Service innovation viewed through a service-dominant logic lens: A conceptual framework and empirical analysis	Developing and testing more comprehensive models of service innovation is a potentially fruitful avenue for future research. Also needed is more in-depth qualitative and empirical work to uncover the reasons and mechanisms underlying the current study's findings. Testing the model in other contexts would also be valuable. Research aimed at better understanding the nature and extent of the interplay between customer and business-partner collaboration, and between innovation volume and radicalness, can enrich extant knowledge about the service-innovation process. Moreover, research is needed to explore the associations between service innovation outcomes and other performance measures (e.g., cash flows and stock market value). Also needed are studies employing true longitudinal designs to investigate the long-term effects of service innovation on a firm's future performance, as well as to investigate whether—and if so to what extent and how—a firm's past performance results influence its service innovation activity and outcomes in the future.	Journal of Service Research	290
Peñaloza & Venkatesh 2006	Further evolving the new dominant logic of marketing: from services to the social construction of markets	Appropriating consumers' efforts producing value and meaning in market offerings is no doubt desirable to firms, but here we encourage researchers to explore more fully consumers' subjective understandings and agenic practices regarding their participation in the 'co-creation' of meaning and value, and consider who	Marketing Theory	275

Author(s)	Title	Future Research	Journal	Cites
		benefits from it, and how such appropriations impact community developments.		
Madhavaram & Hunt 2008	The service-dominant logic and a hierarchy of operant resources: developing masterful operant resources and implications for marketing strategy	The proposed hierarchy of operant resources and the notion of masterfully developed operant resources can provide foundations for future research in operant resources that are relevant to marketing strategy. Other opportunities for research could potentially involve answering questions such as: how do firms go up the hierarchy of (marketing) resources, how can information technology enable firms go up the hierarchy of (marketing) resources, and what characteristics of the firms enable them to develop masterful operant resources?	Journal of the Academy of Marketing Science	255
Sandström et al. 2008	Value in use through service experience	The proposed framework needs empirical testing. In addition, the authors suggest research that focuses on the dialogue and the co-creation parts of the service development process. How do managers deal with the heterogeneous demands of their customer base?	Managing Service Quality	247
Michel et al. 2008a	An expanded and strategic view of discontinuous innovations: deploying a service-dominant logic	Future research on innovation should investigate the ways in which partners in value constellations collaborate synergistically to create networks of operant resources. How do service providers combine such resources to the benefit of the consumer? How does customer co-creation apply operant resources to create value and experiences?	Journal of the Academy of Marketing Science	235
Gummesson 2002	Relationship marketing and a new economy: It's time for de-programming	There is need for more healthy and vitamin-rich feeding of the marketing mind. We need marketing theory, good theory, essential for scholars and practicing managers alike. There is currently no general theory of marketing in existence, just reminiscences of outdated microeconomics and fragmented models or concepts, often called theories but so out of management context that they do not survive beyond the shelter of an academic ivory tower.	Journal of Services Marketing	208
Brodie et al. 2006	The service brand and the service-dominant logic: missing fundamental premise or the need for stronger theory?	Further attention needs to be given to integrating the concepts of brand equity, customer equity and network equity into a theory of marketplace equity. This integrated 'middle range' theory would draw on higher level or more general theories to provide better understanding about the nature of intangible assets including networks, customers and brands, and how these marketing assets and associated processes lead to the co-creation of market value. In doing so it would provide a balance between the 'outside-in' customer-centric view advocated by Rust, Zeithaml and Lemon (2000) and the 'inside-out' service brand view.	Marketing Theory	208
Yi & Gong 2013	Customer value co-creation behavior: Scale development and validation	Future work should consider the applicability of the scale across different countries and cultures. Indeed, the increasing globalization of customer markets provides a compelling reason for exploring the influence of culture on customer value co-creation behavior. Future research must validate the dimensional structure of	Journal of Business Research	187

Author(s)	Title	Future Research	Journal	Cites
Ballantyne et al. 2011	Value propositions as communication practice: Taking a wider view	customer value co-creation behavior across distinct cultures. There is a need for more detailed study of the adoption and use of value propositions within organizations. Case study research and action research strategies could explore co-creational approaches to proposition development over time where there is likely to be an emergent value component. The literature does not emphasize enough importance of provisionally developing and crafting value propositions as reciprocal promises of value. There is also a need to examine market segment-specific value propositions. Finally, there is a need to investigate how reciprocal value propositions might enable development of a communicative interaction platform between a firm and its stakeholder network to access knowledge about evolving business conditions, opportunities and constraints.	Industrial Marketing Management	181
Gummeson et al. 2010	Transitioning from service management to service-dominant logic	We encourage work that deals with multiple levels of aggregation on business, customer, government, political, and economic macro levels. All levels interact and influence each other. Seeking to understand the market and marketing from a holistic and process perspective is what S-D logic uniquely offers the management disciplines and economics. We suggest concentrating on theory improvements, incremental improvements as well as foundational development. Constantly evaluate mainstream definitions, categories, and concepts in relation to those offered by new theory. Constructively focus on continuous theory generation through an open source code, mass collaboration, and free co-creation between researchers. Better theory will replace previous theory quite naturally. The overriding criteria should be validity and relevance for contemporary and future business and society.	International Journal of Quality and Service Sciences	175
Esper et al. 2010	Demand and supply integration: a conceptual framework of value creation through knowledge management	We describe this kind of two-step philosophical shift for five key areas in Table 1 (i.e., shifts away from product focus, product differentiation, transactions, stand-alone competition, and economies of scale). Future research should reveal how, in what contexts, at what rate, at what cost, and with what benefits these shifts take place.	Journal of the Academy of Marketing Science	171
Nenonen & Storbacka 2010	Business model design: conceptualizing networked value co-creation	The applicability of the model should be investigated in various contexts to determine its validity and generalizability.	International Journal of Quality and Service Sciences	167
Frow & Payne 2011	A stakeholder perspective of the value proposition concept	First, there is a need for both qualitative and quantitative data to support normative perspectives on VPs. Second, our proposal that VPs serve as a stakeholder alignment mechanism requires further investigation. Third, an interesting area for research is investigating instances of misalignment of VPs. Fourth, VP research could explore a broad range of value co-creation opportunities.	European Journal of Marketing	164

Author(s)	Title	Future Research	Journal	Cites
Abela & Murphy 2008	Marketing with integrity: ethics and the service-dominant logic for marketing	The author's provide 7 areas for future research opportunities that could advance ethics, metrics, measurement of intangibles, business risk, social impacts and S-D Logic.	Journal of the Academy of Marketing Science	137
Karpen et al. 2012.	Linking service-dominant logic and strategic business practice: A conceptual model of a service-dominant orientation	The authors emphasize that it may be difficult for managers to optimize the six capabilities all at once, given that the capabilities are likely to have different organizational antecedents. Therefore, managers should consider prioritizing investments in a few capabilities, while achieving a minimum capability level for the others. Which capabilities deserve to be prioritized under which circumstances requires future research to clarify this important managerial issue. More research is also needed to better understand the organizational antecedents and outcomes of the S-D orientation capabilities so that managers know what is required from them and their organization to implement an S-D orientation and to better understand potential benefits.	Journal of Service Research	137
Kindström et al. 2013	Enabling service innovation: a dynamic capabilities approach	Though the study reported here was an exploratory attempt to identify key microfoundations, questions arise regarding the methods by which they are generated and implemented. As a logical extension of the current research, investigation of the actual process of generation and the sequence of development should yield results with interesting implications for both research and practice. Further research might also usefully evaluate the performance of the identified microfoundations and assess the effect on overall corporate performance. Such an analysis would imply a greater focus on the technical fitness of the dynamic capabilities.	Journal of Business Research	137
Lusch 2011	Reframing supply chain management: A service-dominant logic perspective	How does one integrate the customer into the supply chain or, stated alternatively, how does one move from viewing the customer as the destination of supply (a supply to orientation) to someone to co-create value with (a marketing with orientation)? How does one measure firm performance but also system performance? How does one deal with conflicting value propositions in the ecosystem? What role does competition versus cooperation play in the service ecosystem? What is the role of public policy in global service ecosystems? Can one govern or manage a service ecosystem? What is the most effective way to bring suppliers and customers into the innovation process?	Journal of Supply Chain Management	135
Gummeson & Mele 2010	Marketing as value co-creation through network interaction and resource integration	The five propositions positioned in this paper could be empirically tested. Moreover, future research should be directed in the pursuit of grand theory.	Journal of Business Market Management	126
Edvardsson et al. 2008	Initiation of business relationships in service-dominant settings	We suggest a more in-depth study of the statuses, converters, and inhibitors identified in this explorative study in two service contexts. We should at the same time be open to and actively search for other converters and inhibitors and carry out empirical research in	Industrial Marketing Management	119

Author(s)	Title	Future Research	Journal	Cites
		other business-to-business service contexts but especially in industrial companies which have converted to adopting service logic. We also suggest research on the role of leaders and leadership in the relationship initiation process.		
Vargo et al. 2010	Advancing service science with service dominant logic	Moreover, for S-D logic to aid in the future advancement of service science the language used to discuss S-D logic and service science must be more clearly defined and agreed upon.	Handbook of Service Science	118
Kowalkowski 2011	Dynamics of value propositions: insights from service-dominant logic	Empirical research should test the four principles. Principle 1. Value propositions with an emphasis on value-in-use are more likely to address the needs of multiple evaluators than those with an emphasis on value-in-exchange. Principle 2. The relative emphasis on value-in-use and value-in-exchange will normally change over time during the sales process. Principle 3. The discrepancy between value-in-exchange and value-in-use is lower for offerings in which value-in-exchange manifests itself as continuous financial feedback linked to value creation for customers than for other types of offerings. Principle 4. The closer the relationship between customer and provider, the more the emphasis of the value proposition can be placed on value-in-use.	European Journal of Marketing	118
Flint 2006	Innovation, symbolic interaction and customer valuing: thoughts stemming from a service-dominant logic of marketing	Beyond methodology, there is significant opportunity to expand customer value research and specifically advancement of our understanding of the customer valuing phenomenon. The dynamic social interchange orientation of the symbolic interactionism perspective coupled with qualitative research methods holds the potential to provide unique insights to the dynamic, morphing nature of customer value perceptions. As discussed, innovation and innovation opportunities appear in a variety of places within customer experiences. Market researchers need to broaden their notion of innovation to understand innovation in all its forms as it emerges from and is used within a complex dance of social interaction.	Marketing Theory	114
Chathoth et al. 2013	Co-production versus co-creation: A process based continuum in the hotel service context	First, research should explore the process of co-production and co-creation from a strategic perspective and evaluate the influence of different organizational variables, including resource development, leadership, learning and the strategic orientations of firms (entrepreneurial, market and technology) on the process of co-creation. Second, future research could empirically explore the potential challenges and constraints associated with reorienting hospitality organizations and intra-firm service offerings from co-production to co-creation. This process would enable a cross-sector analysis and offer interesting insights into the current state of the hospitality industry in terms of the adoption of a service-dominant logic. Third, future research could also explore how value co-destruction occurs. Specifically, it	International Journal of Hospitality Management	105

Author(s)	Title	Future Research	Journal	Cites
		should explore the effect of: (1) failures in knowledge management and organizational learning, (2) lack of leadership support and commitment to service co-creation, and (3) lack of organizational competences and resources. Another promising area for future research is the use of technology by hospitality organizations in the co-creation of services. This appears to be a key area given that technological advancements and a service efficiency agenda require the adoption of technology for the efficient production and delivery of services in the hospitality industry.		
Flint & Mentzer 2006	Striving for integrated value chain management given a service-dominant logic for marketing	Research needs to develop a much deeper understanding of valuing co-production related phenomena.	Book	105
Spohrer et al. 2008	Service science and service-dominant logic	So two fundamental questions that both service science and S-D Logic must more completely address, if in fact there is to be greater alignment between the two communities, are: What is the value of these worldviews? What is the scope of these emerging areas of study?	Otago Forum	103
Grönroos 2012	Conceptualizing value co-creation: A journey to the 1970s and back to the future	The model of value for the firm emphasizes that customer feedback that emerges from the service encounter does not automatically materialize as value for the service provider. A preparedness to use customer feedback must exist, and an effective internal support system is required, which manages to process the input and turn it into actionable information. The model indicates the importance of managing such a support system, which should trigger further research into this mediating phenomenon in the use of customer feedback.	Journal of Marketing Management	100
Arnould 2008	Service-dominant logic and resource theory	Each opportunity (9 total) mentioned could be an area for future research	Journal of the Academy of Marketing Science	95



APPENDIX B  
SURVEY INSTRUMENT



Q1 What is your age?

- 18 to 24 years (1)
  - 25 to 34 years (2)
  - 35 to 44 years (3)
  - 45 to 54 years (4)
  - 55 to 64 years (5)
  - 65 years and over (6)
- 



Q2 What is the highest level of education you have completed?

- High School / GED (1)
  - Some College (2)
  - 2-year College Degree (3)
  - 4-year College Degree (4)
  - Masters Degree (5)
  - Doctoral Degree (6)
- 

Q3 How would you characterize your employment status?

- Apprentice (1)
  - Technician (2)
  - Middle Management (3)
  - Senior or executive management (4)
  - Retired (5)
  - N/A (7)
- 



Q4 What is your race?

- White/Caucasian (1)
  - African American (2)
  - Hispanic (3)
  - Asian (4)
  - Native American (5)
  - Pacific Islander (6)
  - Other (7)
- 



Q5 Please indicate your current family structure.

- Single without children (1)
  - Single with children (2)
  - Married without children (3)
  - Married with children (4)
  - Other (5)
- 



Q6 What is your gender?

- Male (1)
  - Female (2)
- 

Q7 Do you habitually smoke cigarettes?

- Yes (1)
  - No (2)
- 

Q8 Over the span of your life, estimate the total number of doctor visits you have had.

- 1 to 5 (1)
  - 6 to 10 (2)
  - 11-20 (3)
  - 21-30 (4)
  - 31-40 (5)
  - 41-50 (6)
  - Greater than 51 (7)
- 



Q9 What is your combined annual household income?

- Less than 30,000 (1)
  - Between 30,000 and 50,000 (2)
  - Between 50,001 and 100,000 (3)
  - Between 100,001 and 150,000 (4)
  - Between 150,001 and 200,000 (5)
  - Greater than 200,001 (6)
-

Q10 What is your total \$ wealth, i.e. savings, investments, real estate, assets, etc.?

- Less than 15,000 (1)
- Between 15,000 and 30,000 (2)
- Between 30,001 and 50,000 (3)
- Between 50,001 and 100,000 (4)
- Between 100,001 and 150,000 (5)
- Between 150,001 and 200,000 (6)
- Between 200,001 and 300,000 (7)
- Between 300,001 and 400,000 (8)
- Between 400,001 and 500,000 (9)
- Between 500,001 and 600,000 (10)
- Greater than 600,001 (11)

Note-Items with an asterisk were omitted due to improper factor loading.

Q11 Please answer the following questions on a scale from strongly disagree to strongly agree.

	Strongly Disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
*1. Health related knowledge excites me. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*2. Learning about the human body enriches me. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*3. I enjoy learning new health related things. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*4. Broadening my knowledge is fun. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I am an expert in health related matters. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I have a large amount of health related experience. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I have a great amount of health expertise. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12 Please answer the following questions on a scale from strongly disagree to strongly agree.

	Strongly Disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
1. I have a great deal of control over my health. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I have significant influence when it comes to my well-being. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*3. I am in control of my own health. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The main thing which affects my health is what I myself do. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q13 Please answer the following questions on a scale from strongly disagree to strongly agree.

	Strongly Disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
1. I could communicate with a friend that knows a great deal about the human body. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I can reach out to an acquaintance(s) that know much more about health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

than me. (5)							
3. I can communicate with other informed people regarding my health condition. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*4. I have access to a library. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*5. I have access to books. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*6. I have access to health related literature. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14 Please answer the following questions on a scale from strongly disagree to strongly agree.

	Strongly Disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
*1. Talking with my doctor feels risky. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I don't want to feel embarrassed in front of my doctor. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I don't want to say the wrong thing to my doctor.. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*4. It is not easy for me to share my health issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

with my doctor. (9)							
5. When I talk to my doctor, I risk being embarrassed. (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*6. When I work with my doctor, I risk being incorrect about something. (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*7. When I visit my doctor, I risk feeling shamed by my condition. (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q15 Please answer the following questions on a scale from strongly disagree to strongly agree.

	Strongly Disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
1. Effectively communicating with my doctor saves me time. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Effectively working with my doctor saves everyone time. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*3. Actively working with my doctor saves me money. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Actively communicating with my doctor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



gives me value. (10)

--	--	--	--	--	--	--	--

Q16 Please answer the following questions on a scale from strongly disagree to strongly agree.

	Strongly Disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
*1. I like to consult with my doctor. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I receive great pleasure by interacting with my doctor. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I receive enjoyment by working with my doctor. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I have a strong psychological connection with my doctor. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q17 Please answer the following questions on a scale from strongly disagree to strongly agree.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
*1. Excessive waiting at the doctors office deters me from going. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*2. I often don't go to the doctor because I don't like to wait. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*3. I often don't go to the	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

doctor because it is an inconvenience.

(3)

\*4. I don't like to wait at the doctor's office to be seen. (4)

\*5. I don't mind investing the time required to work with my doctor. (5)

\*6. I don't mind investing the energy required to work with my doctor. (6)

\*7. I don't mind investing the money required to work with my doctor. (7)

\*8. It doesn't cost me much to give my doctor accurate information (8)

\*9. Actively participating with my doctor is a smart investment (9)

\*10. It doesn't cost me much to provide my doctor quality information (10)

\*11. It doesn't cost me much to provide my doctor timely information

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(11) 12. It costs a great amount of time to effectively communicate with my doctor (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. It costs a great amount of time to effectively work with my doctor (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. It costs a great amount of energy to effectively communicate with my doctor (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. It costs a great amount of energy to effectively work with my doctor. (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*16. It doesn't cost me much to effectively work with my doctor. (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q18 Please answer the following questions on a scale from strongly disagree to strongly agree.

	Strongly Disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
*1. Before making decisions, my doctor gives serious consideration to what I have to say. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. My doctor seeks my suggestions before making decisions. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Before taking action my doctor consults with me. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*4. I feel like my inputs matter. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I help my doctor make the best decision. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*6. Me and my doctor work together to create quality outcomes. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*7. Interactions with my doctor are productive. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*8. My doctor listens to my opinions. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*9. My doctor's decisions sufficiently reflect my views. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q19 Please answer the following questions on a scale from strongly disagree to strongly agree.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
*1. My choice to use this doctor was	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

a wise one.  
(1)

\*2. I think  
that I did  
the right  
thing when  
I chose this  
doctor. (2)

\*3. This  
doctor is  
exactly  
what is  
needed for  
this service.  
(3)

\*4. I am  
very  
satisfied  
with my  
doctor. (4)

\*5. My  
doctor is the  
ideal health  
provider.  
(5)

\*6. My  
doctor  
provides  
good  
information.  
(6)

\*7. My  
doctor  
provides  
excellent  
service. (7)

8. My  
doctor gives  
good  
advice. (8)

9. I am  
generally  
please with  
my doctor.  
(9)

\*10. I enjoy  
my doctor.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(10) *11. I am very satisfied with my doctor's services. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I am happy with my doctor. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q20 Please answer the following questions on a scale from strongly disagree to strongly agree.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
*1. The probability that I will use this doctor's services again is high. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*2. The likelihood that I would recommend this doctor to a friend is high. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*3. If I had to do it over again, I would visit the same doctor. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*4. I plan to visit this same doctor in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

the future. (4)							
*5. I would recommend my doctor to other people. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*6. I will recommend this doctor to other people. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*7. I intend to continue purchasing services from this doctor. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q21 Please select the answer that best describes how satisfied you are with previous visits to your doctor.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
*Overall, extremely satisfied. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Overall, extremely pleased. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*My expectations were exceeded. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q22 Please indicate the degree to which you agree with the following statements concerning your likelihood/probability of returning to the doctor you had in mind as you filled out this questionnaire.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree	Somewhat agree (5)	Agree (6)	Strongly agree (7)
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	(4)						
In the short term. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the medium term. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*In the long term. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All things considered, the probability that you will return to the same doctor again is 100%. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**End of Block**

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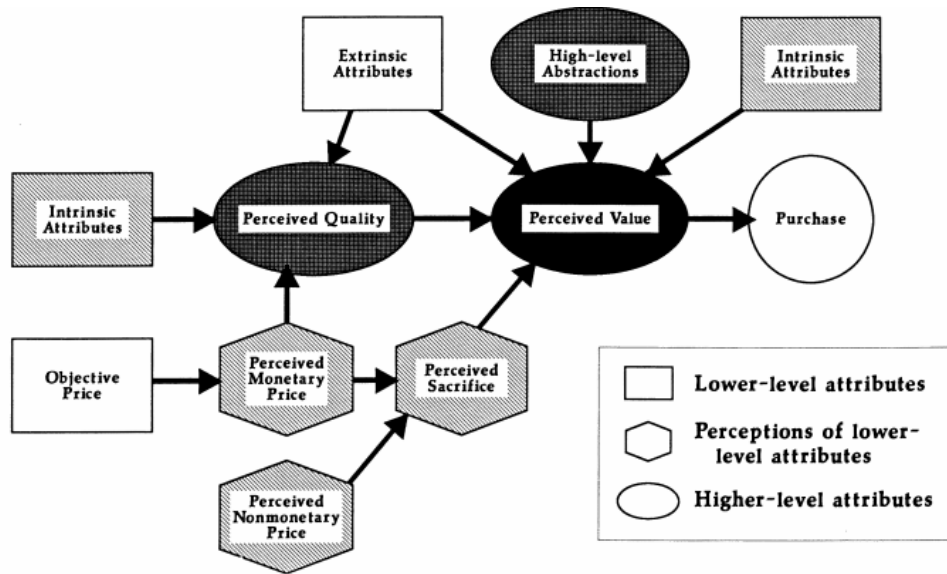


APPENDIX C

VALUE RELATED FRAMEWORKS AND MODELS

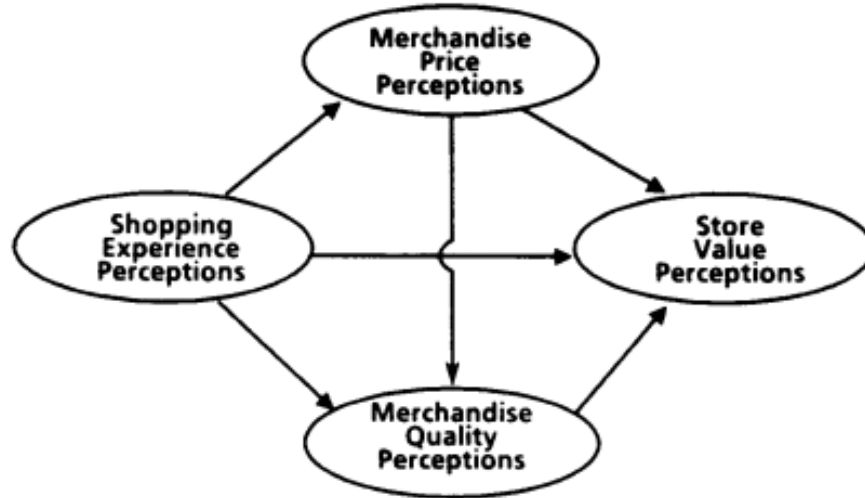
Zeithaml 1988

Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence

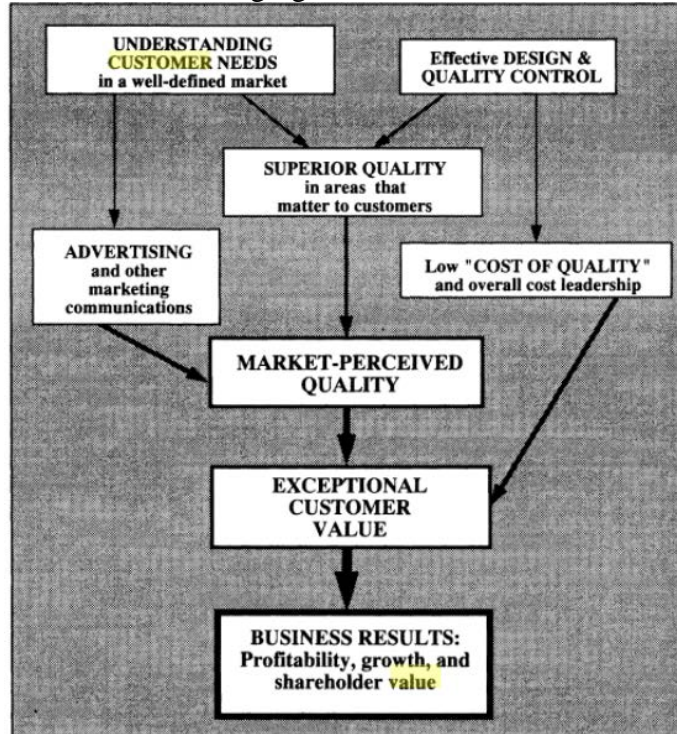


Kerin et al. 1992

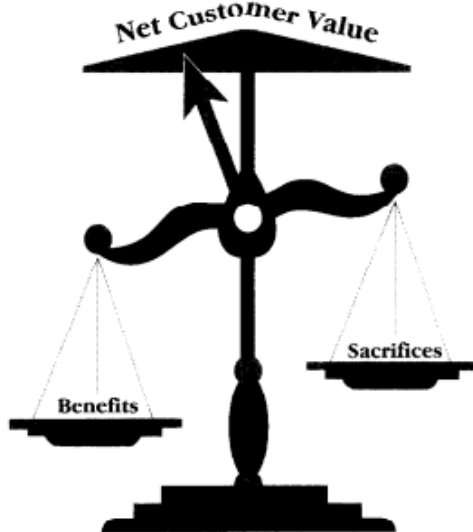
Store shopping experience and consumer price-quality-value perceptions



Gale & Wood 1994  
Managing customer value

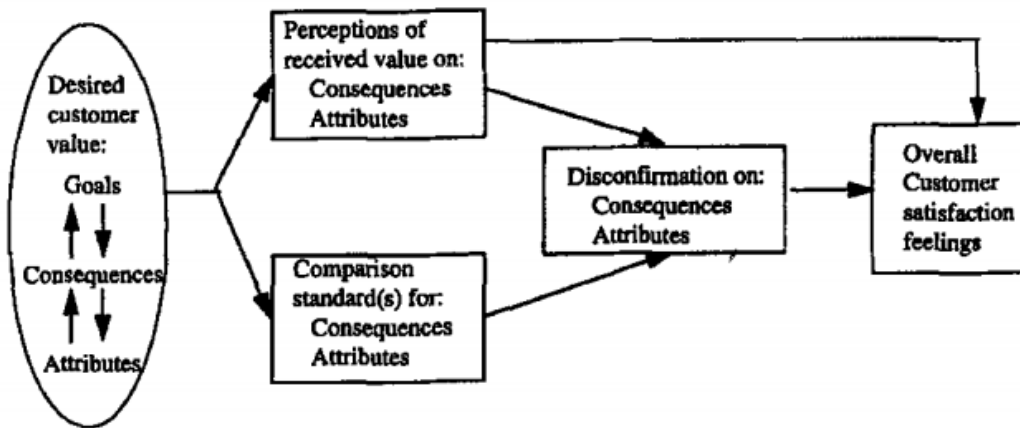


Butz Jr & Goodstein 1996  
Measuring customer value: Gaining the strategic advantage



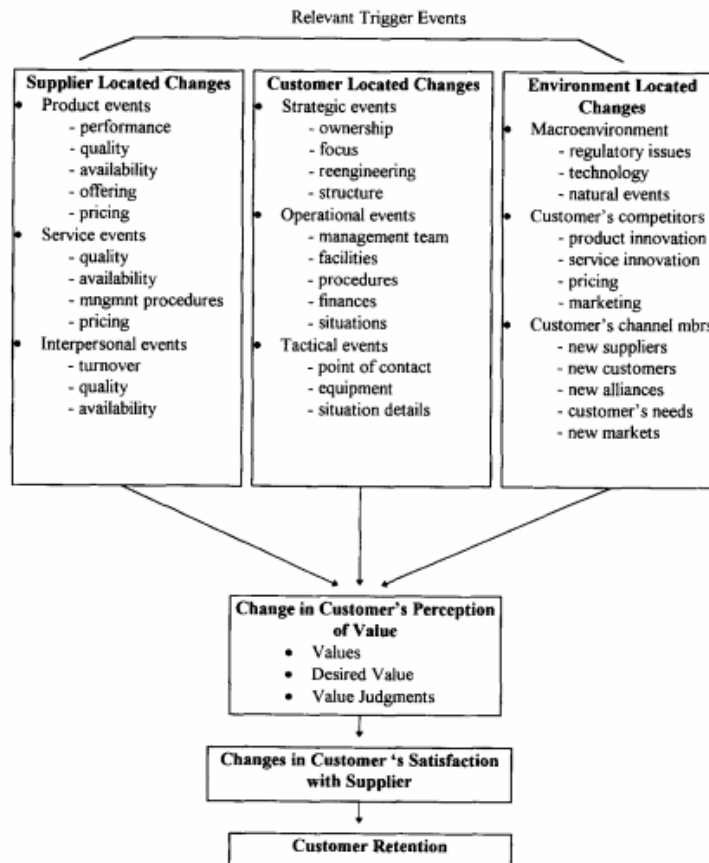
Woodruff 1997a

Customer value: The next source for competitive advantage



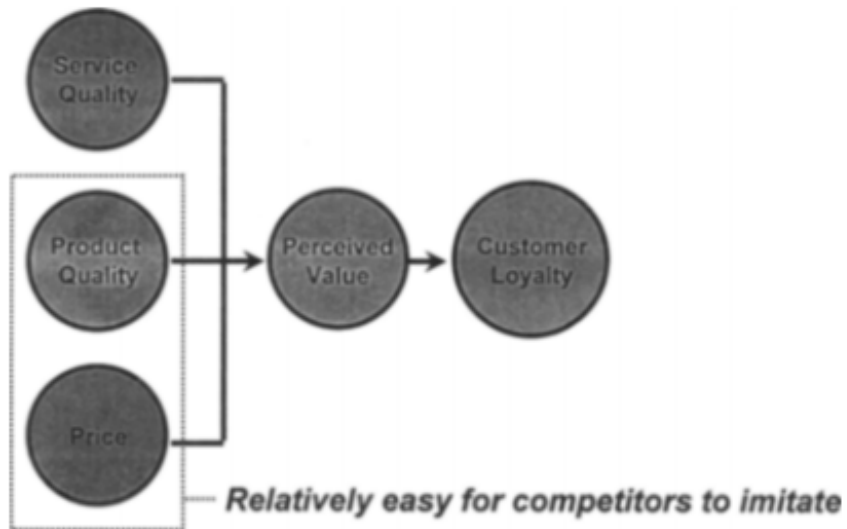
Flint et al. 1997

Customer value change in industrial marketing relationships

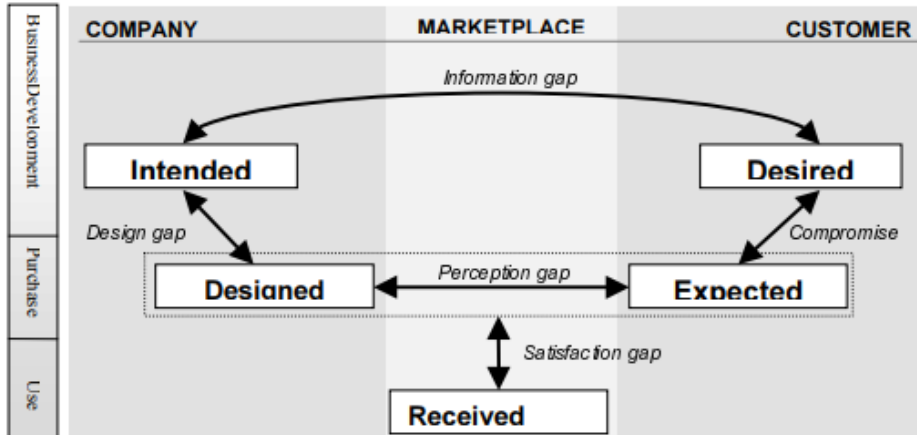


Parasuraman & Grewal 2000

The impact of technology on the quality-value-loyalty chain: A research agenda

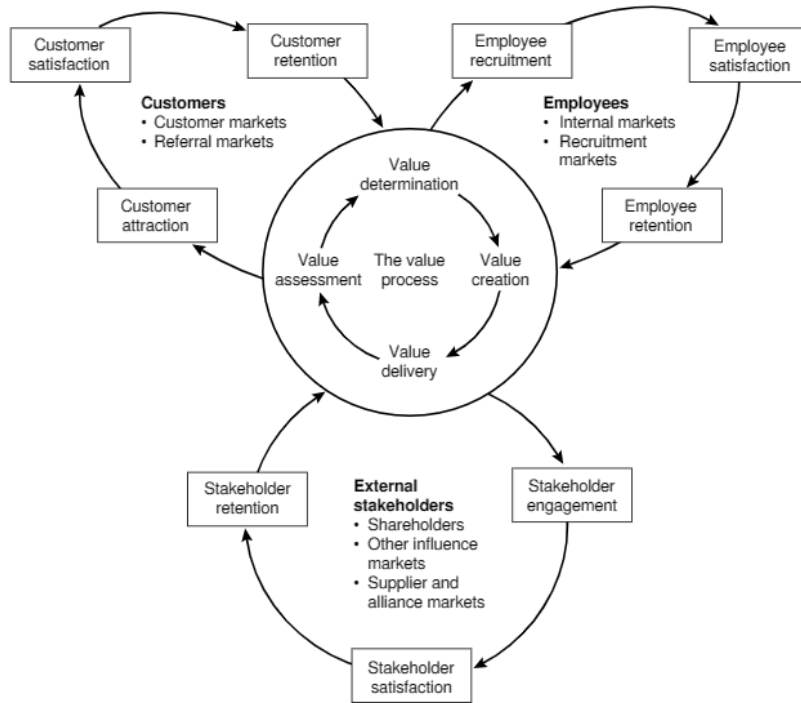


Van der Haar et al. 2001  
Creating value that can't be copied



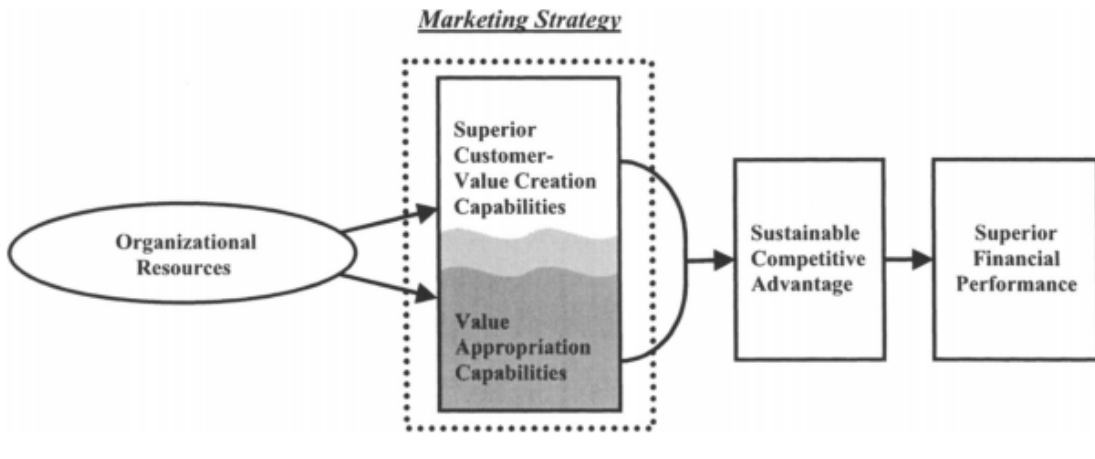
Payne & Holt 2001

Diagnosing customer value: Integrating the value process and relationship marketing



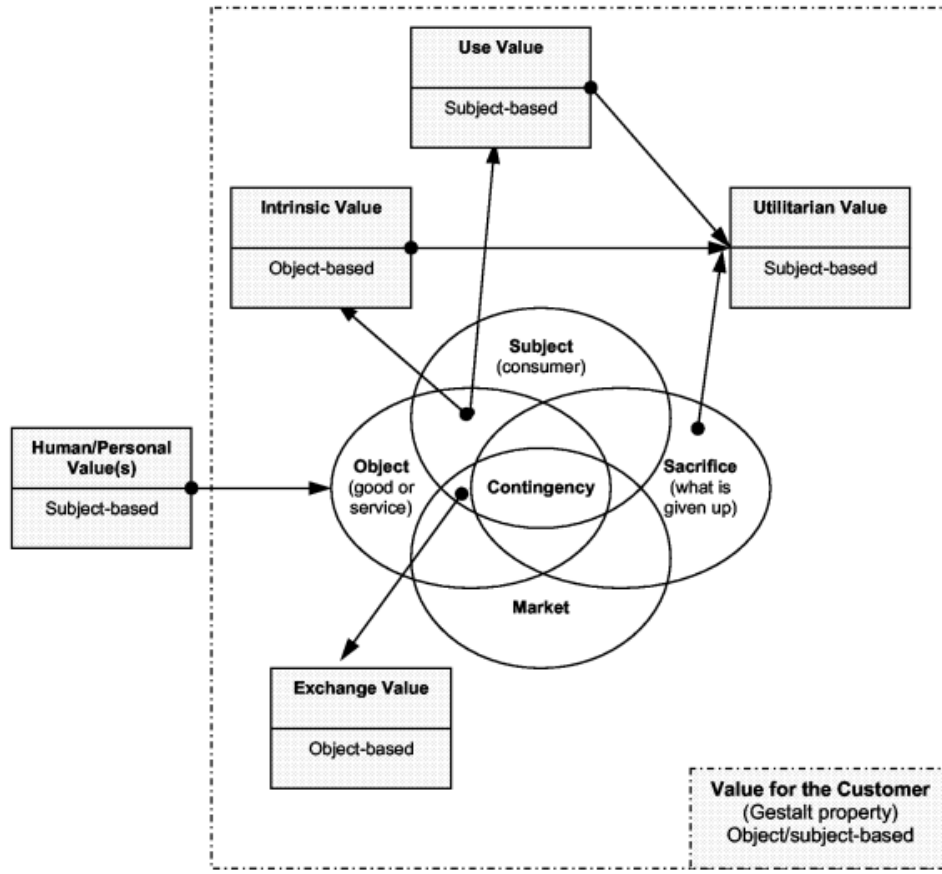
Mizik & Jacobson 2003

Trading off between value creation and value appropriation: The financial implications of shifts in strategic emphasis



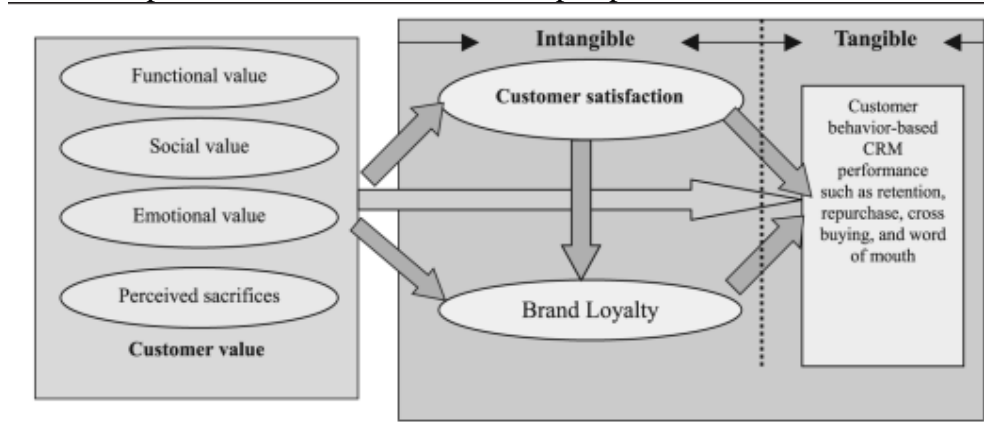
Woodall 2003

Conceptualising 'value for the customer': An attributional, structural and dispositional analysis



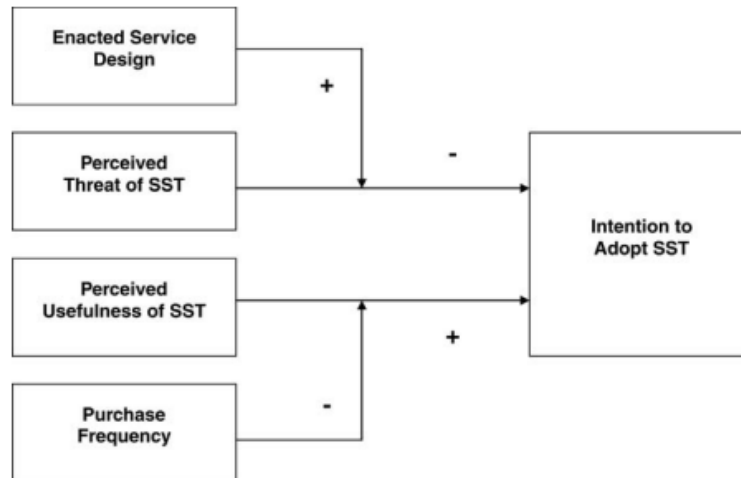
Wang et al. 2004

An integrated framework for customer value and customer-relationship-management performance: a customer-based perspective from China



Bhappu & Schultze 2006  
The Role of Relational and Operational Performance in Business-to-Business Customers'  
Adoption of Self-Service Technology

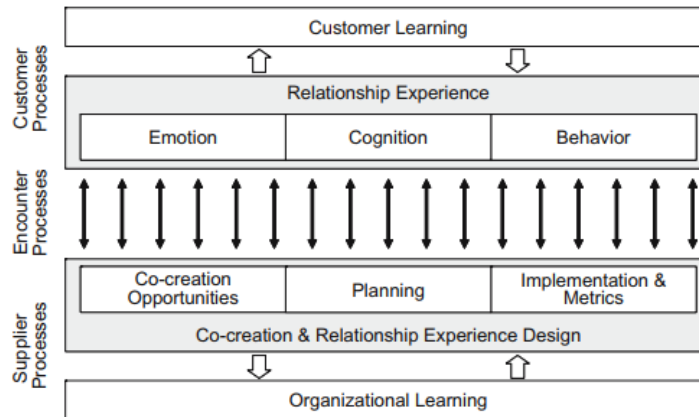
**Antecedents of Customers' SST Adoption in Business-to-Business Service Relationship Designs**



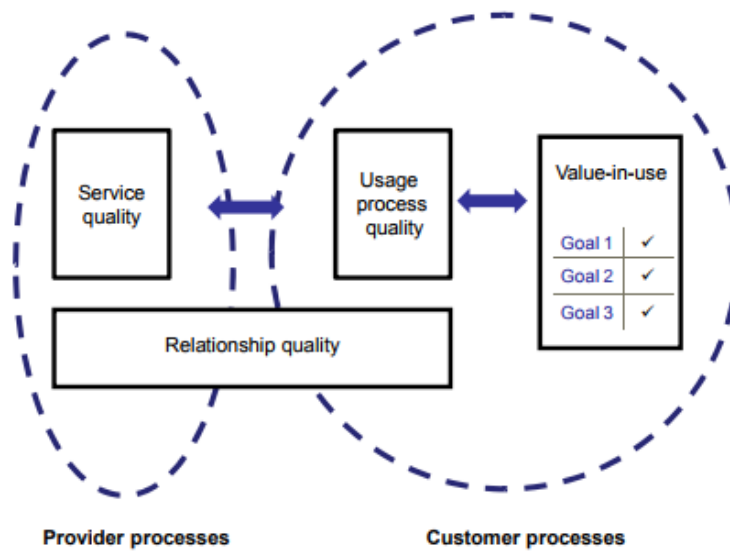
Auh et al. 2007  
Co-production and customer loyalty in financial services



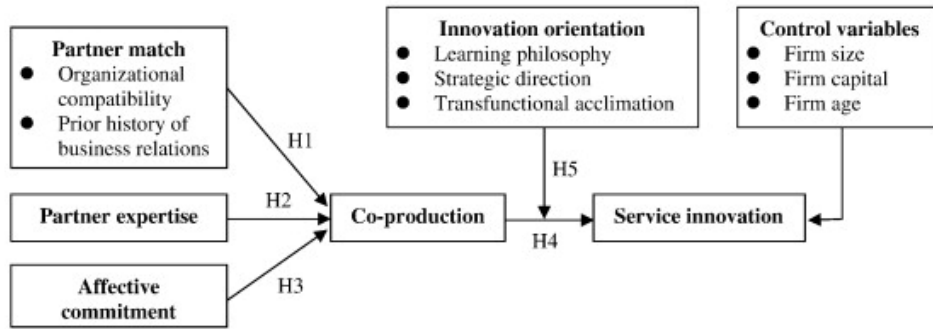
Payne et al. 2008  
 Managing the co-creation of value



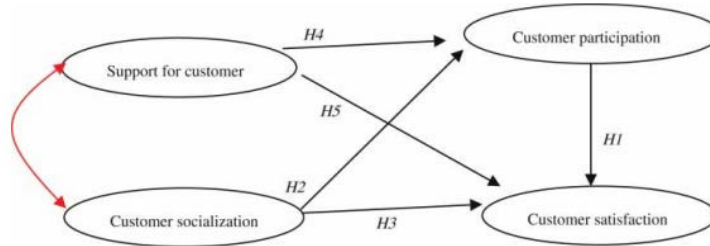
Macdonald et al. 2011  
 Assessing Value-in-Use: A conceptual framework and exploratory study



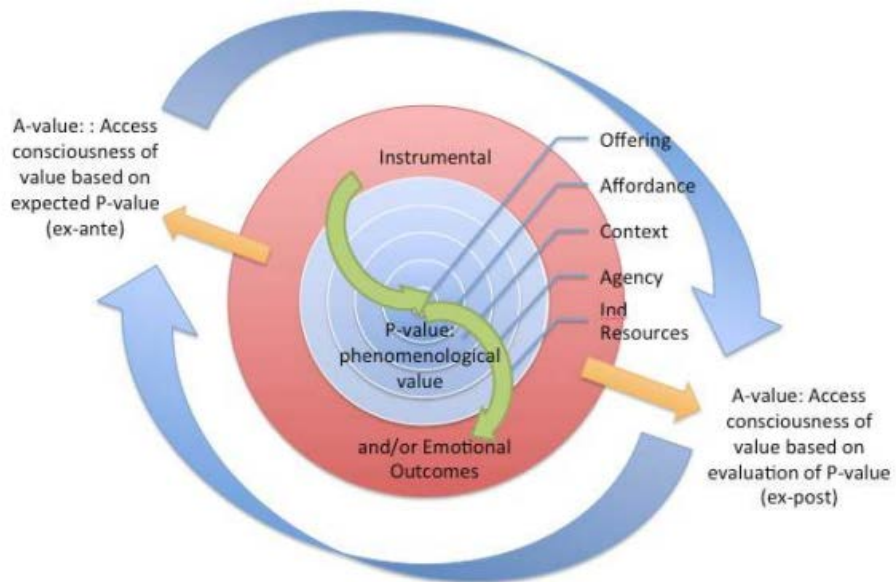
Chen et al. 2011  
Co-production and its effects on service innovation



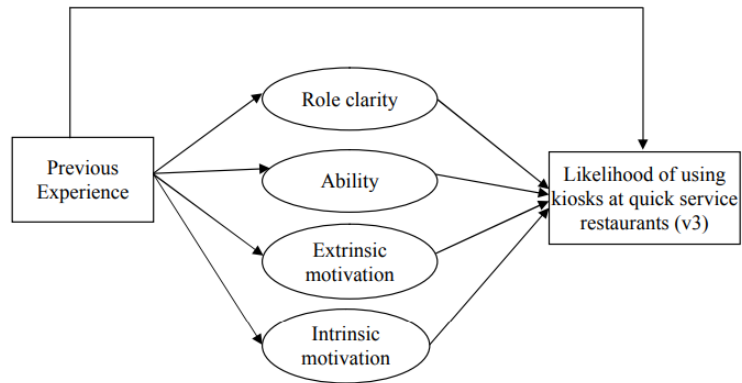
Wu 2011  
A re-examination of the antecedents and impact of customer participation in service



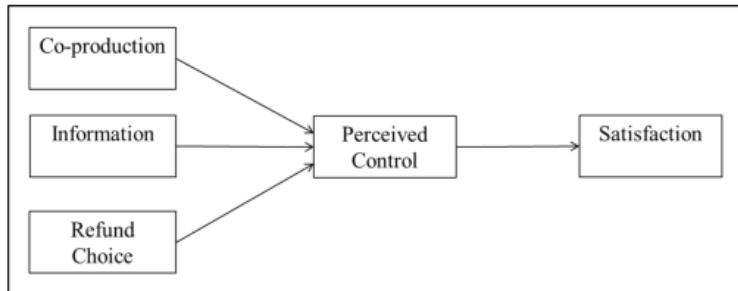
Ng & Smith 2012  
An Integrative Framework of Value



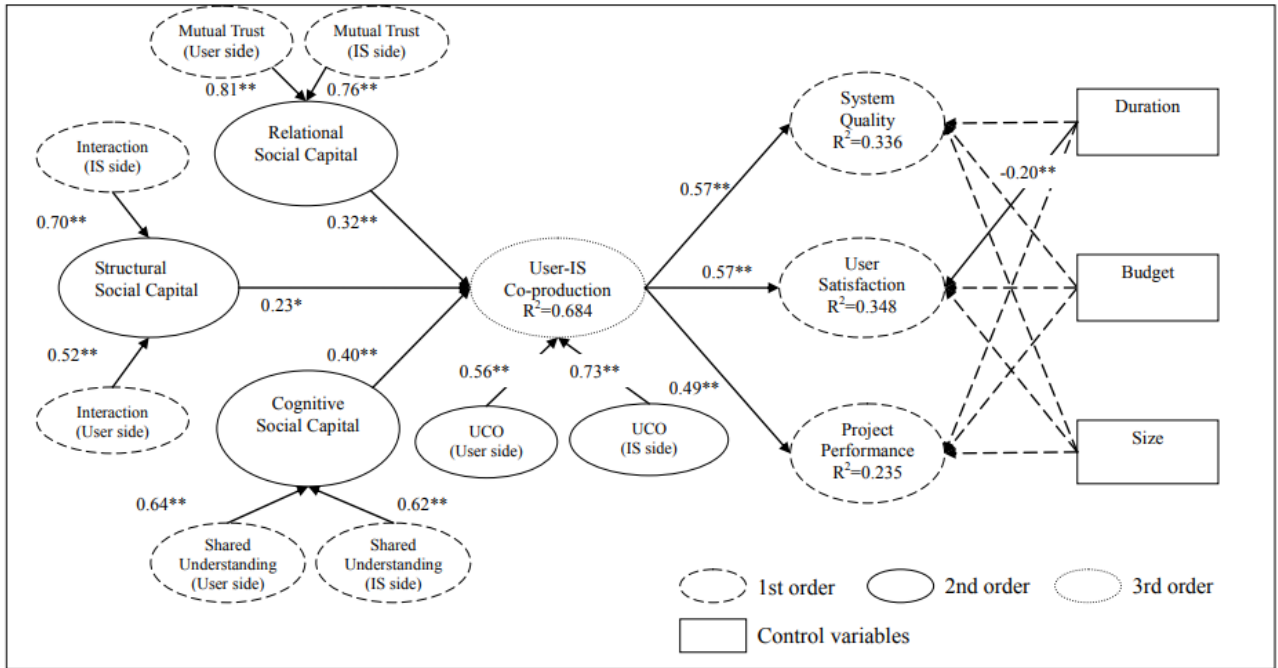
Kim et al. 2013  
Factors influencing customer acceptance of kiosks at quick service restaurants



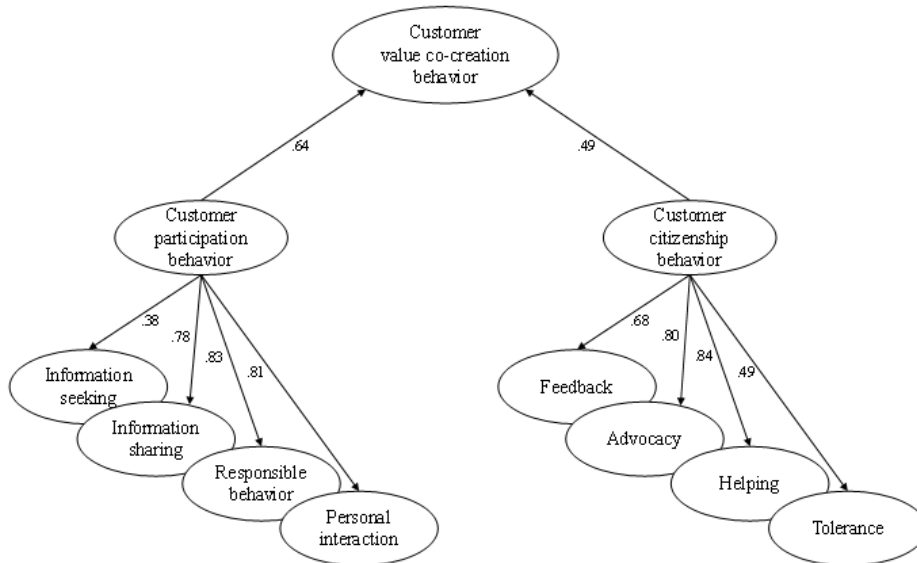
Pacheco et al. 2013  
A Perceived-Control Based Model to Understanding the Effects of Co-Production on Satisfaction



Antecedents and consequences of user coproduction in information system development projects

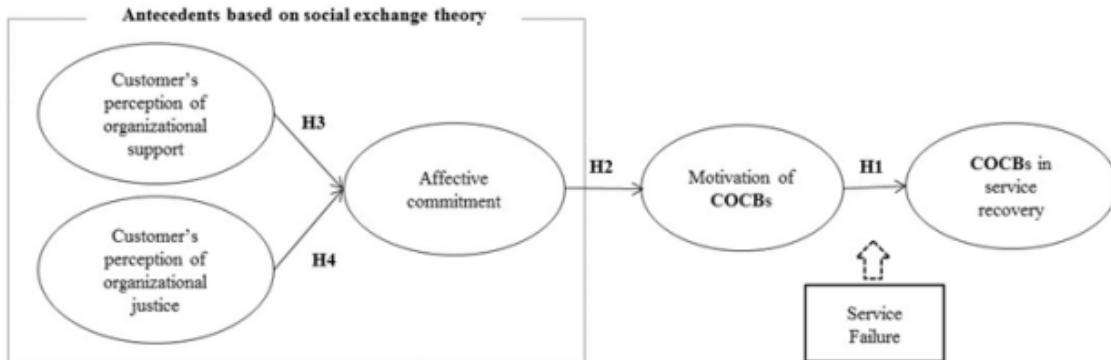


Customer Value Co-Creation Behavior: Scale Development and Validation



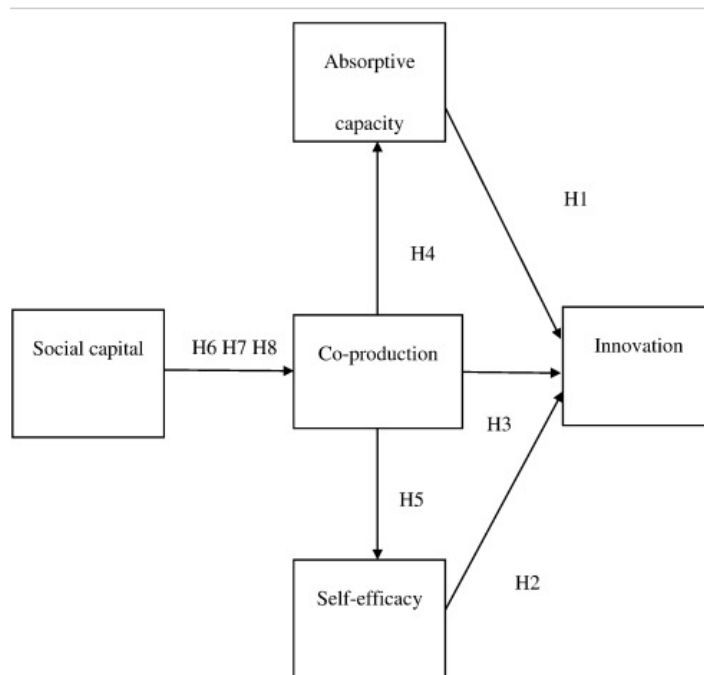
Choi et al. 2014

The impact of social exchange-based antecedents on customer organizational citizenship behaviors in service recovery



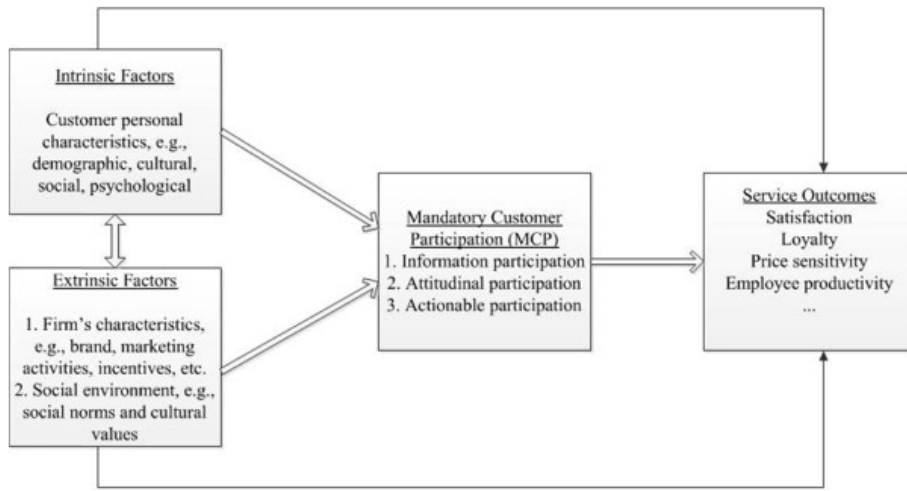
Wu et al. 2015

Managing innovation through co-production in interfirm partnering



Chen et al. 2015

Antecedents of mandatory customer participation in service encounters: An empirical study



Vargo & Lusch 2016

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