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## RESEARCH ARTICLE

### **Antecedents of market orientation in semi-public service organizations: A study of Dutch housing associations**

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*The purpose of this study is to explain which factors affect the market orientation of semi-public service organizations in their transition from public to private. Change capacity, interdepartmental and organizational system factors are hypothesized to affect market orientation, which is operationalized in behavioural and cultural dimensions. Results of a survey among top-level executives of Dutch housing associations show that interdepartmental and organizational system factors have a significant effect. The most important antecedents, however, are two change capacity factors: process improvement control and top management emphasis. This suggests that change capacity is crucial for understanding market orientation in many service industries.*

**Keywords:** services, semi-public, market orientation, privatisation, change.

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## **Antecedents of market orientation in semi-public service organizations: A study of Dutch housing associations**

### **Introduction**

Over the last two decades, public sectors in many Western countries have been pushed to increase efficiency and customer satisfaction (Boyne, 2002; Ferlie, Hartley, & Martin, 2003; Osborne & Gaebler, 1992). Consequently, public organizations have been forced to become more market-oriented (Box, 1999; Jas & Skelcher, 2005). Market orientation refers to the organizational skills to understand and satisfy customers (Day, 1994). Parallel to these calls for market orientation, but with largely the same aims, many public service organizations were partly privatized in domains such as health care, public transport, postal services, and housing (Ferrari, 2006; Karppi & Haveri, 2009; Zahra, Ireland, Gutierrez, & Hitt, 2000). Waves of privatization have created a substantial new class of service organizations, labelled as semi-public. Semi-public service organizations are subjected to the discipline of the market while still partly under governmental control (Collier, 2005). At a certain point in time, such organizations found themselves in a private market as a result of government policy changes, but were often still subject to meeting public goals. In addition to public forces, market forces came into play to determine the prices and quality of offerings, and ultimately the revenues. The transition from public to private thus obliged formerly public organizations to better understand and satisfy customers. As a result, semi-public service organizations have changed incentives and structures (Cuervo & Villalonga, 2000; Zahra, et al., 2000), which may have led to more market orientation.

The purpose of this paper is to empirically investigate the antecedents of market orientation of semi-public service organizations. Many semi-public service organizations experience difficulties in becoming market oriented, because their predominantly public

mindsets and structures are hindrances in the change process (Ferlie, et al., 2003). Also, private management principles and practices may not necessarily work in an organization that is still partly under public control (Box, 1999; Boyne, 2002). However, studies on the antecedents of market orientation in semi-public service organizations are scarce. Extant research has mostly addressed the antecedents of market orientation in private organizations (e.g., Avlonitis & Gounaris, 1999; Jaworski & Kohli, 1993; Kirca, Jayachandran, & Bearden, 2005). It is imperative that we study structures, systems and behaviours of organizations in transition from public to private, because they have the potential to redefine the interaction between firms and society (Zahra, et al., 2000).

Furthermore, research on the antecedents of market orientation in semi-public service organizations is important because a market orientation is likely to improve performance. Market orientation has a positive effect on organizational performance across various private contexts (Kirca, et al., 2005; Rodriguez Cano, Carrillat, & Jaramillo, 2004) and in public contexts, where political mechanisms rule in addition to or in lieu of economic mechanisms (Cervera, Mollá, & Sánchez, 2001; Shoham, Ruvio, Vigoda-Gadot, & Schwabsky, 2006).

This study contributes to the services literature in three ways. First, it enhances our knowledge of the antecedents of market orientation in service organizations whereas extant research has mainly investigated the consequences of market orientation. Second, it increases our understanding of structures, systems and behaviours of service organizations in transition from public to private. Whereas other studies focused on either public or private service organizations, we take Dutch housing associations that are in transition from public to private as our empirical context to study semi-public service organizations. Third, this study points at the importance of change capacity factors for market orientation in a service industry. In particular, it shows that the level of control over quality and improvements in key processes –

a factor largely overlooked in earlier empirical research in market orientation – is crucial for becoming market-oriented.

## **Literature review**

### ***Conceptualization of market orientation in semi-public service organizations***

Studies on perspectives of market orientation in semi-public service organizations are lacking. In the academic literature on private profit organizations a behavioural and a cultural perspective on market orientation are found to be essential (Homburg & Pflesser, 2000; Kirca, et al., 2005; Matear, Gray, & Garrett, 2004). From a behavioural perspective, market orientation is regarded as a range of activities, i.e., the organization-wide generation and dissemination of, and responsiveness to market information (Kohli & Jaworski, 1990). From a cultural perspective, market orientation is seen as a shared set of values and beliefs that are aimed at creating customer value superior to that of competitors (Narver & Slater, 1990). In studies on public or private non-profit organizations market orientation is also conceptualized from both perspectives (Shoham, et al., 2006). Some authors view an organization as ‘market-oriented’ if it displays behaviour that corresponds to a market mechanism (as opposed to a social or political mechanism), such as adjusting prices, targeting other than pre-specified customers and diversifying into new product-market combinations (Gruis & Nieboer, 2007). Others view market orientation as a culture that puts the customer in the centre, aimed at maximizing customer satisfaction (Box, 1999; Jas & Skelcher, 2005; Osborne & Gaebler, 1992; Walsh, 1994). The underlying assumption here seems to be that exposure to some form of market mechanism leads to improved customer management processes and thus improved customer satisfaction. Both the behavioural perspective and the cultural perspective have relevance in the context of semi-public service organizations. Multiple theoretical perspectives are suggested to capture the ambiguities and complexities in

the hybrid organizations in between market and hierarchical governance (Borys & Jemison, 1993).

The academic literatures on service organizations emphasize customer orientation as the dominant element of market orientation in service organizations, compared to a competitor orientation (Cervera, et al., 2001; Tsiotsou, 2010). A customer orientation includes customer satisfaction as performance dimension of service firms, but also includes customer focus as a separate dimension of market orientation (Esteban, Millán, Molina, & Martín-Consuegra, 2002; Kasper, 2002; Maydeu-Olivares & Lado, 2003). In the field of public management, market orientation is also primarily viewed as satisfying customers (Box, 1999; Jas & Skelcher, 2005; Osborne & Gaebler, 1992). The customer dimension is often specified in the sub-domains of for example citizens (Cervera, et al., 2001), and beneficiaries and donors (Balabanis, Stables, & Phillips, 1997; Macedo & Pinho, 2006; Vázquez, Álvarez, & Santos, 2002). Most public sector and non-profit studies omit competitor orientation as an aspect of market orientation, as competitors are not present in the public market. The competitor dimension is either completed with collaborating partners (Vázquez, et al., 2002), is left to exogenous influences (Balabanis, et al., 1997) or is left out (Cervera, et al., 2001; Macedo & Pinho, 2006). This suggests that adjustments to market orientation to the specifics of semi-public service organizations are necessary.

### ***Antecedents of market orientation***

Antecedents of market orientation have predominantly been investigated within the private sector (see table 1). In their meta-analysis, Kirca *et al.* (2005) have found support for antecedents of market orientation at the level of top management (emphasis), departments (conflict and connectedness) and organizational systems (formalization, centralization, and market-based reward systems). It is only recently that some attempts have been made to

include antecedents that reflect the capacity to change, for example learning culture (Cegarra-Navarro & Rodrigo-Moya, 2007). It has been suggested that the effects of organizational antecedents on market orientation are robust across different contexts (Jaworski & Kohli, 1993). So far, these antecedents have not been tested for semi-public service organizations.

**(Table 1)**

Researchers in the non-profit and public sectors have rarely studied the organizational antecedents identified above, but have instead focused on antecedents thought to be typical for these sectors. Such antecedents include characteristics of governing politicians of local governments (Cervera, et al., 2001), the professionalism of senior managers (Wood, Bhuiyan, & Kiecker, 2000), and the source of funding in the context of non-profit organizations (Macedo & Pinho, 2006). These studies highlight the role of management in enabling the changes needed for increasing the market orientation of semi-public service organizations. Semi-public service organizations are likely to have stronger inertial forces than private organizations, because as former public organizations they tend to be more bureaucratic and their managers tend to be less materialistic and organizationally-committed (Boyne, 2002). Much of the pressure to initiate change, to develop change programs and to control improvement processes is likely to rest on the shoulders of the managers in charge (Whittington, McNulty, & Whipp, 1994).

Based on the above, we conclude that for semi-public service organizations, the capacity to change seems even more important than for other service organizations. We also conclude that in addition to interdepartmental and organizational system factors found by Kirca *et al.* (2005), three aspects of change capacity may be relevant for becoming more market-oriented: the unwillingness, ability, and eagerness to change. First, *risk aversion* of managers – representing the unwillingness to change – frequently is a determinant of change in general (Judge, Thoresen, Pucik, & Welbourne, 1999) or market orientation in particular

(Avlonitis & Gounaris, 1999; Jaworski & Kohli, 1993). Second, *process improvement control* – representing the ability to change – is likely to affect market orientation, though it has not been included in previous empirical studies. Process improvement control refers to the degree to which management controls the quality and improvement of key processes of market orientation (Day, 1994). Third, *top management emphasis* – representing the eagerness to change – affects market orientation (Kirca, et al., 2005). This refers to the role of managers emphasizing the relevance of the change goal, in this case market orientation, in their communication to employees. Similarly, the role of managers in emphasizing organizational learning values is critical in building learning capabilities (Morgan & Turnell, 2003).

### **(Figure 1)**

#### **Conceptual model and hypotheses**

We will briefly discuss the hypothesized effects on market orientation (see conceptual model in Figure 1).

#### ***Change capacity factors***

*Risk aversion* is the lack of willingness by the management to take risks and is rooted in the intolerance of failure. According to Judge *et al.* (1999) risk aversion is a strong determinant of managerial response to organizational change. Empirical studies in the private sector show mixed results: no significant effect (Pulendran, Speed, & Widing, 2000), a significant negative partial effect (Jaworski & Kohli, 1993), and a significant negative effect (Avlonitis & Gounaris, 1999). In semi-public service organizations, risk aversion may be an important factor. It may result from a lack of goal clarity in public organizations (Bozeman & Kingsley, 1998). Goal clarity in semi-public service organizations is likely to be low due to ambiguity caused by combining social and economic goals (Gruis, 2005). When faced with such



ambiguity in the transition process managers are more likely to focus on easy-to-achieve and low-risk goals. In organizations with high risk aversion, managers do not stimulate diverse opinions and do not accept failures. In such organizations, for example, front office employees are discouraged to suggest service improvements based on information from customers they acquire from daily practice. Consequently, we formulate:

*H1: Risk aversion has a negative impact on the market orientation of semi-public service organizations.*

*Process improvement control* is defined as the degree to which an organization has control over the quality and the improvement of key processes and is rooted in the Total Quality Management literature (Conca, Llopis, & Tarí, 2004; Powell, 1995). The transition to a more market-oriented organization involves emphasizing external objectives, such as customer satisfaction, in the management of key processes, for example the service delivery process (Day, 1994). ‘These objectives become the basis for a measurement and control system that monitors progress toward the objective’ (Day, 1994, p. 42). Such a measurement and control system thus enables the organization to strategically adjust key processes to a changing environment. While public organizations emphasize internal hierarchical control (Bozeman & Kingsley, 1998; Pugh, Hickson, Hinings, & Turner, 1968), semi-public service organizations, in their transition from public to private, are likely to embrace control mechanisms that continuously improve service processes in search for operational excellence and customer satisfaction (Cuervo & Villalonga, 2000). Process improvement control is likely to facilitate implementing and refining behaviour associated with market information processing and could ensure that employees ‘put the customer first’. Therefore we state the following:

*H2: Process improvement control has a positive impact on the market orientation of semi-public service organizations.*

*Top management emphasis* is the degree to which top managers stress the importance of market orientation and is based on the notion that top managers affect the organization's values and beliefs (Webster, 1988) as well as the strategic choices and outcomes (Hambrick & Mason, 1984). If top managers emphasize the importance of market orientation this may become common ground for the organization and its employees (Day, 1994; Narver & Slater, 1990). Top management emphasis has a positive impact on market orientation in general (Kirca, et al., 2005), and in the public sector specifically (Cervera, et al., 2001). If, for example, managing directors of semi-public service organizations stress the importance of understanding the needs of customers, rather than following government policy objectives, employees may be more likely to gather and share information on customers and be responsive to them. Therefore:

*H3: Top management emphasis on market orientation has a positive impact on the market orientation of semi-public service organizations.*

### ***Interdepartmental factors***

The departmental structure is likely to differ between private and public organizations (Balabanis, et al., 1997; Pugh, et al., 1968). Whereas in private organizations tensions arise between the marketing and R&D or manufacturing department (Maltz, Souder, & Kumar, 2001), in semi-public service organizations conflict may arise between policy departments, technical departments and frontline communication departments. The potential for conflict in semi-public service organizations may be stronger due to changes in organizational structure on the road to privatization (Cuervo & Villalonga, 2000; Zahra, et al., 2000).

*Interdepartmental conflict* – the degree of conflict that exists between departments – may

seriously hamper a department to share market information with another department and respond to this information (Jaworski & Kohli, 1993; Kirca, et al., 2005; Pulendran, et al., 2000). Therefore, we propose:

*H4: Interdepartmental conflict has a negative impact on the market orientation of semi-public service organizations.*

*Interdepartmental connectedness* refers to ‘the degree of formal and informal direct contact among employees across departments’ (Kohli & Jaworski, 1990, p. 9). Here contact frequency, joint information collection efforts, shorter distances, and sender trust play an important role. It induces information sharing and interaction between departments and thus market orientation (Jaworski & Kohli, 1993; Kirca, et al., 2005; Maltz & Kohli, 1996; Pulendran, et al., 2000). Therefore, we propose:

*H5: Interdepartmental connectedness has a positive impact on the market orientation of semi-public service organizations.*

### ***Organizational systems***

Consistent with Boyne’s (2002) observation of public organizations, semi-public service organizations were originally governmental organizations that were known for their formal bureaucratic structures and their less materialistic managers. On the road from public to private, bureaucratic rules are reduced, structures are flattened and decentralized, and reward systems are likely to change to market-based incentives in order to respond to new market developments and customer needs (Cuervo & Villalonga, 2000; Zahra, et al., 2000).

Therefore, though results of previous private sector studies are not all positive (see e.g. Jaworski & Kohli, 1993; Kirca, et al., 2005; Pulendran, et al., 2000), we suggest effects for both formalization and decentralization. If *formalization* – the degree to which rules

determine behaviour (Hall, Haas, & Johnson, 1967) – is strong, it may hinder the continuous change in communications, roles, authority and procedures in order to respond to market information. If *decentralization* – the degree of decision-making delegation and participation (Aiken & Hage, 1968) – is strong, the more the employees, especially front office employees, are likely to be market-oriented. Therefore, we propose:

*H6: Formalization has a negative impact on the market orientation of semi-public service organizations.*

*H7: Centralization has a negative impact on the market orientation of semi-public service organizations.*

*Market-based reward systems* refer to schemes that reward individuals or groups within the organization based on market-based outcomes, which may include the use of market research, customer satisfaction and service quality, and relative competitor positions. Private sector research to date demonstrates that the reward system shapes employee behaviour, in particular market-oriented behaviour (Jaworski & Kohli, 1993; Kirca, et al., 2005; Pulendran, et al., 2000). Public sector research shows that managers in public organizations are less materialistic (Boyne, 2002) and therefore relatively insensitive to reward systems. The transition from public to private is likely to change the reward systems of semi-public service organizations towards outcome and market-based incentives (Cuervo & Villalonga, 2000; Zahra, et al., 2000). Managers are likely to become more sensitive to these changing reward systems, and adjust their behaviour to match market-based incentives. Therefore, we propose:

*H8: The use of market-based reward systems has a positive impact on the market orientation of semi-public service organizations.*

## **Methods**

### ***Research Setting***

Housing associations in the Netherlands are chosen as they are in the process of change towards more market orientation and represent the hybrid character of semi-public service organizations. Since the 1990s, housing policy reforms cut government financing and forced housing associations to finance all activities through the market (Priemus & Dieleman, 2002; van Kempen & Priemus, 2002). As a result, housing corporations followed commercial goals by developing market driven projects which would enhance their market performance, while at the same time having to fulfil social goals by providing sufficient affordable housing (Gruis, 2005). The data for this study were collected in 2005, when the transition process was ongoing.

Established to provide affordable housing, Dutch housing associations are non-profit bodies with non-elected managers which are in the middle of public-private continuum. The position on this continuum is determined by looking at three aspects (Bozeman & Kingsley, 1998; Perry & Rainey, 1988). *Ownership* of Dutch housing associations is private, but the national government issues the licences needed to get access to the housing market. *Funding* of social housing projects is private, but the national government provides subsidies for low-income tenants. *Control* is in the hands of both the national government and the management board. The government regulates housing rent increases and sets the social housing goals the associations need to meet. The management board has the freedom to design and implement strategies, structures and systems within these boundaries set by the government. A supervisory board acts on behalf of the government to audit whether goals are met.

### ***Data Collection***

Data were collected by a mail survey sent to 423 top-level executives (key informants) of housing associations in the Netherlands. Of the total of 527 Dutch housing associations in 2005, we only selected the housing associations with 500 housing units or more, because some of our variables (e.g., interdepartmental factors) do not make sense in very small housing associations (without separate departments). We received 104 usable responses. The response rate 24.6 percent is comparable to other similar studies (e.g., Raju & Lonial, 2001). Comparing the characteristics of our sample with government data on the research population of 527 housing associations revealed only minimal differences. Characteristics of early respondents did not differ significantly from those of late respondents; non-response bias is therefore not likely to cause problems. Furthermore, a procedure recommended by Schafer and Graham (2002) was followed and an expectation maximization algorithm employed to impute the missing data.

### **(Table 2)**

### ***Measures***

The Appendix contains details about the measures, including their reliability. To increase the validity of the measures, the results of a qualitative pre-study of two in-depth expert interviews were used to adapt some measurement items to the specific context. All scales in this study were based on five-point Likert scale items, with 1 = ‘strongly disagree’, and 5 = ‘strongly agree’. Descriptive statistics and a correlation matrix are reported in Table 2.

Following our review of the literature, market orientation was operationalized using three behavioural dimensions (information generation, information dissemination, responsiveness) and one cultural dimension (customer-focused culture). The first three dimensions are measured using improved scales originating from Kohli *et al.*'s (1993) MARKOR-scale

(Matsuno & Mentzer, 2000; Matsuno, Mentzer, & Rentz, 2000). The wording of several items was adapted to the research setting. For the fourth dimension, customer-focused culture, we developed a new scale using a selection of scale items of Deshpandé *et al.* (1993) and Homburg and Pflesser (2000).

Two scale items in the information generation scale, both referring to competition, displayed bad psychometric properties, such as high cross-loadings in exploratory factor analyses and low item-to-total correlations. Although both scale items had been reformulated to refer to ‘fellow housing associations/competitors’, to account for the result from our pre-study that a competitor is a badly understood concept in this setting, both items had to be dropped from scale construction. The resulting four scales for market orientation displayed satisfactory convergent validity and reliability, with Cronbach’s alphas between .696 and .800 (see Appendix).

To investigate the discriminant validity of our conceptualization of market orientation by four separate dimensions, a confirmatory factor analysis was performed using AMOS software. Although the sample size is limited, confirmatory factor analysis can be used, especially since all variables follow the normal distribution relatively closely. Eight alternative measurement models were estimated and compared to the proposed measurement four-factorial model. All eight alternative models are outperformed by the four-factorial solution ( $\chi^2 = 318.516$ , RMSEA = .064). Therefore, we conclude that the conceptualization of market orientation using a four-factorial structure is superior in our empirical context.

To investigate criterion-related validity of our four market orientation dimensions, multiple regression was performed with a measure of market performance as dependent variable and the four market orientation dimensions as independent variables. The analysis shows that 39.2% of all variance in market performance can be explained by the four dimensions. As this replicates existing findings in the literature (Kirca, et al., 2005;

Rodriguez Cano, et al., 2004), these results contribute to the validity of our conceptualization of market orientation.

The scales used for measuring the antecedents were all borrowed scales, with the wording of some items adapted to the research setting (see Appendix for details). The only exception is process improvement control, which was developed using items borrowed from Conca *et al.* (2004) and one newly developed item. All reliabilities (measured by Cronbach's alpha, see Appendix) are above .6, and most are above .7. Three items (one for interdepartmental connectedness, and two for formalization) were dropped because of high cross-loadings in exploratory factor analyses and low item-to-total correlations. After these items were deleted, all scales for the antecedents displayed satisfactory psychometric properties.

### (Table 3)

## Results

Regression analysis was used to test the hypotheses (see Table 3). To minimize the possible increase of Type I error associated with estimating four separate regression models, an omnibus test of the system of four equations was conducted, following the approach of Menon *et al.* (1999). The omnibus test results of a canonical correlation analysis shows that it is appropriate to estimate the four regression models (Wilks' Lambda = .196,  $F = 5.179$ ,  $p < .001$ ). Furthermore, the model fit for each of the four models is satisfactory, with  $R^2$  ranging from .350 to .430 and model tests showing F-statistics ranging from 5.617 to 7.869 (all significant with  $p < .001$ ). Multicollinearity diagnostics revealed no problems, with all variance inflation factors well within the acceptable range indicated by Hair *et al.* (1995), varying between 1.136 and 1.909.



H1 predicted that higher risk aversion leads to lower market orientation. We find only indicative results for risk aversion on information dissemination ( $\beta = -.171, p < .10$ ) and customer-focused culture ( $\beta = -.153, p < .10$ ). Although these effects are in the predicted direction, H1 is not supported. H2 predicted that process improvement control has a positive effect on market orientation. Process improvement control is found to be an important antecedent: it has a significant and large effect on information generation ( $\beta = .568, p < .001$ ), and information dissemination ( $\beta = .396, p < .001$ ), and a significant effect on responsiveness ( $\beta = .213, p < .05$ ), and customer-focused culture ( $\beta = .234, p < .05$ ). Thus H2 is supported for all dimensions of market orientation. H3 suggested that top management emphasis leads to higher market orientation. Results show that top management emphasis has a significant and rather large positive effect on information generation ( $\beta = .278, p < .01$ ), information dissemination ( $\beta = .283, p < .01$ ), responsiveness ( $\beta = .184, p < .05$ ), and customer-focused culture ( $\beta = .262, p < .01$ ). Thus H3 is supported for all dimensions of market orientation.

H4 predicted a negative effect of interdepartmental conflict on market orientation, which is supported only for the responsiveness dimension ( $\beta = -.427, p < .001$ ). According to H5, interdepartmental connectedness should have a positive effect on market orientation. Interdepartmental connectedness, however, has a significant negative effect on responsiveness ( $\beta = -.223, p < .05$ ), and a predicted significant positive effect on customer-focused culture ( $\beta = .262, p < .05$ ). Therefore, H5 is supported only for customer-focused culture. H6 predicted a negative effect of formalization on market orientation. The only significant effect of formalization on market orientation is, however, a positive effect on the information dissemination dimension ( $\beta = .211, p < .05$ ), which leads to no support for H6. According to H7, centralization should lead to lower market orientation, which was only supported for the responsiveness dimension ( $\beta = -.297, p < .01$ ). Finally, whereas H8 predicted

a positive effect of market-based reward systems on market orientation, this hypothesis is only supported for the customer-focused culture dimension ( $\beta = .203, p < .05$ ). The control variable, size of the housing association (measured as number of employees), has no influence on any of the four of the market orientation dimensions.

## **Discussion**

Since the 1970s, waves of privatization have transformed service industries. Although it may be questioned whether the market mechanism is suitable for *every* public service (Box, 1999; Ferrari, 2006; Walsh, 1994), many semi-public service organizations have come into existence and attempt to become more market-oriented. The goal of this study was to empirically investigate the antecedents of market orientation for such organizations. The results show that the concept of market orientation can be translated to the context of semi-public service organizations, albeit with some adjustments. We operationalized market orientation in semi-public service organizations including behavioural and cultural dimensions. It is indicative of the special context of semi-public service organizations, though, that we found several items referring to competitors to have low validity for measuring market orientation in our study. The results suggest that the behavioural and cultural dimensions should all be employed to comprehensively understand market orientation in semi-public service organizations, and that the essence of market orientation in this context is understanding and satisfying customers rather than competitors.

The main conclusion is that change capacity factors are crucial for understanding differences in the market orientation of semi-public service organizations. This constitutes a substantive contribution to the literature, because it provides insight in how organizations are

making the transition from public to private in many service industries. We will therefore elaborate on the three change capacity factors that we studied.

The most important change capacity factor, process improvement control, is crucial in understanding why some semi-public service organizations struggle to become more market-oriented, whereas others do not. Process improvement control – a hitherto unidentified antecedent in the private services as well as market orientation literature – was shown to have a strong impact on all four dimensions of market orientation. Continuous control of the quality and improvement of key processes reflects the ability and importance of strategic adjustment of key processes for becoming more market-oriented. This result extends the work of others who found that organization learning values are important for services organizations (Cegarra-Navarro & Rodrigo-Moya, 2007; Morgan & Turnell, 2003) and demonstrated the importance of a quality processes for hospitals (Raju & Lonial, 2001) to become market-oriented. Moreover, this result offers empirical support for the argument that process management by measurement and control is a key driver of becoming more market-oriented (Day, 1994). Thus, this result may very well extend to other service organizations and even manufacturing firms.

Top management emphasis, the second-most important change capacity factor, was also found to have an effect on all four dimensions of market orientation. It represents the eagerness of top managers to make the organization more market-oriented by repeatedly communicating the importance of market orientation aspects to employees and higher echelons involved. Kirca *et al.* (2005) already found robust support for the emphasis top managers put on the importance of being market-oriented in firms. This appears to be even stronger in semi-public service organizations that struggle with larger inertia of former civil servants concerning organizational change, trusting the market system, and getting closer to customers. This finding builds on results from studies that stress the importance of top

management in other change processes, such as the role of managers in market-driven change in professional services (Whittington, et al., 1994) and in installing learning competences (Morgan & Turnell, 2003), and the importance of leadership styles in public organizations (Jas & Skelcher, 2005).

A somewhat surprising result is the lack of significant effects of risk aversion, the final change capacity factor, on market orientation. Risk aversion was theorized to be an important antecedent given the transition process that semi-public service organizations are undergoing. Managers' risk aversion appears not to be such an important barrier to become more market-oriented. This may be explained by moral hazard (Holmström, 1979), beliefs of housing association managers that local or national government will provide a bail-out if housing associations run into trouble, given the societal importance of providing affordable housing.

Results for the other five antecedents in our study partly replicate the findings of Kirca *et al.* (2005) for semi-public service organizations. Each antecedent has an effect on at least one dimension of market orientation, confirming the relevance of the set of antecedents. We find two effects, however, that are not in the predicted direction. Interdepartmental connectedness, although it has a positive effect on customer-focused culture, has a negative effect on responsiveness. This suggests that more connections between departments can lead to mobilized resistance of several departments against market-oriented responses to market developments. Formalization has a positive effect on information dissemination where a negative effect was predicted. This suggests that the organizations in our sample had implemented formal rules *about* disseminating market information, rather than rules that hinder the transition toward more market orientation by making the organization less flexible.

### ***Managerial Implications***

The most important implication for managers of semi-public service organizations striving to become more market-oriented is that they need to control the quality and improvement of key processes. This involves primary and supporting processes such as strategy development, service delivery, new service development, and after-sales and maintenance services. It especially involves the processes where customer contact is involved. By careful measurement and control of key processes, managers have a powerful tool to direct employees toward achieving market-oriented objectives (Day, 1994). Not only does it shape the market information processing behaviour including collecting and disseminating market information and being responsive to it. It also affects the values needed for a customer focus that are relevant in a service context, especially semi-public services. Second, top management of semi-public service organizations needs to stress the importance of a market orientation by spreading the word. Spreading the word will make employees aware of the need to change. It also commits them to changes needed and can help them think of ways to increase market orientation in all its aspects (Jaworski & Kohli, 1993). Furthermore, in many ways managers have to support the improvements of processes in shaping aspects of market-oriented behaviours and culture. This not only concerns carefully managing conflicts and connectedness between departments but also adjusting the organizational structures and systems involved.

### ***Limitations and Further Research***

Our study has several limitations, which present opportunities for further research. First, although our empirical setting of housing associations in the Netherlands is typical for the context of semi-public service organizations, the generalizability of our findings may be limited. Research across other contexts of semi-public service organizations is needed.

Second, in this study we focused on explaining market orientation. However, stakeholders other than customers and competitors are likely to be of importance in this context. Future researchers may adopt a stakeholder management approach, where all key stakeholders are part of an organization's orientation (Greenley & Foxall, 1997). Third, investigating only antecedents of market orientation, we made a first step in explaining the degree of market orientation of semi-public service organizations. As a second step, future researchers may also want to include more organizational change and implementation factors such as the nature, pace, pattern, and effectiveness of the change program (Garud & Van de Ven, 2002). Finally, this study suggests that more attention is warranted for idiosyncrasies of semi-public service organizations and perhaps of organizations that are relative 'beginners' in becoming more market-oriented.

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## Appendix: Measures

Construct and Reliability	Items
Information generation (Matsuno and Mentzer, 2000) $\alpha = .696$	<ol style="list-style-type: none"> <li>1. We poll end users at least once a year to assess the quality of our products and services.</li> <li>2. In our organization, intelligence on fellow housing associations/competitors is generated independently by several departments. (dropped) ~</li> <li>3. We periodically review the likely effect of changes in our business environment (e.g., regulation) on customers.</li> <li>4. In this organization, we frequently collect and evaluate general macroeconomic information (e.g., interest rate, inflation rate). ~</li> <li>5. In this organization, we maintain contacts with officials of government and regulatory bodies in order to collect and evaluate pertinent information. ~</li> <li>6. In this organization, we collect and evaluate information concerning general social trends (e.g., environmental consciousness, emerging lifestyles) that might affect our business.</li> <li>7. In this organization, we spend time with our suppliers to learn more about various aspects of their business (e.g., manufacturing process, industry practices, and clientele).</li> <li>8. In our organization, only a few people are collecting information about fellow housing associations/competitors. (dropped) ~ *</li> </ol>
Information dissemination (Matsuno and Mentzer, 2000) $\alpha = .800$	<ol style="list-style-type: none"> <li>1. Personnel in our organization spend time discussing customers' future needs with other functional departments. ~</li> <li>2. Our organization periodically circulates documents (e.g., reports, newsletters) that provide information on our customers.</li> <li>3. We have cross-functional meetings very often to discuss market trends and developments. ~</li> <li>4. We regularly have interdepartmental meetings to update our knowledge of regulatory requirements.</li> <li>5. People in this organization spend a lot of time sharing information about new services. ~</li> <li>6. Market information spreads quickly through all levels in this organization.</li> </ol>
Responsiveness (Matsuno and Mentzer, 2000) $\alpha = .772$	<ol style="list-style-type: none"> <li>1. For one reason or another, we tend to ignore changes in our customers' product or service needs. *</li> <li>2. The services we provide depend more on internal politics than real market needs. ~ *</li> <li>3. We are slow to start business with new suppliers even though we think they are better than existing ones. *</li> <li>4. The activities of the different departments in this organization are well coordinated.</li> <li>5. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion. *</li> <li>6. If a special interest group were to publicly accuse us of harmful practices, we would respond to the criticism immediately. ~ (dropped)</li> <li>7. We tend to take longer than fellow housing associations to respond to a change in regulatory policy. * ~</li> </ol>

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<p>Customer-focused culture 1, 2 (Deshpandé <i>et al.</i>, 1993) 3, 4, 5 (Homburg and Pflesser, 2000) <math>\alpha = .741</math></p>	<ol style="list-style-type: none"> <li>1. The customer's interests should always come first, ahead of the own organization's interests. ~</li> <li>2. I believe this organization exists primarily to serve customers. ~</li> <li>3. Policy development is based on viewing problems from the perspective of the customer.</li> <li>4. For the development of activities the added value for the customer is considered.</li> <li>5. We try to offer the customer what they expect from us.</li> </ol>
<p>Risk aversion (Jaworski and Kohli, 1993) <math>\alpha = .703</math></p>	<ol style="list-style-type: none"> <li>1. Managers in this organization believe that higher financial risks are worth taking for higher rewards. ~</li> <li>2. Managers in this organization like to take big financial risks. ~</li> <li>3. Managers here encourage the development of innovative marketing strategies, knowing well that some will fail. ~</li> <li>4. Managers in this organization like to play it safe. ~*</li> <li>5. Managers around here like to implement plans only if they are very certain that they will work. ~*</li> </ol>
<p>Process improvement control 1, 2, 3 (Conca <i>et al.</i>, 2004) 4 (newly developed) <math>\alpha = .701</math></p>	<ol style="list-style-type: none"> <li>1. In this organization, we have continuous control and improvement of key processes.</li> <li>2. The processes used in this organization include quality measures.</li> <li>3. The employees involved in the different processes know how to evaluate them.</li> <li>4. In this organization, the processes remain unchanged when policy changes.*</li> </ol>
<p>Top management emphasis (Jaworski and Kohli, 1993) <math>\alpha = .613</math></p>	<ol style="list-style-type: none"> <li>1. Management repeatedly tell employees that the image of the organization depends on its adapting to market trends. ~</li> <li>2. Managers often tell employees to be sensitive to the activities of fellow housing associations / competition. ~</li> <li>3. Managers keep telling people around here that they must gear up now to meet customers' future needs. ~</li> <li>4. According to managers here, serving customers is the most important thing our organization does. ~</li> </ol>
<p>Interdepartmental conflict (Jaworski and Kohli, 1993) <math>\alpha = .831</math></p>	<ol style="list-style-type: none"> <li>1. Most departments in this organization get along well with each other.*</li> <li>2. When members of several departments get together, tensions frequently run high.</li> <li>3. People in one department generally dislike interacting with those from other departments.</li> <li>4. Employees from different departments feel that the goals of their respective departments are in harmony with each other.*</li> <li>5. Protecting the activities of the department against people from other departments is considered to be a way of life in this organization. ~</li> <li>6. There is little or no interdepartmental conflict in this business unit.*</li> </ol>

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Interdepartmental connectedness (Jaworski and Kohli, 1993) $\alpha = .778$	<ol style="list-style-type: none"> <li>1. In this organization, it is easy to talk with virtually anyone you need to, regardless of rank or position.</li> <li>2. There is ample opportunity for informal hall talk among individuals from the different departments in this organization.</li> <li>3. In this organization, employees from different departments feel comfortable calling each other when the need arises.</li> <li>4. Managers here discourage employees from discussing work-related matters with those who are not their immediate superiors or subordinates.* (dropped)</li> <li>5. People around here are quite accessible to those in other departments.</li> <li>6. Junior managers in my department can easily schedule meetings with junior managers in other departments.</li> </ol>
Formalization (Jaworski and Kohli, 1993) $\alpha = .684$	<ol style="list-style-type: none"> <li>1. I feel that I am my own boss in most matters. * (dropped)</li> <li>2. A person can make his own decisions without checking with anybody else.*</li> <li>3. How things are done around here is left up to the person doing the work.*</li> <li>4. People here are allowed to do almost as they please. *</li> <li>5. Most people here make their own rules on the job. *</li> <li>6. The employees are constantly being checked on for rule violations.</li> <li>7. People here feel as though they are constantly being watched to see that they obey all the rules. (dropped)</li> </ol>
Centralization (Jaworski and Kohli, 1993) $\alpha = .761$	<ol style="list-style-type: none"> <li>1. There can be little action taken here until a supervisor approves a decision.</li> <li>2. A person who wants to make his own decision would be quickly discouraged here.</li> <li>3. Even small matters have to be referred to someone higher up for a final answer.</li> <li>4. Any decision I make has to have my boss's approval.</li> </ol>
Market-based reward systems (Jaworski and Kohli, 1993) $\alpha = .625$	<ol style="list-style-type: none"> <li>1. Customer satisfaction assessments influence managers' pay in this organization.</li> <li>2. We use customer research to assess our personnel.</li> </ol>

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Note: All items are measured on a five-point Likert scale, ~: item adapted to research setting, \*: reverse-coded item



Table 1 Review of empirical studies with significant effects of organizational antecedents on market orientation

<b>Antecedents</b>	<b>Representative papers</b>	<b>Sector</b>	<b>Research setting</b>
<b>Change capacity</b>			
Risk aversion	Jaworski & Kohli (1993)	Private	Companies
	Avlonitis & Gounaris (1999)	Private	Companies
Top management emphasis*	Jaworski & Kohli (1993)	Private	Companies
	Pulendran et al. (2000)	Private	Companies
Emphasis on quality practices	Raju & Lonial (2001)	Nonprofit and profit	Hospitals
Learning culture	Cegarra-Navarro & Rodrigo-Moya (2007)	Private	Small & Medium-sized Enterprises
Organizational entrepreneurship	Wood et al. (2000)	Nonprofit	Hospitals
<b>Interdepartmental factors</b>			
Interdepartmental conflict*	Jaworski & Kohli (1993)	Private	Companies
	Pulendran et al. (2000)	Private	Companies
Interdepartmental connectedness*	Jaworski & Kohli (1993)	Private	Companies
	Pulendran et al. (2000)	Private	Companies
<b>Organizational Systems</b>			
Formalization*	Avlonitis & Gounaris (1999)	Private	Companies
	Deshpandé & Zaltman (1982)	Private	Companies
Centralization*	Avlonitis & Gounaris (1999)	Private	Companies
	Deshpandé & Zaltman (1982)	Private	Companies
	Jaworski & Kohli (1993)	Private	Companies
Market-based reward systems*	Jaworski & Kohli (1993)	Private	Companies
	Pulendran et al. (2000)	Private	Companies
Departmentalization	Balabanis et al. (1997)	Nonprofit	Charity organizations
<b>Context-specific factors</b>			
Source of funding	Macedo & Pinho (2006)	Nonprofit	Nonprofit organizations
Characteristics of governing politicians	Cervera et al. (2001)	Public	Local governments
Professionalism of senior managers	Wood et al. (2000)	Nonprofit	Hospitals

Note: Antecedents marked with an asterisk (\*) were found to have a significant effect in the meta-analysis by Kirca et al. (2005). Other antecedents were not included in their meta-analysis.

Table 2: Correlation Matrix and Descriptive Statistics

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Information generation													
2. Information dissemination	.546												
3. Responsiveness	.269	.364											
4. Customer-focused culture	.218	.228	.278										
5. Risk aversion	.105	-.177	-.186	-.235									
6. Process improvement control	.573	.423	.343	.305	.105								
7. Top management emphasis	.217	.325	.239	.435	-.302	.035							
8. Interdepartmental conflict	-.049	-.120	-.469	-.179	.063	-.220	-.050						
9. Interdepartmental connectedness	.022	.092	.256	.352	-.081	.124	.228	-.616					
10. Formalization	.114	.230	.024	-.083	.103	.092	-.056	-.071	.060				
11. Centralization	-.060	-.032	-.410	-.290	.255	-.135	-.115	.286	-.377	.191			
12. Market-based reward systems	.273	.300	.244	.307	.101	.447	.210	-.123	.047	.232	.020		
13. Size	.177	.116	-.152	-.139	.014	.163	-.062	.241	-.263	.062	.189	.096	
Mean	3.66	3.11	2.99	3.79	3.27	3.46	3.29	2.13	4.37	3.21	2.06	2.32	68.84
Standard deviation	0.63	0.73	0.57	0.55	0.59	0.69	0.60	0.63	0.51	0.58	0.62	1.01	84.82

Note: Correlations  $\rho < -.2$  and  $\rho > .2$  are significant at  $p < .05$

Table 3: Standardized Regression Estimates of the Effects on Market Orientation

	<b>Model 1</b>		<b>Model 2</b>		<b>Model 3</b>		<b>Model 4</b>	
	Information Generation		Information Dissemination		Responsiveness		Customer-Focused Culture	
	Std. $\beta$	<i>T</i> -value	Std. $\beta$	<i>T</i> -value	Std. $\beta$	<i>T</i> -value	Std. $\beta$	<i>T</i> -value
<i>Change capacity factors</i>								
Risk aversion	.132	1.496	-.171†	-1.849	-.080	-.927	-.153†	-1.727
Process improvement control	.568***	6.045	.396***	4.024	.213*	2.313	.234*	2.482
Top management emphasis	.278**	3.088	.283**	2.996	.184*	2.084	.262**	2.897
<i>Interdepartmental factors</i>								
Interdepartmental conflict	.018	.171	-.043	-.388	-.427***	-4.130	.128	1.213
Interdepartmental connectedness	-.093	-.842	-.048	-.419	-.223*	-2.072	.262*	2.376
<i>Organizational systems</i>								
Formalization	.093	1.103	.211*	2.382	.050	.602	-.103	-1.217
Centralization	-.057	-.618	.042	.432	-.297**	-3.275	-.090	-.974
Market-based reward systems	-.074	-.781	.024	.243	.078	.841	.203*	2.133
<i>Control variable</i>								
Size	.083	.965	.045	.501	-.084	-.998	-.177	-1.359
<i>F</i> -statistic (df =[9,94]) ( <i>n</i> =104)	7.125***		5.617***		7.869***		7.066***	
<i>R</i> <sup>2</sup> (Adj. <i>R</i> <sup>2</sup> )	.406 (.349)		.350 (.287)		.430 (.375)		.404 (.346)	

Note: †  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Figure 1: Conceptual Model

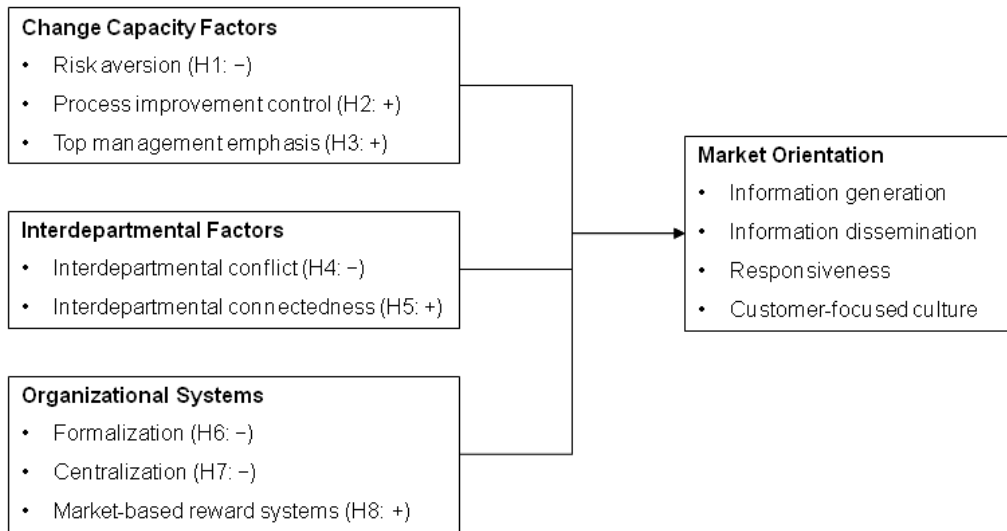


Figure 1: Conceptual model