Conceptualizing Public Service Value in E-government Services

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ABSTRACT
Given the substantive investments that governments are making in information technology and the development of e-government channels to improve interactions with citizens, there is increasing interest in determining whether these investments are paying off, and encouraging citizen use of and migration to less costly e-channels. For research on e-government to advance, it is imperative that we gain a good understanding of what citizens and other public sector 'customers' mean by value. This research-in-progress paper therefore reports on a study aimed at defining the value e-government from the perspective of the citizen in relation to e-government services.

Keywords  
E-government, Perceived Value, Service Quality

INTRODUCTION
In today's society, technology plays an important role in the formation and delivery of services. This is no different for the public sector, where technology is enabling governments and its agencies, employees, business partners, citizens and other stakeholders to be more effective in providing and receiving services. In the United States, the federal government spends approximately $71 billion on technology each year (Evans 2009). Given the substantive investments that governments make in information technology and the development of e-government channels to improve interactions with citizens, there is increasing interest in determining whether these investments are paying off, and encouraging citizen use of and migration to less costly e-channels.

To date, most assessments of e-government effectiveness are from the perspective of the customer and focus on measuring user satisfaction. For instance, reports on user satisfaction with U.S. federal government websites seems to suggest this is so, with the ACSI e-government Satisfaction Index scoring high in 2009 (Fornell, 2010; ACSI, 2009). However, governments are becoming increasingly focused on the concept of value and what this might mean for citizen evaluations of public sector services. As themes around 'public value' take center stage in public sector mandates, it will become more important to have a view of 'service value' that can then be examined in relationship to key questions concerning e-government satisfaction and ultimately 'public trust.'

When it comes to understanding the 'customer', the public sector takes many of its cues and principles from the private sector, where customer-centricity has long been a major theme. Although the idea of value from the customer's perspective has been widely addressed in the private sector (e.g. Woodall, 2003; Zeithaml, 1998), there is little agreement on what constitutes customer value and how this impacts key outcomes such as consumer decision-making. Even then, applying what is known about value in the private sector to the public sector is complex since many of the parameters and assumptions (such as price, competition, and voluntariness) that constitute various perspectives on how value is determined in the private-sector do not apply naturally to the public services.

Another complicating element is the role of the 'customer' in the public sector. For example, in the private sector, the role of the customer is clearly defined: customers convey preferences (by determining what they desire and by paying for it) and are the direct recipients of the goods and services from the supplier and thereby receive private value (Alford, 2002). However, in the public sector preference may be expressed by the citizenry through democratic political structures, or the political structures may help citizens to form their preferences (Alford, 2002; Fountain, 2001). The ensuing services are then consumed by 'customers' who benefit directly from the service and so received private value (but may/may not pay directly for the service), and the citizens who benefit...
indirectly and so receive public value. Thus the only 'customer' role in the public sector that comes close to the customer role in the public sector is that of the 'paying customer'. As such, applying value concepts developed in the private sector to the public sector would constrain our understanding of public sector 'customer' value, and how it relates to other key elements of e-government success. For research on e-government to advance, it is imperative that we gain a good understanding of what citizens and other public sector 'customers' mean by value.

This paper reports on a study aimed at defining and conceptualising the concept of value from the perspective of the 'citizen' (customer / client) in relation to e-government. The paper proceeds as follows. First, we examine how key concepts of 'value' are conceptualised in the literature. Next, we examine the literature on the nature of public service value from the perspective of the 'customer'. Using these findings, a conceptual model of e-government value is introduced. The paper closes with an overview of the next steps planned for this research.

CONCEPTUAL DEVELOPMENT

E-government is defined as "the use of information technology to enable and improve the efficiency with which government services are provided to citizens, employees, businesses and agencies (Carter & Belanger, 2005). For the most part, the public sector is concerned with the provision of services (rather than manufactured goods). Although the term 'services' refers broadly to deeds, processes, and performances, in this study we are concerned with services as products (as opposed to customer service or 'derived service'). The term 'services' in this sense therefore refers to an intangible product offering that customers value and are willing to pay for (Zeithaml et al., 2006). There are three key characteristics that distinguish services from goods, namely, intangibility, heterogeneity and inseparability (Parasuraman et al., 1985). Given these characteristics, the way in which concepts such as value, quality and satisfaction are perceived and evaluated for a service differ from that of manufactured goods. Further distinctions are also drawn when it comes to public sector services particularly the notion of (public) value and how this may be defined, perceived and measured.

Why value?

Although, there is great potential for IT to enhance the delivery of e-government services, there are negative aspects such as the deepening of the digital divide for disadvantaged citizens (Bélanger and Carter 2009) and increasing concerns about privacy and security of personal information shared with the government (Belanger & Hiller, 2005; Jorgensen & Cable, 2002). To overcome these concerns, the referent parties need to be convinced that they are acquiring sufficient value when what is received is compared with the sacrifices made. Although research shows that customer satisfaction and perceptions of service quality are key factors impacting outcomes such as repeated purchase, use, loyalty, even a satisfied customer may not repeat a purchase or continue to use a service. The same can be said for a service that is evaluated as high quality. As such, private sector focus is shifting from concerns about customer satisfaction and service quality, even though these are still important considerations, to determining how best to create value for customers (Woodall, 2003). In democratic societies, it is expected that over time concepts of value determination and value creation will become central in the evaluation of e-government services. With this in mind, the next section explores the current literature on value, in particular those themes related to service value, with a view to positing a 'theory' of value aimed at describing and conceptualising the notion of 'public service value'.

Customer Value

The concept of value takes on different meanings in different disciplines. For example, in the behavioural sciences a value is defined as an 'enduring belief that a specific mode of conduct or end-state is personally or socially preferable to an opposite of converse mode of conduct or end-state of existence (Rokeach, 1963). In this sense, a value is seen as an enduring, non-situational specific belief. In philosophy the challenge is to locate the root of value – Is a thing valued because it is valuable, or is it valuable because it is valued? In economics, the term 'value' may refer to 'the utility of a particular object' or to the 'power of purchasing other goods which the possession of that object conveys (Smith 1914).

In marketing, the term 'customer value' is arguably an ambiguous term that has been used in the literature to denote the value that a customer derives from a supplier, as well as the value that a supplier derives from customers (Woodall, 2003). In this paper, we focus on the demand-side of value that is, the value that a customer perceives he/she receives from a supplier. In addition, the supplier is a government agency.

A variety of terms have been used to indicate the demand-side of value – the most common are 'customer value' (Holbrook, 1996; Woodruff, 1997), 'perceived value' (Zeithaml, 1988), or simply 'value' (Ostrom & Iacobucci, 1995). Within the services literature, the terms 'service value' or 'perceived value' are more likely (Zeithaml, 1988; Bolton & Drew, 1991). Just as there are many terms in the literature, so also there are many definitions of

\[1\] Customer service – the service that a company or organisation provides in support of its core product offering
'value'. For example, Gale (1994, p xiv) defines customer value as "market perceived quality adjusted for the relative price of your product", while Woodruff (1997) refers to customer value as "a customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in use situations". Zeithaml (1988, p14) defines perceived value as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given". In a similar vein, Dodd et al (1991) describes value as "a trade-off between perceived quality and perceived sacrifice".

Even with many terms and definitions, common elements emerge: that customer value is inherent (linked) to use of a product or service; it is determined by customer perceptions and not by the supplier and; it typically involves a trade-off between what customers receive and what they give up (i.e. monetary and non-monetary sacrifices) to get and use the product or service (Woodall, 1997; Zeithaml, 1988). At the same time, the different conceptualisations point to the complexity that emerges when the value construct is explored at a deeper level. For example, while some conceptualise value as unidimensional (Agarwal & Teas, 2002; Sweeney et al., 1999), at lower levels of abstraction value is viewed as a multi-dimensional phenomenon. For example, Holbrook (1999) posits a three-dimensional view of value consisting of: extrinsic vs. intrinsic value, self-oriented vs. other-oriented value, and active vs. reactive value. Sweeney and Soutar (2001) propose a four-dimensional view of value consisting of emotional value, social value, and functional value (i.e. price/value for money and performance/quality). Finally, Woodall (2003) offers a five-dimensional view of value comprised of marketing value, sale value, derived value, net value, and rational value. Hence, many of the difficulties that arise in defining and conceptualising notions of customer value have come about because researchers recognise that value, being influenced by the customer's viewpoint, is a dynamic, highly idiosyncratic, individual and subjective concept that changes over time and is subject to context (Bolton & Drew, 1991; Holbrook, 1999; Woodruff, 1997; Zeithaml, 1988).

**Service Value**

As with the marketing literature, the notion of 'value' in the services literature is likewise a highly personal and individualistic concept that takes on different meanings. Although definitions of value differ, in the services literature the insights offered by Zeithaml (1988) are the most commonly used. In an exploratory study of value in the product category of beverages, Zeithaml found that consumers define 'perceived value' in different ways (p. 13):

(i) **Value is low price.** Consumers who equate value with low price are typically indicating that money is most salient component of the give-get tradeoffs in their view of value.

(ii) **Value as whatever the consumer wants in a product (or service).** This viewpoint emphasizes the benefits a person receives from the product as the most important component of value. Zeithaml equates this viewpoint to the idea of utility, which is a subjective measure of the usefulness or want satisfaction derived from consumption.

(iii) **Value is the quality received for the price paid** – this emphasizes the trade-off between one component (price paid) and another component (quality received).

(iv) **Value is all that is received for all that is paid** – this considers all the relevant 'give' components (price, time, effort, etc.) and all the relevant 'get' components (benefits).

Bringing together these perspectives, perceived service quality is defined as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given" (Zeithaml, 1988, p14). By far, this viewpoint dominates much of the service value literature (Bolton & Drew, 1991; Ostrom & Iacobucci, 1995; Sirdeshmukh, Singh & Sabol, 2002). Although Zeithaml (1988) recognises perceived value as a complex notion that varies depending on one’s viewpoint the emerging definition suggests something more unidimensional. Furthermore, this viewpoint is anchored in a means-end perspective that (as will be argued later on) does not equate readily in the public sector.

There have also been several attempts to synthesize the various clusters of research in the literature and arrive at consensus on what is 'customer value' and how it should be conceptualised and measured (Khalifa, 2004; Sanchez-Fernandez & Iniesta-Bonillo, 2007; Woodall, 2003). However, no real consensus has been reached. This has been largely due the difficulties involved in defining the term 'customer value', even when the focus is constrained to a single domain such as "services marketing". This implies that for researchers to derive a meaningful understanding of what 'customer value' truly is, the concept must be explored and defined within its context.
Defining Public Service Value

So far, we have uncovered some of the complexity and difficulties involved in defining the demand side of perceived value from the perspective of the private consumer. However, the views of value that emerge in the private sector (market) do not apply naturally to the public sector. This is because public sector services present a number of attributes that make it difficult to arrive at a perspective/viewpoint of what we mean by ‘public’ service value. These include price, the role of citizenry vs. customer, and voluntariness.

1) Price. A key point of difference is that exchanges in the public sector typically lack some of the structures that help to define value in the free market (private sector). For example, when it comes to private sector, the most commonly used definitions of service value are aligned with the ratio or trade-off between quality and price (Zeithaml, 1988). However, price as a determinant of value does not equate in the public sector. For example, when the public sector creates value, this is not normally through citizens (or the recipient of the service) voluntarily giving over money or other resources for the service received. Rather the ‘give’ component of the exchange is often not direct or voluntary since it is more commonly obtained through taxes and legislation which compel citizens to contribute (make payment) directly to the government so that its objectives can be achieved. Ultimately it is expected that these objectives are manifested in services; however, the payee may not be the direct beneficiary (consumer) of these services. On the other hand, where the recipient of the service also pays for the service (‘paying’ customer), then price as a determinant of value may apply.

2) Customer. Although there is a general agreement in the public sector literature that the ‘customer’ is key in public sector reforms and service transformations aimed at improving quality of service, it is difficult to define who the customer is when it comes to the exercise of preference (choice) and consumption of public sector services. Typically, in the private sector, the interaction between the customer and the service provider is one that is: (i) reciprocal in nature (i.e. the customer pays the purchase price in return for goods or services); (ii) both parties receive private value, thus the goods or services are consumed by the customer and the money paid by the customer to the supplier; (iii) the customer normally has choice among competing suppliers for the product; and (iv) positive preference, thus the consumer can choose whether they want to obtain or consume the goods or service (Alford, 2002). The customer's role and interests are reasonably well-defined in private sector exchanges, and distinguishable from that of shareholders, employees, business partners, etc. On the contrary, in the public sector there are several categories of actors. When it comes to the individual (Alford (2002) identifies two broad classes that relate to the demand-side of public service value - the citizenry and the client.

On the one hand citizens consume the value that is provided by the government whether as citizenry (who receive public value) or as customer (who receive private value). Citizens exercise preference (through their representative or political structures) and in this way have a say over public value, and the private value that customers consume. Alford (2002) refers to those citizens who the government deals with at its ‘business-end’ as customers. Here, there are three categories:

- **Paying customers** – this role is similar to the customer in the private-sector firms, but differs in some respects. For example, the paying customer of a public sector service is rarely the ‘sole paying customer’ for the service since most services are subsidised.

- **Beneficiaries** who receive a service but give no money directly to the organisation in exchange for the service.

- **Obligates** – those beneficiaries who are subject to a service because of legal obligation or legislative requirements. In this case, the beneficiary may not have a positive preference for the service (which is a key assumption for private sector services) (Moore, 1994)

Mintzberg (1996) offers another perspective on the categorisation of individuals in relation to public sector organisations. As individuals, Mintzberg posits that we wear ‘different hats’ in society: customer, client, subject, and citizen. As customers and citizen, individuals have a reciprocal, give-and-take relationship with the government. Customers receive direct services, and can be said to interact with the business arm of the government; citizens have rights and benefit more indirectly from the public infrastructure that the government provides. Hence customers can be said to receive private value, and as citizens they receive public value. In the role of subjects and clients, Mintzberg suggests the relationship is more one-sided. Subjects have obligations to the government to respect state controls, laws etc., while clients are considered as those who receive a professional service and are therefore more concerned with what the state provides. When it comes to e-government services, users are not simply customers – they are citizens whose relationships are governed by statutory requirements, professional and ethical codes (Grimsley & Meehan, 2007).

3) Voluntariness. Unlike the private sector, public sector services represent a mixed bag when it comes to the attribute of voluntariness (freedom to choose). For the public sector to create value (and achieve its goals), it

does so through the power of coercion – taxation and the authority of the state (laws) that compel citizens to contribute directly to the state achieving its objectives (Moore, 1995). For many services, customers will have little or no choice about whether to obtain the service from the public sector. For example, if a person needs to renew a driver's license he/she will need to go to the government agency with responsibility for drivers licensing; the alternative is to forego a valid driver's license. On the other hand, when it comes to services such as healthcare, some may be in a position to exercise preference, and choose whether to use private or public healthcare services. To some extent, both of these situations could be considered voluntary encounters. Mandatory (or obligatory) encounters present a different scenario, as choice and/or preference may not apply. For example, the detainment of an individual who has committed a crime is considered an obligation encounter.

The use of coercive power also undermines consumer sovereignty, which provides the crucial link between individual judgments of value and control over what is produced. Coercion negates the exercise of preference which is a critical indicator of value to the individual. On the other hand, the resources used by governments are ascribed to public sector managers through a process of voluntary choice, exercised not by the individual but by a collection of individuals (community) through representative government. Therefore, it is not enough for public managers to create results that are valued; they must also show that the results obtained are worth the cost of private consumption and the liberty that has been foregone to produce the results (Moore 1995).

From a public sector supplier perspective, value is often assessed in terms of efficiency and effectiveness. So, program evaluation and cost-effectiveness analyses are the techniques most often used to assess public value (Moore 1995). Although these may inform public perceptions of value, they do not reflect a customer-centric view of value. For example, an economics view of value would suggest that public sector value be determined by the individual weighing up the costs and benefits to them as an individual. However the paradox of value is that from the public sector perspective, value is determined by how well a program achieves the objectives set by the government itself. These objectives are typically referent to the collective, whereas economic perspective of cost/benefit analysis is individual and does not consider the collective (Moore 1995).

The Paradox of Public Sector Value (Creating Public Value)

Like the creation of private value, public sector managers use resources that have alternative uses to create value for citizens. However unlike the private sector, in which presumptive value to the consumer is assumed when they choose give up money and other resources (i.e. voluntary exchange of money) to purchase a product or service, in the public sector the resources used to derive value come from mandated sources through the collection of taxes and obligation, which compel individuals to contribute directly to the achievement of public objectives (Moore, 1995). This exchange makes it difficult to assign or evaluate the value of public services.

When it comes to the assessment of public sector services, many of the approaches and theories that relate to private sector services do not apply as well to public sector services. At the same time there are some services that more directly mirror the situations of private sector. For example, national postage services will typically be evaluated using approaches such as means-end analyses (Zeithaml, 1988).

Service Value, Service Quality, and Client Satisfaction

When it comes to assessing customer perceptions of services, there are three concepts that typically emerge – customer satisfaction, service quality and service value. All three concepts – satisfaction, quality and value may be considered decision-tools when it comes to customer choices and preferences judgment. Although the three concepts are related, and may share some attributes in common, most researchers agree that they are distinct. When the public sector looks at public value from the perspective of the client, this is typically from the viewpoint of user satisfaction and service quality, and will focus on the quality of the interactions that the government has with its citizens.

The term 'quality' can be defined as 'superiority or excellence' while perceived quality is described as "the consumer's judgment about the excellence or superiority of a product" (Zeithaml, 1988, p3). Both quality and 'value' have attributes in common, such as subjectivity, personal and context-dependency. For example, value may be regarded as a more individualistic and personal construction than quality, and is therefore a higher level concept than quality. Also unlike quality, value from a means-end perspective involves tradeoffs between what consumers give up for what they get (Zeithaml, 1988).

The confirmation/disconfirmation literature defines 'satisfaction' as a function of an initial standard and some perceived discrepancy from the initial reference point, which may be positive or negative (Oliver 1980). Oliver (1981) therefore defines satisfaction as the 'surprise a customer receives after a purchase. As a concept, customer satisfaction is strongly related to service value. Both concepts convey evaluative subjective, personal judgments.
Both also depend on use of the product or service about which the judgment is made. However, a key distinction is that perceptions of value do not necessarily lead to satisfaction, although satisfaction may lead to value.

**PERCEIVED VALUE IN THE PUBLIC SECTOR AND ITS NOMOLOGICAL NET**

The task of determining what constitutes the 'demand-side' of value in e-government services is arguably, a complex undertaking that cannot be readily addressed by the simple application of private sector perspectives on value. Although these theories may enlighten aspects of public service value, to better understand what constitutes a customer's (or citizen's) perspective of public sector value it is necessary to explore the concept in its context. Therefore, this research effort seeks to identify and validate the concept of value in e-government.

The research model, presented in Figure 1, presents the nomological net of perceived value in e-government based on the aforementioned literature. In the model, satisfaction and service quality impact perceived value of e-government, which in turn, increases usage intentions and public trust. The components of e-government value are to be determined by this research. Some initial concepts are presented in the lower right called out image.

**TIMELINE FOR PRESENTING PRELIMINARY FINDINGS AT AMCIS**

The research proposes to first identify and validate the components of e-government perceived value, and then to test these within the nomological net presented above. To identify and validate our e-government value construct, we will collect qualitative data from citizens and government agencies in various countries. We expect to complete data collection in June 2010 and the majority of our data analysis in July 2010. Therefore, we expect to present preliminary findings of both our citizen surveys and government interviews. We will also be able to discuss implications for research and practice.

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