



# Value creation in outsourced service provision in public transportation

Value creation  
in service  
provision

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## Abstract

**Purpose** – The purpose of this paper is to identify and describe the perceived value drivers (benefits and sacrifices) in outsourced service provision in public transportation. The authors focus on the suppliers' perception of value creation for customers and value creation in a business-to-business relationship.

**Design/methodology/approach** – In-depth interviews are conducted with 26 managers and employees participating in a business-to-business relationship concerning what create value following the critical incident technique.

**Findings** – The results show that perceived benefits and sacrifices are related to the product, the service and the relationship. In addition, there are certain prerequisites in the public transportation system that inhibit value creation, and much value is destroyed in the business relationships before it reaches the passengers.

**Research limitations/implications** – This paper reveals a need to find new quality strategies for the improvement and assurance of value creation in outsourced service provision. The value drivers identified originate from the suppliers' view.

**Practical implications** – Managers should acquire knowledge regarding the value they create or destroy, both within their organisation and in their business network, and thus ultimately for their customers. Moreover, drivers that destroy value should be identified, measured, analysed, and managed.

**Originality/value** – The paper contributes to a better understanding of the difficulties in creating value when service provision has been outsourced.

**Keywords** Value analysis, Outsourcing, Transportation, Quality management

**Paper type** Research paper

## Introduction

Creating and delivering value to customers is a concern for all businesses today, both in the private and public sectors. Many scholars define value as a trade-off between the benefits and sacrifices perceived by the customers in the offering of a supplier (Zeithaml *et al.*, 1990; Monroe, 1991; Woodruff and Gardial, 1996). The value concept has its tradition in business research, focuses on the value of a physical product, and often neglects the service and relational dimensions of value (Dwyer and Tanner, 2002). According to Lapierre (2000), value can be created not only through physical products but also through services or the relationship as such.

In many industries, service provision is outsourced, which can lead to challenges when it comes to value creation (Johnson, 1999; Metters and Verma, 2008). The public transportation industry in Sweden is one context where service provision has been outsourced.



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Each county has a public transport authority (PTA), which is responsible for public transportation in the region on the roads and railway, as well as public transport from and to the region (Enquist, 1999). The transports are run by private operators and the business relationship is regulated through a contractual governance agreement (Enquist *et al.*, 2005). These organisations, the PTA and the operators create value for their common customers, that is, the users of public transportation. The PTAs do not have a direct, face-to-face relationship with the users, thus there is a mutual dependence between the PTA and the operators on value creation for users. This mutual dependence can both reinforce and diminish value creation. Problems in communication or different interpretations of a contract can destroy value in outsourced service provision. It is also a challenge for the public transportation industry since they must take into consideration not only the users' benefits and corporate benefits, but also social benefits (Fryer *et al.*, 2007).

Our knowledge of how value creation appears among the different actors in outsourced service provision is still limited. Hence, the aim of this paper is to investigate what creates value in a public transportation context where service provision has been outsourced. In this empirical investigation, we adopt two views:

- (1) value creation for customers (users and the public); and
- (2) value creation in a business-to-business relationship.

More specifically, our empirical investigation focuses on the value concept and seeks to identify and describe the value drivers (benefits and sacrifices) in this outsourced service provision setting. The relationship dynamics are studied through "critical incidents" including source, content, and results (Edvardsson, 2000). This research is based on 26 in-depth, semi-structured interviews with key-informants consisting of managers and employees involved in a business relationship in the public transportation industry. The results show that there are certain prerequisites in the public transportation system that inhibit value creation, and that much value is destroyed in the business relationships before it reaches the passengers.

### **The value concept**

Value is a concept discussed in several literature streams and has a wide range of meanings (Ramirez, 1999). It has been used in various disciplines such as economics, accounting, finance, strategy, operations management, and marketing (Gale, 1997). Within quality management, Reeves and Bednar (1994) view value as one out of five perspectives in the concept of quality. A definition of quality based on the value concept relates the performance of the product to the price. A product of high quality is a product that has high performance at a reasonable price or cost (Garvin, 1988). Already Shewhart (1939) had a wider interpretation of value including use, cost, esteem, and exchange. In accordance with this view, value is still often seen as the trade-off between benefits and sacrifices perceived by the customers in the offering of a supplier (Ulaga and Chacour, 2001; Zeithaml *et al.*, 1990; Monroe, 1991; Woodruff and Gardial, 1996). Perceived benefits are often described as a combination of physical attributes, service attributes and technical support available in relation to the particular use situation. Perceived sacrifices are sometimes described in monetary terms, but other definitions describe sacrifices more generally (Monroe, 1991).

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The traditional view of value is connected to a product (Shewhart, 1939). However, due to the increased importance of the service sector (Shugan, 1994; Schneider and White, 2004) and the characteristics of a service as being produced and consumed at the same time, a more process-oriented perspective has been proposed (Flint *et al.*, 2002). In service production, resources can act on or in concert with other resources to provide benefits and create value. In perspective, there is a shift from static resources such as plant and equipment to resources such as employees, competences of the service producer, other value-creation partners, and users (Vargo and Lusch, 2008). As such, value is co-created and experienced in a process where both customers and suppliers play an active part, which makes value embedded in the relationship itself (Lapierre, 2000; Ulaga, 2003). Instead of restricting the evaluation of value to a single episode, value should be extended to take into account both episode benefits and sacrifices as well as relationship benefits and sacrifices, since the relationship itself can have an impact on the perceived value (Ulaga and Chacour, 2001).

#### *Value as constellations of value creators and destroyers*

We view value as embedded in the relationship and described as a multidimensional concept consisting of value drivers that create or destroy value (Anderson *et al.*, 1993; Anderson and Narus, 1995, 1999; Lapierre, 1997, 2000; Ulaga, 2003; Ulaga and Eggert, 2006; Vargo and Lusch, 2004; Lusch and Vargo, 2006; Walter *et al.*, 2003). An investigation of the constellation of value by Ulaga (2003) focused on the relationship between a manufacturer and supplier in an industrial setting and identified eight value drivers that consisted of three or four sub-dimensions. Of all value drivers, six referred to benefits (product quality, service support, delivery, supplier know-how, time-to-market, and personal interaction) and two referred to sacrifices (direct product cost and process cost). In an empirical investigation of more than 400 companies, Ulaga and Eggert (2006) provide guidelines about each value driver's potential for differentiating among suppliers in a business relationship.

Lapierre (2000) conducted a study in the service sector in a business-to-business domain and identified 13 value-based drivers of customer-perceived value. The empirical study was based on a survey sent to 209 executives in the information, communication and entertainment sectors and 129 executives in the finance sector. The 13 value drivers were divided into three scopes: product, service, and relationship. The perceived benefits that include ten-value drivers refer to the product (alternative solutions, product quality, and product customization), service (responsiveness, flexibility, reliability, and technical competence) and relationship (image, trust, and solidarity). The perceived sacrifices that include three value drivers refer to price, time/effort/energy, and conflict (Table I).

The research of Lapierre (2000) has been criticised by Ulaga (2003) for the inclusion of established concepts such as "image" and "trust" in the value concept. Furthermore, the benefit drivers in the model created by Lapierre (2000) can be perceived as both benefits and sacrifices, for example, flexibility (benefit) and inflexibility (sacrifice), while the sacrifice drivers can only be perceived as sacrifices (Ulaga, 2003). In addition, Witell *et al.* (2007), state that new value drivers or new constellations of value drivers must be introduced in a business relationship. For other contexts, the value drivers might differ, that is, there may be other constellations of value drivers than those so far identified and proposed (Witell *et al.*, 2007).

Many of the studies that have investigated the value concept have focused on the manufacturing sector, that is, the value drivers are perceived as connected to tangible resources (Ulaga, 2003; Ulaga and Eggert, 2006; Walter *et al.*, 2003). As this research is conducted in the sector of public transportation, Lapierre's (2000) conceptual model of value is central for this research. We have three main arguments for using this framework. First, Lapierre has included the service dimension in her framework and our study focuses on value creation in outsourced service provision. The second reason for choosing Lapierre's framework is her explicit use of the relationship dimension as a category of value drivers. This fits well with our perspective that value creation is embedded in a customer relationship. Third, Lapierre's framework is empirically grounded. Our research is intended to further develop Lapierre's conceptual model of value and increase our knowledge of value creation in outsourced service provision.

#### *Value creation in business networks*

Many industries are establishing inter-organisational relationships through the outsourcing of either part of or their total offerings, which forces a rethinking concerning organisational structures and managerial arrangements (Ramirez, 1999). Within these business networks, organisations produce value through their relationships, partnering, and alliances. Enquist (1999) uses the term "value-creating stakeholder networks" when referring to a more dynamic view of an inter-organisational relationship. In the literature, value-adding activities in interconnected value chains are also referred to as "value streams" (Davies, 2004), "value networks" (Christensen, 1997) and "value stars" (Wikström and Normann, 1994). Flint (2004) and Walter *et al.* (2001) use the "supply chain" or "network" competences and characteristics in value creation and refer to the structural characteristics of the supply chain.

Our knowledge is limited about how value is created throughout the different processes and actors in the business network (Johnson, 1999). The value concept represents a view that value is created by various actors using various resources in the market or business network (Ramirez, 1999). This means that value is co-invented, combined and reconciled in an interlinked chain of activities (Porter, 1985). In these networks, there can be separate or joint economic actors. The outsourcing of service provision means that external agents conduct one or more organisational activities (Lacity and Hirschheim, 1993; Tebboune, 2003). The complexity induced by outsourcing concerns both the roles and relationships among the different actors (Normann and Ramirez, 1993). Previous research has identified benefits of outsourcing service provision in improvements of quality, cost, and the assurance of fair competition

Domain	Product	Scope	
		Service	Relationship
Benefit	Alternative solutions	Responsiveness	Image
	Product quality	Flexibility	Trust
	Product customisation	Reliability	Solidarity
Sacrifice	Price	Technical competence	Time/effort/energy
			Conflict

**Table I.**  
A conceptual model of  
value drivers

**Source:** Lapierre (2000)

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(Lam, 2007). In this study, we focus on the potential possibilities and problems created by outsourcing service provision with a focus on value creation activities.

## **Empirical investigation**

### *The empirical context*

The public transportation industry in Sweden has been organised with a PTA in each county, which manages the transports in the region on roads and railway, as well as public transports from and to the region. Service provision has been outsourced to private operators that are contracted through a public procurement process. The owners of the PTAs are the county councils and the municipalities. The PTA and the operators co-create value for the public through the service offering. In this empirical investigation, we focus on value creation for the passengers of public transportation. The inter-organisational activities between the PTA and operators are co-ordinated by the PTA in a stakeholder network (Enquist, 1999). Ferlie *et al.* (1996) characterise a value-creating stakeholder network by interactive collaboration between the public and private sectors.

Our research interest is to investigate what creates value in a public transportation context where service provision has been outsourced. We take a business-to-business relationship between a PTA and a private operator in the stakeholder network as our point of origin. This relationship is regulated through a contractual governance agreement over a period of eight years. The latest agreement established in 2004 is valid until 2012. We have investigated how value creation takes place for the customers of public transportation within a specific business-to-business relationship regulated by a contractual agreement.

### *Sample, data collection, and analysis*

Data for this empirical investigation were gathered during in-depth interviews with key informants at the PTA and their largest operator, which runs approximately 71 percent (in 2008) of the total transports in this county. The respondents included key informants involved in the business relationship between the PTA and the operator. Direct involvement in the business-to-business relationship was seen as a critical component to identifying and describing value drivers. A total of 26 key informants (out of 27 possible) agreed to participate in our empirical investigation. At the PTA, the interviewees included, among others, the CEO, an operations manager, an information manager, a technical manager, an economical manager and three business area managers. At the operator, 13 people were interviewed including two business area managers, a group leader for traffic planning, two operations managers, two regional managers, and a person responsible for goods handling. The interviews lasted from about 30 to 90 minutes. Each interview was recorded and transcribed. The first interviews conducted in December 2006, were used as a pre-test to check that the questions could be understood and that the results could be identified as value drivers in this relationship. The final interviews were conducted in May 2007.

The 26 interviews were semi-structured and consisted of three parts. First, the interviewer described the purpose of the research study and the value concept as such. The respondents were then asked about their own backgrounds and their roles in the organisation. Second, the respondents were asked to describe what benefits and sacrifices they perceive in the value creation for customers of public transportation and

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how value creation takes place in the relationship between the PTA and the operator. Third, the interviewees were asked if they had experienced some critical incidents in the outsourced service provision. The critical incident technique was used to reveal additional value drivers that had not been revealed through the other parts of the interview (Gustafsson and Johnson, 2003).

The notion of critical incidents traditionally refers to an episode where the customer interacts with the service provider's contact persons, systems or physical equipment (Edvardsson and Olsson, 1992). A critical incident (Bitner, 1990; Flanagan, 1954; Johnston, 1995) is an unusually positive or negative event that deviates from the norm and catches attention (Edvardsson and Olsson, 1992). A critical incident can influence an ongoing business relationship, for example, a negative critical incident may result in the termination of a relationship and a positive critical incident may result in a stronger and deeper relationship (Holmlund, 2004). The participants in our study were asked to provide a detailed description of critical incidents that had appeared in the past, that is, what triggered them, the consequences they had and what the outcome of the incidents were. All interviews were read and an initial analysis of the data were conducted while highlighting the value drivers (benefits and sacrifices) and critical incidents in each interview. All interview, material was analysed in relation to the conceptual model of value of Lapierre (2000). We aimed to unfold critical incidents to identify the drivers of value in line with the tradition in service research of studying critical incidents (Bitner, 1990; Flanagan, 1954; Johnston, 1995; Edvardsson, 1988).

## Results

Our analysis of the 26 interviews conducted with the PTA and the operator of the outsourced service provision revealed 271 value drivers related to prerequisites, value creation for the customer, and value creation in a business-to-business relationship. These three instances can be explained by understanding that the intention of the system is to create value for the customer. Since service provision is outsourced, value has to be created first in the business-to-business relationship. All parties operate in an overall system where there are prerequisites that can either enable or inhibit value creation.

It is noteworthy that 52 of the value drivers identified can be viewed as prerequisites in the value-creation process. These prerequisites are issues outside the control of the day-to-day activities related to value creation and belong to the system. One example is the latest governance agreement from 2004 that contains a number of agreement deficiencies, such as "breaches of agreement" and "indistinct agreement" (lack of bonus and lack of knowledge about the agreement). Other examples are the "public procurement process" and "different regulations." These prerequisites show that a number of issues influence the possibility to create value for the customers of public transportation, but they are outside the control of any of the actors in the value creation network. The politicians in the county should work to change the prerequisites and reduce the factors that inhibit value creation.

On an overall level, 64 value drivers were revealed for the customer and 155 for the business relationship. The overall view and conceptualisation of the value concept fits well with the suggested model by Lapierre (2000), that is, the value concept is deconstructed into scope (product, service, and relationship) and domain (benefit and sacrifice). It is noteworthy that for the customer, the product dimension seems to be

a frequent scope of value drivers, while service is a more frequent scope of value drivers for the business relationship. In the following section, we discuss our findings related to value creation for the customer of public transportation and value creation in a business-to-business relationship (Figure 1).

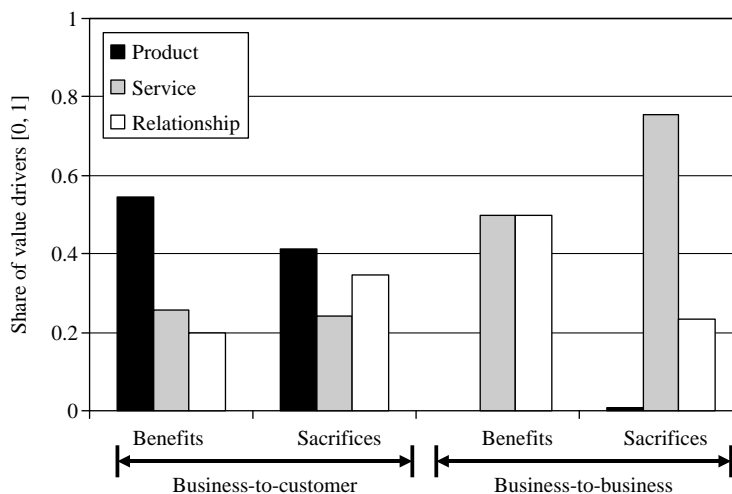
*Value creation for the customer of public transportation*

Altogether, 64 value drivers for the customer of public transportation were revealed. Using these value drivers as the point of departure, we identified ten categories of value drivers – five benefits and five sacrifices. On an overall level, the value drivers are consistent with Lapiere (2000), that is, the value drivers relate to the three scopes of product, service, and relationship. Consistent with Ulaga’s (2003) criticism of the value drivers of Lapiere (2000), however, the value drivers within the benefit domain can be perceived as both benefits and sacrifices. In our investigation of value creation for the customer, we could not identify all categories of value drivers. We could not identify any value drivers belonging to the categories of “alternative solutions” (product), “flexibility,” “reliability,” “technical competence” (service) and “price” (sacrifice). A further discussion of the categories that should be included, with a special emphasis on the role of price in the perception of value, is presented later in this paper.

When all value drivers for the customer of public transportation are considered, “adjustments of traffic” and “relationship with the user” are the most frequently mentioned value creators. Further, “vehicle quality” and “PTA’s relationship with user” are the most frequently mentioned value destroyers. All value drivers identified for the customer of public transportation can be shown in Table II.

*Value creation in a business-to-business relationship*

Altogether, 155 value drivers were revealed concerning the relationship between the PTA and the operator of public transportation. The 11 categories of value drivers, that is, five benefits and six sacrifices, are related to the product, service, and relationship scopes within the benefit domain as well as within the sacrifice domain (Table III).



**Figure 1.**  
The distribution of value  
drivers for the  
business-to-business and  
business-to-customer

	Scope		
Domain	Product	Service	Relationship
Benefit	<i>Product quality</i>	<i>Responsiveness</i>	<i>Image</i>
	Safety belts and alcohol locks (4)	Communication (3)	Monetary advantage (1)
	Vehicle quality (4)	Information (3)	<i>Trust and solidarity</i>
	<i>Product customisation</i>	Managing customer complaints (3)	Relationship (6)
	Adjustments of traffic (10)		
Sacrifice	Timetables (1)		
	<i>Product quality</i>	<i>Responsiveness</i>	<i>Time/effort/energy and conflict</i>
	Poorly functioning ticket machines (1)	Information (3)	Relationship between the PTA and users (6)
	Vehicle quality (10)	Managing customer complaints (2)	Relationship between the PTA and the owners (3)
	<i>Product customisation</i>	<i>Reliability</i>	Negative attitude between the PTA and operator affects the passengers (1)
	Timetable (errors) (1)	Handling of goods (1)	
		Maintenance of bus stops (1)	

**Table II.**  
Value creation:  
business-to-customer

**Note:** The numerical data within brackets indicate the number of observations of the value driver

Concerning value creation in a business-to-business relationship, some categories of value drivers in Lapierre's (2000) conceptual model of value could not be identified. In the benefit domain, none of the value drivers related to the "product" scope was addressed. In relation to the "service" scope, the "flexibility" value driver was not included and thus not perceived as a benefit. As in the previous case, the "price" category was not perceived as a sacrifice. Furthermore, the categories of value drivers within the benefit domain can be perceived as both benefits and sacrifices, which illustrate similar results as in value creation for the customer of public transportation.

When all value drivers are considered in the business-to-business relationship, both "relationship between the PTA and operator" and "communication" are the most frequently mentioned value creators. The most frequently mentioned value destroyers are "communication deficiencies" and "lack of a comprehensive view." All value drivers in the business-to-business relationship can be shown in Table III.

### Conclusions and discussion

This paper makes several contributions to quality theory and practice. First, we focus on value and value creation. Value has a long tradition in quality management, but recently it has been ignored. Value as a concept has re-appeared in marketing, and industrial marketing in particular, and by making connections to quality management we believe that this research stream can move forward. Second, we study value in the context of outsourced service provision. Even though outsourcing of services is an increasing phenomenon in practice, it has not been extensively investigated in research studies and there is a lack of theories to explain the phenomenon (Baltacioglu *et al.*, 2007; Balakrishnan *et al.*, 2008). We view our empirical investigation as a first step in improving our understanding of the problems and possibilities in value creation when service provision has been outsourced.

Our research has scrutinised Lapierre's (2000) conceptual model of value and tested it in a new empirical context in two different types of relationships – value creation for

			Value creation in service provision	
Domain	Product	Service	Relationship	
Benefit		<i>Responsiveness</i>	<i>Trust and solidarity</i>	<b>525</b>
		Communication (6)	Relationship (11)	
		External information (1)	Cultural changes (3)	
		<i>Reliability</i>	Openness for suggestions (1)	
		Capacity at operator (3)	Organisational changes at PTA (1)	
		Routines for controlling operators (2)	<i>Image</i>	
		Clear routines at PTA (5)	Professionalism (2)	
		<i>Technical competence</i>		
		Traffic planning (1)		
Sacrifice	<i>Product quality</i> Poorly functioning radio system (1)	<i>Flexibility</i>	<i>Time/effort/energy and conflict</i>	
		Bureaucracy (2)	Relationship deficiencies (11)	
		Hierarchy: (3)	Attitude problems (6)	
		Inflexibility (6)	Personal related problems (3)	
		<i>Reliability</i>	Lack of engagement (2)	
		Traffic planning (7)	Unprofessional managing (5)	
		Indistinct routines (13)	Outlook (1)	
		Lack of comprehensive view (16)		
		Quality follow-up (5)		
		Handle customer complaints (1)		
		Internal problems (6)		
		<i>Responsiveness</i>		
		Delays in traffic orders and payments (5)		
		Communication deficiencies (22)		
		Information (2)		
		<i>Technical competence</i>		
Lack of knowledge concerning traffic (2)				

**Table III.**  
Value creation:  
business-to-business

**Note:** The numerical data within brackets indicate the number of observations of the value driver

customers and value creation in a business-to-business relationship. On an overall level, our findings show that both perceived benefits and sacrifices are related to the scopes of product, service, and relationship. For value creation for customers, ten categories of value drivers were revealed – five benefits and five sacrifices. Furthermore, for value creation in a business-to-business relationship, 11 categories of value drivers, five benefits and six sacrifices, were revealed. On the category level, not all categories of value drivers could be identified in our study or some categories were given a different role in this empirical context. Consistent with previous research, we find that all benefits can be perceived as both benefits and sacrifices. In particular, multiple value destroyers relate to the service aspects. We argue that based on Ulaga (2003), Witell *et al.* (2007), and the present research, the dual role of all value drivers into the three scopes of product, services, and relationships should be taken for granted when operationalising the value concept.

Contrary to the traditional view of value, in this study price is not perceived as a sacrifice that concerns either value creation for customers or value creation in the business-to-business relationship. On the contrary, price, or in this case “monetary

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advantage,” is perceived as a value creator for customers of public transportation. One explanation for this perception is that value is a relative concept, perceived in comparison to another object or situation; in this particular case, the respondents compared public transportation to travelling individually in private cars. If the study had used previous price as a comparison or made the comparison to travelling by bicycle, probably price would have been seen as a sacrifice.

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As in all studies, our empirical investigation of value in outsourced service provision has its limitations. First, we focus on a specific case so it is not the specific value drivers that can be generalized through statistics. Instead, we argue for theoretical generalization of our observation of value destruction belonging to the prerequisites and the business relationship together with our further development and empirical validation of the value concept.

#### *Managerial and policy implications*

Our empirical investigation of value creation in public transportation reveals that there are certain prerequisites that inhibit value creation for passengers. Furthermore, service provision has been outsourced to a number of private operators and the different actors have different interests: the PTA have a managing control system based on the contractual governance agreement and the private operators have a production-oriented approach that focuses on rationalising costs that has led to a low-service level (Enquist, 1999; Enquist *et al.*, 2005). Consequently, there are many value leaks in the system and thus the different actors in the value creation network cannot provide the passengers of public transportation with a high-service level. To change this situation and close some of the value leaks, the PTA has improved its way of choosing operators. This change means that contracts for operators are now not only rewarded based on lowest costs, but also on quality and strategies for quality management. The idea is to remove some of the rigidities in the system and create a system for outsourced service provision that is dynamic and has a service level that improves over the contract period.

The PTA and operator's perception of the value-creation processes in the two domains were similar, although there were some differences that can be explained by the character of their business position in the value chain. Since the PTAs do not have a direct relationship with the passengers, they depend on the operators to provide high-product quality (e.g. clean and secure vehicles), high-service quality (e.g. precise time of departures), a positive attitude towards the passengers, high safety on the road, correct information and a positive opinion towards the PTA in society. The PTAs' business strategies concerning value creation will be put into practice only if there is collaboration with the operators. As to the differences in perception of value creation by the PTA and operator, the "quality of vehicles" was frequently mentioned by the respondents at the PTA as a value destroyer, which in contrast was not mentioned by the respondents at the operator. The operators, on the other hand, are dependent on the PTAs for traffic orders, payments, the maintenance of diverse equipment, such as radio systems in vehicles and ticket machines, etc. They saw that the communication routines could be improved with more meetings and regular communication. As the PTA has business relationships with 80 operators (bus, train, and taxi operators), the time reserved for communicating with one particular operator is limited. This restriction explains why the PTA did not perceive communication as a value destroyer to the same extent as the operator.

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The results of this study show many value leaks and consequently a need to improve value creation for passengers in this outsourced service provision setting. The two business partners, the PTA and the operator, need shared business strategies and a comprehensive view of their common customers – the passengers.

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