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# Aspects of Information Strategy Formulation for CustomerOrientation

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## Aspects of Information Strategy Formulation for Customer Orientation

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### Abstract

Economic transactions are vulnerable to the hazards of both bounded rationality and opportunistic behaviour. These hazards are encountered in the form of information problems that have to be dealt with before, during and after the agreement on a transaction. The three information problems discussed in this paper can be exploited by either of the parties involved in the transaction for strategic purposes. Information strategy is then described as the way organizations deal with these information problems. This research analyses what aspects customer-oriented organizations can take into account when formulating an information strategy.

**Keywords:** information strategy, information imperfections

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## 1. Introduction

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This research aims at improving the understanding of the traditional business - IT relationship (as for instance described by the Strategic Alignment (SA) model (Henderson and Venkatraman, 1993)) by analyzing the concept of *information strategy* as an intermediary between business strategy and IT strategy. While the SA model omits the intrinsic distinctive possibilities of information for strategy, this research intends to focus explicitly at the strategic use of information in organizations, not at the IT used to support it. Furthermore, the main reason for introducing the concept of information strategy is to provide for a theoretical linkage between transaction cost theory and strategic management thinking.

## 2. Theoretical Framework

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The theoretical foundation of this research is based on two theories: transaction cost economics and the resource-based view of the firm. Both theories address the question why firms exist and provide complementary answers to this important economic issue. The theoretical framework presented here attempts to connect both theories through the introduction of the concept of information strategy.

### 2.1 Behavioural Assumptions

The Behavioural assumptions this theoretical framework ascribes to humans, i.e. bounded rationality and opportunism, are taken from transaction cost economics. Bounded rationality points out two inabilities of humans. It “(...) involves *neurophysiological limits on the one hand and language limits on the other*” (Williamson, 1975, p.21). This explains limited rational information behaviour (cf. Simon, 1955). “*Instead of a complete search for all relevant information, the decision-maker only tries to attain a subjectively satisfying, yet incomplete level of information*” (Wigand, et al., 1997, p.75). This kind of Behaviour is described as *satisfying*, i.e. searching for a solution that meets aspiration levels and is therefore acceptable.

Humans are not only bounded rational, they are also assumed to sometimes display opportunistic Behaviour. Williamson describes opportunism as “*self-interest seeking with guile*” (...) involving “*self-disbelieved threats and promises*” in order to realize individual advantages (Williamson, 1975, p.26). These advantages can be due to “*selective and distorted information disclosure or self-disbelieved promises regarding future conduct*” (Williamson, 1975, p.26). The assumption is that while not all humans behave opportunistically, it is difficult to predict beforehand whether they will or will not behave as such.

## **2.2 Information Problems**

These two behavioural assumptions about humans reflect on the way transactions between buyers and sellers take place. Opportunistic behaviour and bounded rationality are the main causes for *information problems* in transactions (cf. Douma and Schreuder, 1992).

Information problems can be described as instances in which the intentions of at least one of the partners involved in a process of information exchange are not met as a consequence of the incompleteness or unequal division of information residing at one or more of the parties involved.

Three types of information problems can be distinguished, i.e. problems caused by:

- incomplete information,
- uncertain information,
- information impactedness (Williamson, 1975, p.31)

The problem of incomplete information is related to the Behavioural assumption of bounded rationality. The problem this poses on a transaction is the impossibility to account for all possible outcomes in drawing up a contract causing incomplete contracts.

The problem of uncertain information stems from the language problem associated with bounded rationality (Williamson, 1975, p.22). Even in the case that all the relevant contributing causal factors can be identified and complete information could be collected, different interpretations of this information can lead to uncertainty concerning the outcome of a certain event. This again, is a cause for incomplete contracts. Furthermore, if the buyer and seller's interpretation of an aspect of the transaction differ, this can lead to conflicts, raising the transaction costs.

A transaction with an asymmetrical distribution of information over the parties is subject to hazard. *"The critical impact of information on the optimal allocation of risk bearing is not merely its presence or absence but its inequality among economic agents"* (Arrow, 1969 in Williamson, 1975, p.31). Williamson adds two conditions under which information asymmetry results in information impactedness: *"(a) high costs of achieving information parity and (b) the proclivity of parties to behave opportunistically"* (Williamson, 1975, p.31). Information impactedness can pose a problem on the transaction in the form of selective disclosure or distortion of data, e.g. *adverse selection* and *moral hazard* (cf. Arrow, 1984). *Asymmetries or lack of information, without the hazard of opportunism, could be overcome by filling the lacunae left behind by incomplete contracts (...). However if opportunism is admitted as a Behavioural property of transactors, then the production and use of information may be the object of misrepresentation for strategic purposes* (Ciborra, 1993, p.115).

The three information problems discussed are all consequences of problems of unobservability caused by uncertainty and/or complexity, which can be exploited by either of the parties involved in the transaction for strategic purposes.

### **2.3 Information Strategy**

Unfortunately, transaction cost theory does not allow for information problems to exist. Since it is the theory's ultimate goal to strive for the most efficient way to co-ordinate transactions, information problems should be solved because they cause an increase in transaction costs, i.e. a less efficient economy. However in practice, information problems are the basis for competitive advantage for most organizations and form the basis for their strategies and business models. Solving the information problems would imply a decrease in competitiveness. On the other hand, if transaction cost theory would allow for the existence of information problems as the basis for strategy, it would have to elaborate on the concept of strategy. This reveals a second critique, which Williamson (1999) agrees on: transaction cost theory lacks an understanding of the concept of strategy. The concept of information strategy can fill this lacuna and hence provide the missing link between transaction cost theory and strategic management thinking.

Accounting for the critique raised above, the resource-based theory of the firm does allow for information problems to exist and elaborates on the concept of strategy. *The resource-based theory is an attempt to explain and predict why some firms are able to establish positions of sustainable competitive advantage and, in so doing, earn superior returns. The resource-based view perceives firms as unique bundles of idiosyncratic resources and capabilities where the primary task of management is to maximize value through the optimal deployment of existing resources and capabilities (...)*" (Grant, 1996, p.110). Deploying these existing resources and capabilities is believed to be the foundation of a long-term strategy because "*internal resources and capabilities provide the basic direction for a firm's strategy*" and they are "*the primary source of profit for the firm*" (Grant, 1991, p.5).

With regard to information problems this implies not to solve information problems by definition to lower the overall transaction costs. Instead, the way of dealing with information problems can be regarded as a source of competitive advantage and thus the subject of strategy formulation. Information problems provide a strategic opportunity based on organisation-specific information resources and capabilities.

### 3. Research Design

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#### 3.1 Relevance

The theoretical relevance of this research lies in complementing both transaction cost theory and the resource-based theory. Where the former omits to deal with information problems as a basis for strategy, the latter omits explaining what the sources for competitive advantage based on information are.

The practical relevance lies in providing organisations with a theoretically grounded overview of strategic aspects of information exchange processes with their stakeholders, e.g. their customers.

Customer-oriented organisations that aim for understanding customer needs and building long-term relationships over a series of transactions also face the strategic opportunity of information problems. Dealing with these information problems means addressing the issue of unobservability of either of the parties, which requires purposeful information exchange about this party's behaviour. In formulating an information strategy, customer-oriented organisations face the difficulty of deciding in what way and to what extent to deal with the existing information problems while remaining a long-term customer orientation.

#### 3.2 Questions

The subject of this study is to examine the choices customer-oriented organisations make when formulating an *information strategy* that copes with the above consideration. This results in the following research questions:

- In what way can the concept of information strategy provide for the link between transaction cost theory and strategic management thinking?
- What aspects are taken into account when formulating an information strategy for customer orientation?
- Why are specific choices regarding these aspects made in the cases that are studied?

#### 3.3 Strategy

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A possible research strategy is first aiming at a set of possible aspects of information strategy. This list of possibly relevant aspects of information strategy will be empirically tested by conducting several exploratory case studies. The case studies will aim at theoretical diversity. This means that the cases will be selected across a range of information-intensive and customer-oriented industries in Holland such as, banking and insurance, tax authorities, grocery shops and employment. Within each company

the primary source of evidence will be provided by interviews with both business management and information management.

### **3.4 Expectations**

The expectation is that customer-oriented companies certainly have an information strategy for the way they interact with their customers. However, this information strategy is hardly ever made explicit, nor is clear what the range of possible aspects of information strategy is.

Table 1 lists a set of possible information strategy aspects. This list is based on anecdotal evidence and partly derived or translated from notions of business strategy.

<b>Aspect</b>	<b>Description</b>
Scope	<b>the content of the information that is exchanged</b>
Orientation	the central concept around which the information is centred (e.g. product, process, customer, activities or geographic regions)
Initiative	the mode of controlling the exchange of information between organisation and other parties (push/pull/reactive/mix)
Relationships	the relationships with information suppliers/users
Governance	the responsibility for the quality/timeliness/correctness of the information
Timing	the time/frequency at which the information exchange is required
Degree of customisation	the degree to which different parties are addressed in different ways

*Table 1 Possible aspects of information strategy*

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**ABSTRACT:** Economic transactions are vulnerable to the hazards of both bounded rationality and opportunistic behaviour. These hazards are encountered in the form of information problems that have to be dealt with before, during and after the agreement on a transaction. The three information problems discussed in this paper can be exploited by either of the parties involved in the transaction for strategic purposes. Information strategy is then described as the way organizations deal with these information problems. This research analyses what aspects customer-oriented organizations can take into account when formulating an information strategy.

**KEYWORDS:** information strategy, information imperfections

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