What Do Business Customers Value? An Empirical Study of Value Propositions in a Servitization Context

Kwesi Sakyi-Gyinae and Maria Holmlund

> *"Your customers are the judge, jury, and executioner of your value proposition. They will be merciless if you don't find fit!"*
>
> Alexander Osterwalder
> Theorist, author, consultant, and entrepreneur
> In *Value Proposition Design: How to Create Products and Services Customers Want*

This study was conducted in response to calls from the research community and industry for a greater empirical exploration of value propositions. It uses customer value-in-use as a starting point and employs empirical data on value propositions in a servitization context. The findings demonstrate how customers articulate the value-in-use, or benefits, of a selected offering. These results are subsequently used to develop value proposition elements that are aligned with these benefits. The implications for the value proposition literature and for companies in a servitization situation are discussed.

Introduction

Modern-day manufacturers expand their product lines via implementation, maintenance, upgrades, and a life-cycle approach, offering not just a product or equipment, but an outcome. New technologies, such as Internet of Things (IoT) devices, sensors, and big data are making it easier for manufacturers to monitor, analyze, and manage their products on the market, thus further driving the servitization trend. The term "servitization", used to describe the transformation journey of a manufacturer, was first invented in the 1980s (Vandermerwe & Rada, 1988). Its origins can be traced to the 1960s when Rolls-Royce created its "power by the hour" concept, whereby the use of a fully-maintained aircraft engine was sold by the hour rather than by the unit. Servitized firms are increasingly offering this type of service provision for several reasons, ranging from the need to identify a new competitive source or avoid price competition, to the desire to add value to traditional manufactured products while competing in an increasingly globalized market. Servitized firms are also seeking to innovate and sell solutions that meet customers' needs more comprehensively to avoid competing solely on a cost basis.

Regardless of its touted potential, servitization often produces mixed, underwhelming results in practice (e.g., Suarez et al., 2013). Mixed results are fundamentally attributable to the challenges in developing and implementing service-oriented business models (Gebauer, 2009; Gebauer et al., 2005; Kowalkowski & Kindström, 2013; Martinez et al., 2010). Bearing in mind that the challenges associated with developing and implementing a servitization business are the fundamental reasons for underwhelming servitization results, this study seeks to address one foundational element of such businesses, namely value propositions (Frow & Payne, 2011; Payne & Frow, 2014; Storbacka, 2011). It is prudent to focus specifically on value propositions because it has been demonstrated that they have been successfully developed and communicated by less than 10% of companies (Frow & Payne, 2011), indicating the extent of their untapped potential. The development of value propositions is associated with innumerable benefits, especially in a servitization setting that demands new capabilities and management practices. In practice, servitization is fundamentally about changing seller- and product-based value propositions to customer- and service-based proposals.

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There is a need, when developing value propositions, to understand what customers consider to be valuable. Smith, Maull, and Ng (2014) similarly assert that the "customer's value of a product could lie in the benefits they attain from the product instead of product ownership, suggesting that the provider could shift focus from the means of achieving such benefits (the product) to the benefits themselves." This study takes this customer perspective as the starting point for value propositions and uses Macdonald, Wilson, Martinez, and Toossi's (2011) customer-based definition for such value-in-use: "The benefits that accrue to customers and enable them to achieve their own business goals, purposes, objectives and/or priorities as result of engaging their resources with a provider's offering." A customer's conception of these benefits or value-in-use may be unknown to the seller or may differ from the seller's (Strandvik et al., 2012).

Indeed, many manufacturers assert that they are customer oriented but this might only apply superficially, while not probing deep enough to uncover how a customer really acts and thinks. Examples of this gap include a company having a product rather than a value-in-use perspective, not having an interest in or being unable to understand customer thinking regarding decisions and priorities, or not grasping differences in different reasoning approaches held by customers. Recognizing the customer's view will enable the manufacturer to develop value propositions that resonate with the customers' conception of value. This can then enable mutual value for the manufacturer and the customer and thereby ultimately foster servitization.

Using customer value-in-use as a starting point, the purpose of this study was to contribute knowledge to research and practice in which empirical data are utilized for value propositions in a servitization context. The study was conducted in response to calls from the research community and industry for a greater empirical exploration of value propositions. The case study findings demonstrated how customers articulated the value-in-use of the selected offering and are described herein. These results were subsequently used to develop value proposition elements that are aligned with customer value-in-use. The outcome of this matching is presented in this article. The case corporation, called ABC Global (for the purpose of confidentiality in this article), operates in the manufacturing industry. This successful company, established almost 100 years ago, is stock listed today and has almost 2,000 employees worldwide. The company is typical for manufacturing companies pursuing a servitization strategy in that it was established as an original equipment manufacturer (OEM) but has in the last few decades pursued a gradual transitioning into service business in most of its business units.

Literature Review

Although the call for studies that address value propositions based on empirically founded customer value-in-use in a servitization context has surged in recent times, surprisingly few studies have taken up this call. The most relevant studies are those by Ng, Parry, Smith, Maull, and Briscoe (2012), Smith, Maull, and Ng (2014) and Macdonald, Wilson, Martinez, and Toossi (2011). Ng and colleagues' (2012) study on a selected case reported 11 value-creating attributes and calculated efficient bundles from the perspective of the seller's resources and costs. Smith and colleagues (2014) conducted a study of an equipment manufacturer and reported four nested value propositions: asset, recovery, availability, and outcome. Arguably, that study was more seller oriented because the interviews were conducted among the seller case company's employees. Macdonald and colleagues (2011) interviewed buying groups and suggested a model for assessing customer value that looks at elements such as usage process quality, relationship, service quality, and value-in-use.

Value propositions have sometimes been equated with a "silver bullet" statement asserted by the provider to the customer (Yu-Lee & Haun, 2006). However, this statement-only approach is incomplete. Previous literature (e.g., Anderson et al., 2006; Ballantyne et al., 2011; Barnes et al., 2009) contends that robust, well-crafted value propositions comprise three key elements that will be used in this study: value points, value statements, and value substantiation. According to Anderson and co-authors (2006), the value point of customer value propositions can be: points of parity (similar elements that yield the same functionality or performance as the next market option); points of difference (unique elements that make providers' offerings stand out in the market as superior or inferior); and points of contention (elements that customer and provider disagree on in terms of functionality when compared to the market). After the manufacturer has undertaken customer research to understand value-in-use, it is then imperative to understand these value points in the offering. A value statement is a "clear, compelling and credible expression of experience that the customer will receive from a supplier's measurably value-creating offer" (Barnes et al., 2009). It is a concise way for manufacturers to express their value-adding intentions to the client. A supplier's value statement succinctly articulates

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the technical, economic, service, or social benefits that deliver value to customers (Anderson et al., 2006). This creates an understanding of how future conditions will differ from present conditions – for example, higher operational efficiency, greater rate of revenue generation, or lower cost incurrence (Yu-Lee & Haun, 2006).

There are tried and tested approaches to value substantiation. The three most relevant approaches in the context of this study are value equations, value case histories, and value calculators (Anderson et al., 2006; Barnes et al., 2009). Value equations express in words and simple mathematical operators how to assess differences in functionality or performance between a supplier's offering and the next-best alternative. Value case histories document the cost savings or value added that reference customers have actually received from their use of the supplier's offering. Value calculators are spreadsheet software applications that are used to demonstrate the potential value that customers will derive from a supplier's offering. While some of these approaches may be suitable for transaction-oriented services, others are preferable for more complex service offerings (Barnes et al., 2009). Also, these elements could cover technical, social, and emotional benefits among others (Anderson et al., 2006).

Based on the essential elements of customer value-in-use and value propositions found in the literature review, two research questions were formed to guide the empirical study:

- What benefits does a product offering provide to customers?
- What value propositions can be developed that resonate with these benefits?

Method

A case study is defined as "a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context" (Robson 2002). Such an approach enables a deeper understanding of elements expedient for developing value propositions in a servitization context (Saunders et al., 2009). In this study, the case company is suitable because of its disposition along the continuum of servitization from product oriented to use or result orientated and thus presents a fruitful opportunity for investigating value propositions and how they can be developed based on the customer's perspective. The data were generated primarily through customer interviews. Nonetheless, as a foundation for the customer interviews, an extensive familiarization and understanding of the case firm was conducted through more than 60 hours of internal expert interviews, reviews of more than 300 pages of company material (including annual reports, offering brochures, service strategy documents, and benchmarking study reports), and product demo videos. Six customer firms (termed Alpha, Beta, Gamma, Delta, Epsilon, and Zeta) were selected to represent customer group profiles that exist in the business unit. This selection was based on the customer's industry of operation, size of operational capacity, geographical distribution, and the ownership of the case firm's current product system. Profitability was not considered in the selection. Ten interviews were conducted with informants who were facility managers, information technology (IT) program managers, operations engineering managers, directors of business process, or in charge of quality assurance. The sampling strategies are consistent with Patton's (2005) criterion sampling approach wherein the selection of companies and informants is based on predetermined criteria of importance. The interview topics covered the informant and their background and experience; the customer company's goals, priorities, and requirements for procurement and suppliers; and offering-related issues such as use and benefits. The interviews were conducted in English and lasted an average of 45 minutes.

Empirical Findings

The company ABC Global bundles the hardware and equipment that it offers not just with additional support services, such as maintenance, calibration, and repair, but also with a software component that is an integral part of the offering.

The aim of the current empirical study was to illustrate customer-articulated benefits in relation to a selected case. Therefore, a data-driven inductive approach was used for the analysis to record the benefits communicated by customers to be of value to them. Initially, various concrete benefits were extracted from the data. These were considered to be value-in-use drivers because they constituted concrete advantages that the customers considered to be invaluable having previously accessed the product offering. Altogether, 20 value-in-use drivers were identified from the interviews. Thereafter, the identified benefits were further classified into separate, broader value dimensions that were given labels and definitions. The outcome of this stage of the analysis was six value-in-use dimensions: system, infrastructure, integration, usage, relationship, and price.

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Each value-in-use dimension is summarized in Table 1 and includes the defined data, value-in-use drivers, and representative quotations from the interviews with customer firms.

Three key value points are applied in this study: points of parity, points of difference, and points of contention. Based on the value-in-use drivers and dimensions below, an analysis of ABC's current offering was conducted:

- **System:** The seller and the customers currently disagree on the functionality compared to competing systems on the market (implying a point of contention).

- **Infrastructure:** The seller and the customers agree that the effort currently needed is less than for other options on the market and that this is a feature that makes an offering stand out as superior or inferior (implying a point of difference value point).

- **Integration:** The seller and the customers agree that the initializing effort currently required is less than that of other options on the market and that this is a feature that makes an offering stand out as superior or inferior (implying a point of difference value point).

- **Usage:** The seller and the customers agree that the performance of the ongoing operation of the offering is similar to other industry offerings (implying a point of parity value point).

- **Relationship:** The seller and the customers agree that the handling of customer problems is better with the seller than with other options on the market and that this is a feature that makes an offering stand out as superior or inferior (implying a point of difference value point).

- **Price:** The seller and the customers agree that the pricing model of service contract fees, as opposed to a one-off fee plus other variable costs, is better for the seller than other options on the market and that this is a feature that makes an offering stand out as superior or inferior (implying a point of difference value point).

Given that the structure of the newly proposed service offering is novel to the market and very few competitive offerings exist, competitive offering considerations (as suggested by Barnes et al., 2009) were not relevant and were not incorporated in the identification of value points. Of the three most relevant value substantiation techniques suggested by Barnes and colleagues (2009) and Anderson and colleagues (2006), the one that was considered most suitable for the purposes of this case study was value equations. Value equations are expressions in words and simple mathematical operators that demonstrate how to assess differences in functionality or performance between a supplier offering and the next-best alternative. In this case study, value equations were considered more suitable than value case histories and value calculators. Value case histories were deemed not realistic in this case because there no current customers for the new offering, meaning that there are not yet any reference customers. In the context of this study, value calculators were more appropriate in the latter stages of service development, when sales people need to demonstrate the value-selling approach to potential customers (Anderson et al., 2006). In order to achieve a robust value proposition, value substantiations have been aligned with the value points and value statements. The quantification was done to reflect the standalone customer value-in-use and was not compared to next-best market alternative. The three vital elements (value point, value statement, and value substantiation) were applied to this case, and each element was aligned with the value-in-use findings from the customers, as summarized in Table 2.

Conclusions

This research demonstrated how data from customers on their value-in-use of a selected offering could be used to develop value proposition elements to align with these insights. In so doing, it exemplifies the original value proposition elements described by Anderson, Narus, and Van Rossum (2006), namely value points, value statements, and value substantiation. Previous scholarly work has focused on one or two aspects (e.g., Barnes et al., 2009; Macdonald et al., 2011; Yu-Lee & Haun, 2006) but has not explored and demonstrated the coherence that can emerge when these elements are aligned with customer value-in-use.

A central premise of this study was the need to incorporate the customer value perspective into servitization and value proposition research; therefore, the new value-in-use dimensions warrant a supplementary discussion. We found that the benefits that accrue to customers from product functionality (i.e., the system dimension) influence customers' business priorities and goals. A provider's product functionality or performance is a significant resource in the customers' value-creating process and must be carefully considered in any value assessment framework in industrial

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Table 1. Value-in-use dimensions with definitions, value-in-use drivers, and representative quotations from customer firms

Value-in-Use Dimensions	Definitions	Value-in-Use Drivers	Representative Quotations
System	• Value-in-use relating to the functionality of the product-service bundled system.	• Highly regulatory-compliant system • Accurate data collection • Real-time and trended reports • Spot-on multiple alerts	"Regulatory compliance is the biggest reason, the driver behind the reason why we have it [the system]…it's a requirement to do business." (Alpha, Regional Facilities Manager)
Infrastructure	• Value-in-use relating to the extent of IT capabilities and other resources that are needed from the customer in order to optimize the fit of the provider's offerings with the customer's operation.	• High server security • Large server capacity • Simple network configuration • Easy server upgrades	"We're bringing in our own networks for automation …and they [our network group] do not like it…they have their ultimate software from a company and there's vulnerability when we add a device or server, anything, into our network." (Alpha, Facility Manager)
Integration	• Value-in-use relating to the process to initialize the offering and ultimately get the whole interface up and running.	• Effortless installation • Low personnel hours on server administration • Low personnel hours on application administration	"I have to go through and sort of write all my installation steps down first, and then I have to execute them in a staging environment, and then I have to be able to run it like a user acceptance testing. And finally, when that's all accepted, then I can say install production and switch over." (Beta, IT Program Manager)
Usage	• Value-in-use relating to the experience of the ongoing operation of the offering.	• Uptime data monitoring • Sustained (insurance of) application functioning • Seamless software upgrades	"It [a hosting service] will shift the onus to you to give more insurance that the application is up and running and operating appropriately and that there's a right level of management and state of health looking at the application." (Beta, IT Program Manager)
Relationship	• Value-in-use relating to the manner and urgency in which the seller responds to customers' problems.	• High response time to user-related problems • Faster technical support • Quicker application troubleshooting	"There would be a lot of people needed for support there; a lot of time there would be somebody that would answer a phone, but the engineers that would be needed to troubleshoot or a programmer or somebody that was needed to solve the problem, they weren't there or they were on vacation…" (Gamma, Operations Engineering Manager)
Price	• Value-in-use relating to price – the monetary value of utilizing the offering.	• Competitive and reasonable price point for offering	"You make sure that you figure out what customers are going to need and if it's going to cost you twice as much as you run those centres… you've got to be competitive too at the same time." (Alpha, Regional Facilities Manager)

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Table 2. How customer value-in-use was aligned with value proposition elements in this research

	Customer Value-in-Use		Value Proposition Elements	
Dimensions	**Drivers**	**Value Points**	**Value Statements**	**Value Substantiation**
System	• Regulatory-compliant system • Accurate data collection • Real-time and trended reports • Multiple alerts	Point of contention	• Decrease the risk and costs of non-compliance by using a provable regulatory-aligned system • Increase operational efficiency through active risk mitigation system functionality	(Production cost × cost of goods unsold) + potential $ fines/year
Infrastructure	• High server security • Large server capacity • Simple network configuration • Easy server upgrades	Point of difference	• Reduce costs by eliminating the need for system-related information technology infrastructure	kW spent × system operating hours/year × (number of personnel × hours spent/year) + (operating duration of software/server upgrades ÷ hours spent × $/hour)
Integration	• Effortless installation • Low personnel hours on server administration • Low personnel hours on application administration	Point of difference	• Reduce costs on server and application administration • Increase productivity by focusing on core business value activities	kW spent × system operating hours/year × (number of personnel × hours spent/year)
Usage	• Uptime data collection • Sustained (insurance of) application functioning • Seamless software upgrades	Point of parity	• Save time with better integration of standards of operations • Enjoy enhanced ease of use	System operating hours/year × (number of personnel × hours spent/year)
Relationship	• Quicker response time to user-related problems • Up-to-speed technical support • Faster application troubleshooting	Point of difference	• Reduce operational downtime with dedicated frontline support	1.000-0.005% downtime margin in offering support
Price	• Competitive and reasonable prices	Point of difference	• Pay per use, when required, wherever	Customer budget/year - system benefits/year

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markets. The manner in which customers use the provider's offering to achieve their own goals is a key value driver for the customer in terms of their transition to purchase the new offerings. Hence, understanding customers' IT resources in light of the provider's service transition strategies (particularly with a hosted solution) is a key consideration. A lack of understanding in this direction can hinder the crafting of value propositions that resonate with customers.

Usage and relationship were found to offer some benefits to the customers and enabled their own creation of value. In a significant way, quality, as articulated by the customers in this study, is typified by the ease of application use and sustained functionality. In the technology acceptance literature, perceived ease of use refers to the extent to which a person accepts that using a particular method would not have a cost and believes that using the technology will be effortless. In this sense, the ease by which software upgrades are executed is crucial.

In a servitization process, identifying the relationship dynamics that will enable the customer to achieve their own goals is important. Findings from our study show that the speed at which issues on the customer interface are resolved by the provider has a positive repercussion on the achievement of the customer's own goals and priorities. Examples here include quicker response time to problems and faster application troubleshooting. From a value-proposition perspective, this will enable providers to highlight enhanced gains in "faster" or "quicker" operations, which ultimately means monetary gains for the customer.

The findings in this study show a lucid distinction between infrastructure and integration as value-in-use dimensions. The former relates to the physical resources needed to utilize the provider's offerings, whereas the latter is concerned with the operational processes required to execute and initialize the system. An understanding of the importance of the value-in-use dimension of integration in servitization guides the provider to reflect on which optimal solution provider role to take on, either as systems sellers or systems integrators. Understanding pricing preferences and how they support customers' business goals is important for the manufacturers, particularly as servitization tends to move them from the traditional mode of a cost-plus pricing model to a value-based pricing model.

For managers, the findings of this study have three important implications. First, in their quest to evolve their business model in order to harness servitization potential, manufacturers need to thoroughly understand what customers value both in their present and proposed offerings. The six value-in-use dimensions reported in this study provide a springboard that can be used by managers to understand customer value. In themselves, these six dimensions remind managers that product and price considerations alone are not enough when ascertaining customer value; other value-in-use dimensions – those relating to customers' own resources (i.e., infrastructure) and the way in which they are able to effectively combine (i.e., interaction) resources in an efficient and interactional (relationship) manner to achieve the goals that matter most to them – are also important.

Second, an important implication from this study for managers is the need to craft value propositions from three inter-aligned elements: value points, value statements, and value substantiation. Servitization (in relation to a result-oriented typology) often proves to be a new path for industry stakeholders – one that many customers will grudgingly journey along. Thus, managers must understand how each element of their business model value propositions can be aligned to provide a coherent message for customers. Any savings for the customer will mean a level of burden incurred by the provider in the form of key resources, activities, or partners; this burden will need to be assessed and the most profitable and sustainable cost structure determined. Servitization in manufacturing is about value and the measurable benefits that will accrue to help the customer achieve their own business goals.

Finally, communication will be imperative, particularly when considering the transition from one-off product sales to service contract terms. For example, value substantiations will form and justify parts of the terms in the service contract, and this sales channel should also be used as an awareness creation or educational document not only for pre-contract negotiations but also post-subscription support. Other possible key channels are the sales team, who need to replace their push approaches with value-driven pull techniques to enable customers to create their own value. Internal communication via channels such as the intranet is also critical and should be used to drive the customer value language of the servitization offering.

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