



International Journal of Applied Business and Economic Research

ISSN : 0972-7302

available at <http://www.serialsjournal.com>

© Serials Publications Pvt. Ltd.

Volume 15 • Number 15 • 2017

The Market Intelligence Impact on Strategic Performance in Declining Markets

Zahra Ahmadi*¹ and Agneta Sundström*²

* Faculty of Education and Economics, University of Gävle, Sweden.

¹ E-mail: zahra.ahmadi@big.se

² E-mail: agneta.sundstrom@big.se

Abstract: This study examines how companies in declining markets operate in the context of market intelligence, responding to customer needs and applying them to strategic performance. A quantitative survey was sent to 214 public housing companies. The results indicate that market intelligence creates commitment and is significant. A positive relationship was found between data gathering, dissemination, and responsiveness, which indicates that the companies comprehend market needs but companies have difficulty to manage construction strategies that improve strategic performance. There was a low value of strategic performance; a link between market intelligence and the chosen strategy was not confirmed. Companies know what the market wants but base their decision on previous strategic performance on economic conditions in the municipality instead.

Paper type: Quantitative research study.

Keywords: Market orientation, market intelligence, public housing companies, strategic performance, declining market.

1. INTRODUCTION

In many developing countries the restructuring of public sector organizations has transformed from being government controlled to driven by market orientation (MO) principles (Kohli and Jaworski, 1990). The subject of this study is public housing companies (PHCs) in Sweden that have experienced recent legal, economic, and demographic changes. According to the Swedish government's proposals and European Commission committee directives (Public Municipal Housing Companies Act, 2010), from January 2011 a new law requires PHCs to act in the same competitive and economic way as the private sector. The law has especially contributed to radical challenges for PHCs in declining markets in how to act strategically to orient towards the needs of the market. According to MO principles, marketers are expected to strategically

plan and act from a long-term perspective so that market demands are met, while also having positive impact on performance (Che-Ha, Mavondo, and Mohd-Said, 2014). Few studies have investigated how the transformation to a market-oriented strategy influences PHCs in declining markets, which is a gap this study aims to fill.

This study takes a market-intelligence perspective of MO to explore how PHCs in declining markets manage the transformation from the government-controlled to the market-led situation. The market intelligence perspective explores how companies can act strategically based on developing knowledge of the market. This perspective mandates the strategy of gathering market information, disseminating it in the organization in a structured fashion, and responding strategically to long-term market needs based on the information (Kohli and Jaworski, 1990). The presumption is that by working actively within these three constructs, companies can create superior value for the customer, which in turn affects company performance and growth opportunities (Hult, Ketchen, and Slater, 2005; Menguc and Ahu, 2006).

The positive relationship between MO and performance is commonly confirmed in research, but the findings differ about which market intelligence constructs cause this link (Green, McGaughey, and Casey, 2006). The interdependency between gathering of information and dissemination and how these two constructs correlate to responsiveness are often tested (Chung, 2012; Kara, Spillan, and Deshields, 2005). Limited research attention has been paid to studying them as interrelated processes by analyzing the extent to which the three constructs have an influence on performance. Following the suggestions of Jaworski and Kohli (1996), this study tests the constructs as three interrelated parts, as well as how this chain of evidence influences strategic performance in PHCs. Strategic performance here represents housing strategies such as new construction, reconstruction, renovation, vacancy rate, and demolition of buildings (Jaworski and Kohli, 1996; Mintzberg, Ahlstrand, and Lampel 2009). The purpose of this study is to examine how public housing companies in declining markets operate in the context of market intelligence and to apply these constructs to improve strategic performance.

Most MO studies include a wide range of business areas rather than a specific market or else address developing market contexts (Lings and Greenley, 2009). This study contributes by paying attention to the role of MO within a defined business context and how companies under declining market conditions use the constructs to remain competitive on the market. By following the market intelligence logic, this study contributes also by showing the strength of the different constructs. We show that it is not enough to investigate market intelligence as constituted of separate parts. The entire process must be considered to examine which constructs have less or more influence on strategic performance and how these are related to customer demands in a declining market context.

2. PUBLIC HOUSING COMPANIES IN A DECLINING MARKET CONTEXT

Declining markets are defined as decreasing in size and experiencing difficult economic conditions, such as from decreased population (Hodge, McMillen, Sands, and Skidmore, 2016; Wilhelmsson, Andersson, and Klingborg, 2011). These markets are strongly characterized by stigma due to decreased population, falling investments, high vacancy rate, and little new construction, which are indicators taken into account to measure a declining market (Glaeser and Gyourko, 2006). Research shows strong support related to how decreased population correlates to the need for housing units on the market (Glaeser and Gyourko, 2006). This means increased vacancies, which in turn influence the rate of demolition of housing in the market (Musterd, 2014).

The Swedish Association of Public Housing Companies (2014) assessed 108 municipalities in Sweden as belonging to the category of declining housing markets. In general, these PHCs are broadly discussed in research pointing to unchanged high vacancy rate over a long period of time. Between 2006 and 2009, for instance, almost 6% had a high vacancy rate. An updated population forecast showed that the population was expected to continue to decline in these municipalities from 2.5% in 2010 to 6% in 2015. Research points to the need for strategic renewal having influence on quality of life, but these ambitions are also affected by the choice of strategic performance (construction strategies) due to unfavorable economic conditions (Glaeser and Gyourko, 2006; Hodge *et al.*, 2016; Wilhelmsson *et al.*, 2011).

Several research proposals have been made for how to remedy the situation. Jacobs, Berry, and Dalton (2013) pay attention to how governmental policy interventions can have long-term impact on declining market situations but also show how decisions commonly mediate between competing resource claims with split results. Musterd (2014) discusses government involvement related to the provision of subsidies for high-quality construction in the Dutch public housing sector. The study shows that the PHC market is becoming weaker and increasingly tries to meet the needs of a lower socio-economic level of renters. Most PHC studies have focused on investigating how governmental interventions (subsidies, policies, and recommendations) can contribute to development that enables declining markets to *grow*.

Johnson, Hollander, and Hallulli (2014) contrasts this growing market focus by discussing how *smart decline* instead can lead to improved quality of life, contributing to social values even in the situation of declining population. They argue that declining markets can address residential satisfaction and possibilities if municipalities creatively reformulate their public housing investment strategies with more focus on how to develop social values and welfare. Johnson *et al.* (2014) argue that municipal decline can instead be viewed as an opportunity to creatively re-examine the negative trend and find a solution that improves profit and welfare in the municipalities.

All the attention to governmental and municipality interventions in research (Glaeser and Gyourko, 2006; Hodge *et al.*, 2016; Wilhelmsson *et al.*, 2011) shows that PHCs are perceived to have low incentive to follow the market. However, Sundström, Ahmadi, and Hyder (2016) show that PHCs both in growing and declining markets operate based on market intelligence incentives. The study shows that companies in declining markets also try to buck a negative trend by creating innovations, but that these attempts are more related to what they want to do than market demands.

The studies discussed indicate that more research is needed to investigate how PHCs in declining markets handle market intelligence principles to identify which constructs function, and which may require further development and initiatives to be taken by the companies.

3. THEORETICAL FRAMEWORK

This paper uses Ruekert's (1992) MO definition:

“MO is the degree to which the business unit obtains and uses information from customers, develops a strategy which will meet customer needs, and implements strategy by being responsive to customers' needs and wants” (p. 228).

The definition follows the market intelligence perspective of MO, which emphasizes that companies collect relevant customer information to know what the market wants (Kohli and Jaworski, 1990) and then disseminate and integrate this knowledge in different functions of the organization. Disseminating cross-

functional market intelligence is regarded as a key driver of business strategy, also forming the basis for company decisions (Jaworski and Kohli, 1993; Lackman, Saban, and Lanasa, 2000; Maltz and Kohli, 1996). This construct is crucial for developing innovative strategies that lead to responsiveness, taking into account current and future customer needs (Zebal and Goodwin, 2011).

Strategic marketing planning is an important task for companies to manage within the scope of MO (Jamil, 2013; Mintzberg *et al.*, 2009) to improve responsiveness to customer needs. According to the market intelligence model, the three constructs need to influence performance for achieving business success (Zebal and Goodwin, 2011).

3.1 The Market Intelligence and Performance Relationship

While MO is seen as the cornerstone of market strategy, there is an ongoing debate regarding any effect on business performance (Kara *et al.*, 2005). Empirical findings differ regarding the interconnected link between MO and performance, which indicates a definitional complexity (Chung, 2012; Kara *et al.*, 2005). MO is usually influenced by different extrinsic aspects such as moderating (*i. e.*, external competitive environment) and mediating (*i. e.*, internal learning ability), factors having direct or indirect effects on performance (Liu, Ke, Wei, and Hua, 2013). Depending on a company's core activities, the concept is used in different ways and for different purposes (Anwar, 2008), indicating that MO can have different impacts on performance depending on research focus.

Measurement problems are commonly associated with defining what performance actually is and how to discuss the concept beyond generically (Liu *et al.*, 2013). MO impact on business performance (Kirca, Jayachandran, and Bearden, 2005) has been investigated from several different perspectives but mostly concentrating on its impact on financial values (Liu *et al.*, 2013). This means that measurements are designed to calculate either the growth of financial aspects or results of economic activity (Che-Ha, *et al.*, 2014). Kaplan (2001) argues, however, that it is difficult to measure the financial performance of future projects, since these measures show past values and communicate little about long-term value creation in the future. Chung (2012) suggests instead defining performance as strategies developed to achieve success.

Related to the PHC context, Wang, Chen, and Chen (2012) see performance as lodging index and stakeholder satisfaction, which are measured, for instance, by occupancy rate per room. The absence of a long-term investment plan prevents housing companies from growing and matching their configuration better to current and future customers' needs (Jacobs *et al.*, 2013). This paper follows their suggestion that companies need to invest in construction strategies (new construction, reconstruction, renovation, and demolition) to create favorable conditions and values in declining markets. Construction strategies can be used as an indicator for measuring nonfinancial performance (Banker, Potter, and Srinivasan, 2005). By increasing strategic awareness and response to market demands, investments in construction strategies can help companies to establish a competitive market position built on customer demands. Investments signal also the attractiveness of a place and the well-being offered in living conditions. Negative trends can be reversed into opportunities (Glaeser and Gyourko, 2006; Johnson *et al.*, 2014) by applying more sophisticated market-oriented investment strategies that go beyond the traditional use of government-ruled price-adjustment mechanisms (Jacobs *et al.*, 2013). This shift towards a more opportunistic strategy to counter negative trends calls for a stronger market-oriented revitalization strategy. Improved knowledge of market demands by applied market intelligence constructs can act as a strategic tool for strategic performance that reverses the negative development in declining markets.

Following the suggestion of Ruekert (1992, *p.* 228), Gatignon and Xuereb (1997), and Chung (2012), we see the three different constructs of market intelligence as forming an interdependent process having an impact on strategic performance (construction strategies) in the context of PHCs in declining markets. Based on this interrelationship, we propose hypothesis 1:

H1. MO is positively related to the company's strategic performance. To influence strategic performance requires a positive interrelationship among market intelligence constructs applied by public housing companies in declining markets.

Figure 1 shows the market intelligence constructs, their interrelationship and effect on strategic performance and how their interconnectedness is tested in hypotheses 1-5. The model suggests that H1 can be provided the results of H2-H5. The latter hypotheses are discussed in the following sections.

3.2 The Gathering and Dissemination of Information

The gathering of customer information (Jaworski and Kohli, 1993; Lackman *et al.*, 2000) is more or less taken for granted by many companies. Market knowledge activities are commonly considered as a way to bind the customer to the company in order to support customers' needs (Ruekert, 1992). Kohli and Jaworski (1990) examined gathering information by using formal and informal methods. Managers need to collect and interpret information not only about the customer *per se* but also about relevant factors that can affect customer wants (Ruekert, 1992; Zebaland Saber, 2014).

According to Johnson *et al.* (2014), housing companies commonly face development problems that are often multifaceted, technically demanding and requiring action in the face of limited information and/or resources. The MO literature implies that businesses can use market intelligence principles to strategically integrate relevant activities and processes to receive important advantages on the global market (Rossiter, 2012; Zebal and Goodwin, 2011). Customer information allows decision makers to understand market trends by tracking emotions in relationship to particular issues. The emphasis on market intelligence implies a shift from more traditional sources of advantage towards a strategic focus specifically aimed at understanding today's rapidly changing business environments (Carbonell and Escudero, 2010).

Based on this discussion, hypothesis 2 follows.

H2. Proactive MO companies continually gather information about activities and processes that meet customer needs. Information gathering is a prerequisite to strategically integrate relevant activities and processes in public housing companies in declining markets.

The market intelligence perspective assumes that customer information gathered is disseminated and integrated into core business activities so that those who need the information can use it efficiently (Jaworski and Kohli, 1993). The company's strategic orientation is one of the most crucial tools for making management decisions (Katsikeas, Samiee, and Theodosiou, 2006), requiring that market information is spread and strategically integrated in company activities. Effective implementation of information can contribute to defining the organization's knowledge base (Mintzberg *et al.*, 2009), help identify customer needs (Carbonell and Escudero, 2010), and improve the delivery of products and services, together constituting a competitive strategy (Day, 1994; Kohli and Jaworski, 1990). These areas not only relate to gathering information on external factors but also how this information is disseminated and converted to innovativeness (Menguc and Auh, 2006), which is made visible through internal plans and other formal strategies. According to Lackman *et al.* (2000), well-defined, comprehensive, and strategic planning by companies in the housing market provides a framework for formulating market strategies that meet and improve customer satisfaction.

Maltz and Kohli (1996) see dissemination of information as a moderator variable to create market dynamism and that poor cross-sectional dissemination cannot be efficiently integrated in different functional areas. Groups with low market connection and knowledge are less equipped to find complex and new relationships among the needs of the market, technology, and the use of company resources (Jaworski and Kohli, 1993; Kara *et al.*, 2005). This discussion leads to hypothesis 3.

H3. The gathering of information is positively related to dissemination of information in public housing companies in declining markets. The dissemination of information facilitates the formulation of market strategies that meet and exceed customer satisfaction.

3.3 Dissemination, Responsiveness and Strategic Performance Relationship

Dissemination of information refers to the sharing of market information between functional units and through formal and informal channels (Maltz and Kohli, 1996; Rossiter, 2012). Responsiveness is defined as the ability for the company to proactively act based on internal and external market information (Kohli *et al.*, 1993), reflecting its specific capability to respond to market information generated from competitors, customers, and other sources (Homburg and Jensen, 2007; Jaworski and Kohli, 1993). Companies need to rapidly and continually respond to opportunities and threats in order to prosper in an environment of changing customer needs and competitor reactions (White, Varadarajan, and Dacin, 2003). Thus, not only do external factors affect the company's ability to act on customers' needs, but also internal knowledge must spread within the organization. Carbonell and Escudero (2010) consider the spread of intellectual capital an intangible property that improves the company's strategic performance.

Responsive actions may lead the company to strategically adjust offerings, products, and technology that can contribute to improved performance (Narver, Slater, and MacLachlan, 2004). Responsiveness is seen as an important indicator of a company's future orientation (Anwar, 2008; Jaworski and Kohli, 1993) and reflects its ability and tendency to act on internal and external MO capacity (Kohli, Jaworski, and Kumar, 1993). Rapid responsiveness by actions enables the companies to diagnose their current knowledge and resources, anticipate future knowledge, and redesign processes supporting new ideas (Day, 1994). Chang *et al.* (2013) state that "market responsiveness" is the company's reaction to market signals. From this discussion, we suggest hypothesis 4.

H4. The dissemination of information is positively related to public company responsiveness to customer needs in declining markets. Responsiveness signals the companies' strategic ability to act related to internal dissemination of market knowledge.

As the information gathering and dissemination can be seen as a continuous and interrelated process having influence on responsiveness and strategic performance, hypotheses H4a and H4b follow.

H4a. The dissemination and gathering of information as interrelated processes are positively related to public company responsiveness to customer needs in declining markets.

H4b. The dissemination and gathering of information is positively related to company strategic performance in response to customer needs in declining markets.

An adequate and quick response to customer needs helps a company capture existing market demands, reduce potential risks, and improve performance (Chang, Gong, Way, and Jia, 2013). Additionally, responding to customer needs can increase the company's value to customers and improve customer satisfaction, which leads to increased performance (Jaworski and Kohli, 1993). Many researchers (Anwar, 2008; Narver and

Slater, 1990; Narver *et al.*, 2004) claim that company responsiveness positively affects business performance. Among all orientations they state that the strategic contributes most to success. Customer needs and strategic orientation must be balanced to achieve survival and good business performance (Atuahene-Gima and Ko, 2001; Noble, Sinha, and Kumar, 2002). The strategic directions implemented by the company facilitate developing proper behavior that supports superior business performance (Gatignon and Xuereb, 1997). According to Johnson *et al.*, (2014) appropriate responsiveness to local conditions indicative of municipal shrinkage can govern the actions of planners and policymakers, enabling decline to become smart decline. Our last hypothesis is H5.

H5. Company responsiveness is positively related to strategic performance in declining markets and can predict strategic performance.

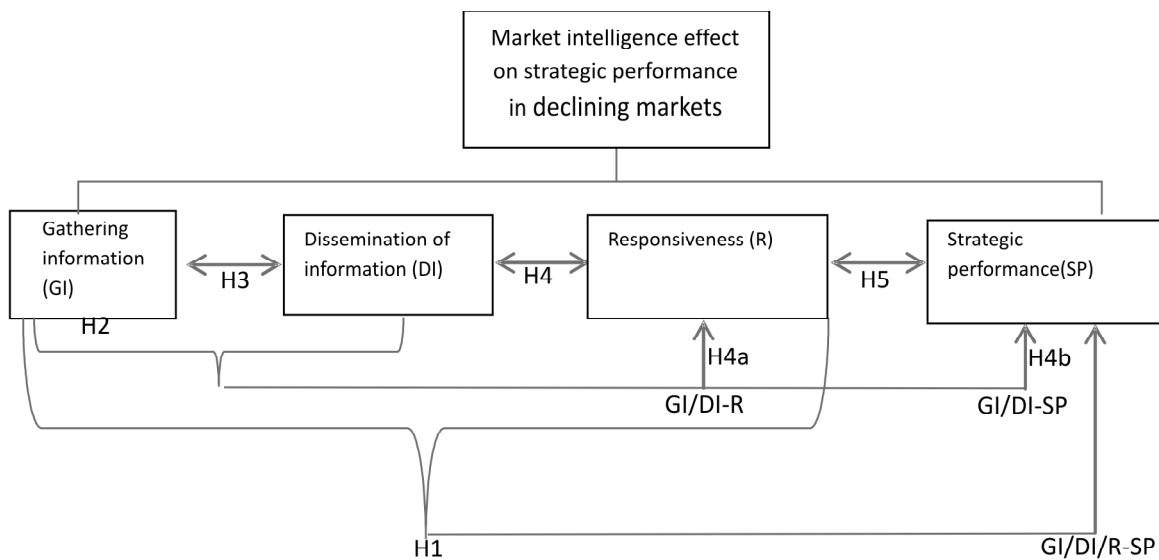


Figure 1: Market intelligence process effects on performance.

4. METHOD

4.1 Pilot Study and Questionnaire Development

Data was collected *via* a questionnaire with questions based on previous MO research (Kohli and Jaworski, 1990). A modified scale from Kohli *et al.* (1993) was applied, modified, and linked to the specific conditions of the PHC context in Sweden. The study derives from a qualitative pilot study as the basis for developing a questionnaire used for this hypothesis testing approach.

The survey was divided into four sections, with questions about

1. demographics;
2. the companies' gathering of information, aiming to measure their ability and engagement in collecting information about customer needs;
3. dissemination of information; and
4. how the companies work with responsiveness and how sections 2-4 relate to strategic performance.

The fourth section also asks about construction strategies for the past five years and planned for the coming five years. The construction strategies consist of new construction, reconstruction, renovation, demolition, vacancy, and sale and purchase of dwellings. The answers in sections 2, 3, and 4 are all measured with a Likert scale from 1 to 7: “strongly disagree” to “strongly agree.”

The MO variables followed the suggestion of Day (1994) and Hunter and Schmidt (2004) that they should be controlled several times to increase the significance of the study. The 29 survey questions are based on the MARKOR scale developed by Kohli *et al.* in 1993 but adjusted to the specific PHC context, both a potential strength and a limitation that lowers comparability to other studies. To reduce response bias, we avoided difficult words that could cause confusion. The survey was double-checked by two experts in real estate and marketing to remove items least related to the constructs, suggest additional items, and improve wording.

4.2 Sampling and Data Collection

The study includes 104 PHCs in declining markets in Sweden. The respondents have leading positions with impact on business performance, such as CEO, property manager, finance manager, and administration manager. The PHCs were selected due to their declining market situation, long distance to larger cities, and a municipal population between 5,000 and 50,000 citizens. The total population of declining market PHCs includes approximately 2 million citizens. These PHCs have market dominance, with 60-80% market share in the rental market of their municipalities and turnover per year up to 200 million SEK (Statistics Sweden, 2015).

Before 2011, these PHCs were governed by the municipalities to provide good living conditions as well as to set the price level of rents, which was seen as causing unfair competition on the market. From 2011 a new law by the EU Commission requires the PHCs to compete on equal terms following the principles of the market. Secondary data were collected from websites and annual reports of the Swedish Association of Public Housing Companies (2014). This association classifies PHCs into two main groups—declining and growing—depending on market size, population, and yearly turnover. Following their classification, the selected companies represent the declining market group.

The survey data was collected *via* a multistep approach. A digital survey was first sent by email to 214 declining market PHCs. All respondents received the survey by email. The survey was available for 60 days; we received 60 responses. After three follow-up reminders and to increase response rate, an additional 44 responses (in total, 104 PHCs) were received. Top managers of each company that initially did not respond were contacted by phone calls (see Kumar, Jones, Venkatesan, and Leone, 2011; Noble *et al.*, 2002) to get permission for personal interviews to answer the questionnaire. After approval, further data could be collected by email and phone calls to complete the survey. All 104 PHCs responses are valid, since they represent a 49% response rate of the total group.

4.3 Measurement, Reliability, and Validity

The data was analyzed by linear regression analysis and correlation measures with the statistical analysis software SPSS (see Kirca *et al.*, 2005). Statistical pre-test methods (see suggestions of Hair, Black, Babin, and Anderson, 2010) were combined to measure Cronbach's alpha. These measures show whether there is a linear relationship between two tested variables (Pallant, 2010).

Each question was categorized according to the developed MO hypotheses (H1–H5): how the companies gather information (GI) and disseminate information (DI) in the organization, their responsiveness (R) to information, and strategic performance (SP; see Figure 1) shown by construction strategies. Regression analysis was used to examine the effect of one variable on another variable to find which construct can predict other constructs of MO concept and any causal relationship between different dimensions according to our model (see Figure 1). We followed George and Mallery's (2003) guide to increase reliability of the results: the Cronbach's alpha reliability coefficient is used, showing average covariance between item pairs and variance of the total scores.

Linear regression analysis was applied to estimate relationships between independent and dependent variables. Table 4 lists the results regarding the measurement of MO effects on strategic performance. Given our assumed inter relationship between MO constructs in the *first* regression analysis, the *dependent variable is DI* and the independent variable is GI. In the *second* regression analysis, the *dependent variable is R*, while the independent variable is DI. In the *third* regression analysis, the *dependent is SP*, while the independent variable is R. This technique indicates that the dependent/independent MO variable changes depending on its role in the analysis.

In the next section we explain the details of the analyses of β and t . The research hypotheses, conclusions, and results are listed in Table 4.

5. RESULTS

Four interrelated constructs of MO are included in the measurements, from testing the companies' knowledge of customer needs to how they strategically respond to these needs in construction performance. This paper follows the suggestion that if the organization (here, PHC) is highly market oriented (here, having a market intelligence perspective), this affects the company's strategic (construction) performance. In the calculations, the average value of different variables of MO dimensions is used to improve comparability (Hunter and Schmidt, 2004). The result follows the hypothesis design in Figure 1, starting with the testing of H2.

5.1 Testing GI and DI (H2 and H3)

H2 posits that MO companies act positively when gathering information about customer needs, which is a prerequisite to initiate the process. Table 1 shows descriptive statistics of PHCs' gathering and dissemination of information, responsiveness, and strategic performance.

The path coefficients and Cronbach's alpha $\alpha = 0.631$ show acceptable reliability level. PHCs GI about customer needs shows that the companies are striving to be market oriented. The average mean value for GI variables is 4.230, while standard deviation and variance are high ranges: 2.024 and 3.735, respectively. Formal methods are more highly valued than informal and website (chatting function, informal communication with tenants). Thus, H2 is supported.

H3 suggests there is a positive relationship between GI and DI. Cronbach's alpha shows $\alpha = 0.605$ coefficient. The average value for DI is 5.439, and standard deviation and variance are respectively 1.560 and 2.437. The test of the GI-DI relationship by regression analysis shows a positive relationship with significant $\beta = 0.465$ $t = 5.305$, with $p < 0.05$. The H3 is supported, showing that PHCs collect customer information and spread this information in the organization.

Table 1
Descriptive Statistics of GI, DI, R, and SP

<i>Variables</i>	<i>Std.</i>		
	<i>Mean</i>	<i>Deviation</i>	<i>Variance</i>
<i>GI</i>			
1. We collect information about customers and their needs through informal methods (e.g., lunch and coffee).	4.18	1.799	3.238
2. We collect information about customers through formal methods (surveys).	5.62	1.850	3.423
3. We collect information about customers' preferences through the comments on the website (chat).	3.00	2.132	4.544
4. We do customer surveys once a year to measure customer satisfaction.	4.13	2.424	5.877
<i>DI</i>			
5. When something happens with customers in the market we spread information directly to employees in the company.	5.08	1.611	2.596
6. We have regular internal meetings where we discuss changes in the customer market.	5.54	1.607	2.581
7. We have regular meetings with the municipality to be informed of developments in the municipality.	5.70	1.461	2.134
<i>R</i>			
8. We are quick to respond to changes in competitors.	4.32	1.590	2.529
9. We are quick to detect changes in the world and meet customer requirements.	4.76	1.296	1.680
10. We are quick to meet the needs of the technological development of customers.	4.58	1.188	1.412
<i>SP</i>			
11. (2011-2015) number of new construction dwellings	1.83	.645	.416
12. (2011-2015) number of reconstruction dwellings	1.78	.607	.368
13. (2011-2015) number of renovation/maintenance dwellings	2.65	1.121	1.258
14. (2011-2015) number of demolished dwellings	1.23	.526	.276
15. (2011-2015) number of vacant dwellings	1.47	.539	.290
16. (2011-2015) number of sold dwellings	1.46	.622	.387
17. (2011-2015) number of bought dwellings	1.19	.420	.176
18. (2016-2020) number of new construction dwellings	2.58	1.349	1.819
19. (2016-2020) number of reconstruction dwellings	1.87	.738	.545
20. (2016-2020) number of renovation / maintenance dwellings	2.84	1.308	1.711
21. (2016-2020) number of demolished dwellings	1.15	.388	.151
22. (2016-2020) number of vacant dwellings	1.32	.468	.219
23. (2016-2020) number of sold dwellings	1.34	.601	.361
24. (2016-2020) number of bought dwellings	1.20	.427	.182
N, valid 104			

5.2 Testing the Relationship between DI-R (H4), GI/DI-R (H4a), GI/DI-SP (H4b) and R-SP (H5)

H4 suggests that dissemination of information is positively related to company responsiveness to meet customer needs. The measurements show that the DI impact on R is positive and significant. Table 1 shows 4.551 as the average value of R, standard deviation and variance values are respectively 1.358 and 1.873. Cronbach’s alpha path coefficient $\alpha = 0.778$ is a good reliability value. The regression analysis shows that the relationship between DI and responsiveness is positive, with $\beta = 0.311$, and $t = -3.307$, which is $p < 0.01$. These values indicate that PHCs show responsiveness to market changes related to how information is disseminated in the organization. Thus, H4 is supported.

Testing H4a and H4b, the interaction effects analysis shows that GI/DI-R (H4a) predicts R by $\beta = 0.304$, $t = 3.224$ and $p < 0.001$. The measurement of PHCs’ SP was completed in two stages to get a long-term perspective on what construction strategies are used over the years:

1. the preceding five years (performed construction strategies) and
2. five years in the future (planned construction strategies).

Thus, H4a is supported.

The analysis of DI/GI-SP (H4b) shows no effect on SP with $\beta = 0.158$, $t = 1.620$ and $p > 0.108$. The result indicates a positive relationship between how PHCs engage in information gathering and dissemination, but customer information has low impact on strategic performance. Therefore H4b is not supported.

Hypothesis 5 suggests there is a positive relationship between a company’s R and SP. The measurements indicate that R’s impact on SP is very weak and cannot predict SP. Table 1 shows the average values for performed and planned strategies to be 1.658 and 1.757, respectively, which are low average values for performed and planned construction strategies. The measure of Cronbach’s alpha shows respectively $\alpha = 0.429$ and $\alpha = 0.490$. This reveals unacceptable reliability for the variables.

Table 2
Regression analysis of performed and planned future construction strategies

	H5: Performed ^a			H5: Planned ^a		
	b	t	sig	b	t	sig
New construction	.105	1.062	.291	.014	.144	.866
Reconstruction	.052	.523	.602	.960	-.970	.334
Renovation	.153	-1.565	.121	-.110	-1.123	.264
Demolition	-.112	-1.136	.259	-.091	-.294	.358
Vacancy	-.132	1.344	.182	-.095	-.960	.339
Sale of housing	-.235	-2.438	.017	-.222	-2.294	.024
Purchase of dwellings	.169	1.728	.087	.008	.085	.932

a. Dependent Variable: strategies; $p < .05$.

Table 2 points to a weak relationship between PHCs’ responsiveness and strategic performance (β). The analysis shows that responsiveness (R) cannot predict PHCs’ performed and planned strategic

performance (SP). The sale of housing strategy has $\beta = -0.235$ for performed strategy and $\beta = -0.222$ for planned strategy, negative significance, which confirms a low negative relationship to responsiveness. The average value of responsiveness with $\beta = -0.151$ cannot predict SP. The low value of all construction strategies shows that PHCs have low incentives to engage related to SP both in response to GI-DI-R but also in terms of how they strategically act in general, showing that H5 is not supported.

5.3 Testing GI/DI/R and Strategic Performance Relationship (H1)

H1 suggests a positive relationship between GI, DI, and R, and that these market intelligence constructs impact strategic performance. Figure 2 illustrates that the testing of H2–H4 provides evidence to reveal the MO-performance relationship.

The interaction analysis implies that GI/DI-R cannot predict SP with $\beta = -0.001$, $t = -0.009$ and $p > 0.993$. The interrelationship between the three market intelligence constructs was measured. This reveals that market intelligence effects on strategic performance as indicated by H1 are not supported. The PHCs collect customer information, disseminate it in the organization, and respond to customer needs. Table 3 shows the analysis does not support causality between market intelligence constructs and strategic performance. This indicates that the PHCs' strategic performance is not related to customer information and needs. The correlation analysis in the table confirms the regression analysis result.

Table 3
Correlation between different market intelligence constructs

	1	2	3	4	5
1. GI	1				
2. DI	.465**	1			
3. R	.225*	.311**	1		
4. SP performed	.109	.058	-.124	1	
5. SP planned	.238*	.019	-.138	.521**	1

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Figure 2 summarizes the results of the study.

6. DISCUSSION

The purpose of this study was to examine how companies in declining markets operate in the context of market intelligence, responding to customer needs and applying them to strategic performance. The relationship between market intelligence components and performance has been seen by various researchers as having positive effects on strategic performance (Chung, 2012; Lackman *et al.*, 2000; Maltz and Kohli, 1996; Jaworski and Kohli, 1993). MO initiatives can substantially assist the companies in developing valuable resources, capabilities, and subsequent strategic effects on market positions that influence company outcomes (Che-Ha *et al.*, 2014). We proposed five hypotheses suggesting positive relationships between MO and strategic performance from a market intelligence perspective in a declining market. Table 4 shows that the interrelationship between these components is only partly supported by H2 and H3.

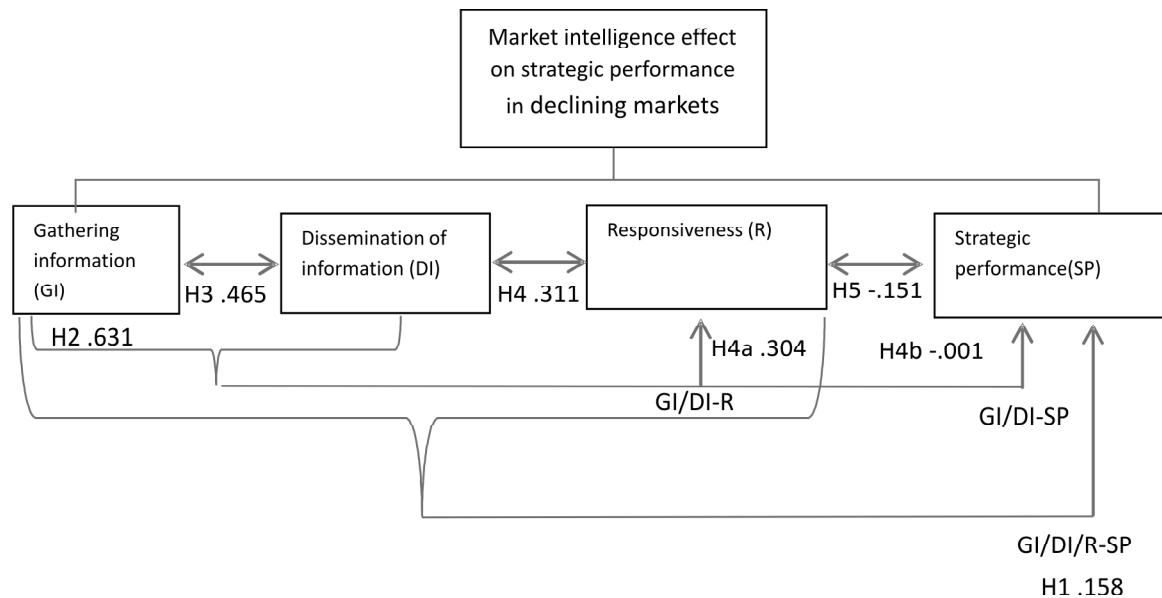


Figure 2: The result of market intelligence process effects on performance.

Table 4
Supported and not supported hypotheses

Hypothesis	Description	Empirical conclusions
H1	MO relative to SP	Not supported
H2	GI	Supported
H3	GI relative to DI	Supported
H4	DI relative to R	Supported
H4a	DI and GI relative to R	Supported
H4b	DI and GI relative to SP	Not Supported
H5	R relative to SPperformed/planned	Not supported
H5a	DI, GI and R relative to SP	Not supported

H2 suggests that companies gather information in both formal and informal ways (Kohli and Jaworski, 1990) and disseminate that information throughout the organization. It is important to collect and interpret customer information and the factors that influence customer wants (Ruekert, 1992; Zebal and Saber, 2014). Data collection activities are considered a way to bind the customer to the company by supporting their needs (Ruekert, 1992). Research, however, points out those data collection activities are commonly taken for granted by many companies (Jaworski and Kohli 1993; Lackman *et al.*, 2000). Our findings show that H2 is supported but that formal data collection methods are preferred over informal, which also has an impact on mean values.

H3 posits that the spread and integration of market information is a crucial instrument to make management decisions (Katsikeas *et al.*, 2006) as it contributes to defining the organization's knowledge base (Mintzberg *et al.*, 2009) and improves company innovativeness ability (Menguc and Auh, 2006). H3

suggests a positive relationship between GI and DI, which is supported. Data show that the PHCs primarily use formal methods for GI, but high standard deviations indicate that knowledge distribution occurs irregularly within the data set. While some PHCs spread data regularly, others do not.

H4 (DI-R) suggests that responsiveness shows the company ability to respond rapidly to changes in the market (Kohli *et al.*, 1993; White *et al.*, 2003) such as information generated from customers and other relevant sources (Homburg *et al.*, 2007; Jaworski and Kohli, 1993). A company's responsiveness has positive effects on business strategic performance (Anwar, 2008; Chang *et al.*, 2013; Narver and Slater, 1990). In their strategic orientation, companies must find balance between meeting customer needs and selecting strategies for survival and good performance (Atuahene-Gima and Ko, 2001; Noble *et al.*, 2002; Sundström *et al.*, 2016). The measurements show that the PHCs' cross-sector responsiveness related to DI is supported. They collect and disseminate information by engaging in education and responding to external changes related to the collected information. The measurement of H4a(GI/DI-R) also confirms that GI and DI together can predict R.

However, the test of H4b(GI/DI-SP) indicates that GI and DI cannot predict SP, which means that the PHCs gather information and disseminate it in the organization but that the information has low impact on construction strategies. The strategic decisions are made on the basis of factors other than the customer's needs. This result is confirmed by H5 (R-SP) showing no relationship between responsiveness and construction strategies, which means that H5 is not supported. Table 3 shows that the relationship between performed and planned strategies is positive, which indicates that PHCs base their planned construction strategies on previously performed strategies.

7. CONCLUSION AND RESEARCH IMPLICATION

This paper examines how PHCs in declining markets handle the transition from being governmental-controlled to applying market orientation principles. By testing the three constructs of market intelligence perspective of MO in seven hypotheses, the study shows that although the PHCs apply the principles, these have no effect on strategic performance. The measurements show a positive relationship between market intelligence constructs, which indicates that PHCs aim to move towards a market-led strategy. By dividing the construction strategies in past and planned strategies, we noticed that PHCs' planning decisions correlate positively with previous strategic choices. In other word, the PHCs follow the same decision practices as before when planning for the future.

Theoretically, companies can act market oriented but fail to use the developed market intelligence to influence strategic performance. From a managerial perspective this means that PHCs in declining markets need to use market intelligence constructs to counter the negative trends, creating the Smart decline suggested by Johnson *et al.* (2014). These conclusions are in line with the findings of Sundström *et al.* (2016), arguing that companies in declining markets can act market oriented but lack the ability to act innovatively and try new solutions to survive.

This study makes several theoretical and managerial contributions to market intelligence research by investigating how PHCs work to gather and disseminate information, respond, and strategically act based on customer information and needs in declining markets. Firstly, theoretically the study contributes to knowledge about how companies respond to market challenges in declining markets, which could be useful in studying a similar phenomenon.

Secondly, few previous studies have addressed market intelligence as consisting of three interrelated components having effects on strategic performance. We show that it is not enough to investigate the separate elements of market intelligence; rather, the entire process must be considered. Thus, weak links in the process are identified, affecting the efficiency of intelligence distribution. The tests of the relationships between market intelligence constructs on previous and planned strategic performance provided evidence that could explain why other studies have had difficulties demonstrating the relationship between MO and performance: strategic performance can be based on previous decisions instead of market knowledge and needs.

This study has several limitations. We have focused on a declining market, which has biased our measurements and results. This makes it difficult to generalize our findings to other market contexts with other market conditions. We have also limited our data collection to 104 PHCs in Sweden. While these data were ideal for testing our hypotheses, future studies are needed on general market tendencies related to our research method. Based on the limitations, we suggest that further studies could identify mediating and moderating effects on declining markets.

REFERENCES

- Anwar, A. S. (2008), "A factor analytic investigation of the construct of market orientation", *International Journal of Management*, Vol. 25, No. 1, pp. 186–197.
- Atuahene-Gima, K., and Ko, A. (2001), "An empirical investigation of the effect of market orientation and entrepreneurship orientation alignment on product innovation", *Organization Science*, Vol. 12, pp. 54–74.
- Carbonell, P., and Escudero, A. I. R. (2010), "The effect of market orientation on innovation speed and new product performance", *Journal of Business and Industrial Marketing*, Vol. 25, pp. 501–513.
- Chang, S., Gong, Y., Way, S. A., and Jia, L. (2013), "Flexibility-oriented HRM systems, absorptive capacity, and market responsiveness and firm innovativeness", *Journal of Management*, Vol. 39, No. 7, pp. 1924–1951.
- Che-Ha, N., Mavondo, F. T., and Mohd-Said, S. (2014), "Performance or learning goal orientation: Implications for business performance", *Journal of Business Research*, Vol. 67, No. 1, pp. 2811–2820.
- Chung, H. F. L. (2012), "Export market orientation, managerial ties, and performance", *International Marketing Review*, Vol. 29, No. 4, pp. 403–423.
- Day, G. S. (1994), "The capabilities of market-driven firms", *Journal of Marketing*, Vol. 58, pp. 37–52.
- Banker, R. D., Potter, G., and Srinivasan, D. (2005), Association of nonfinancial performance measures with the financial performance of a lodging chain. *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 46, No. 4, 394–412.
- Gatignon, H., and Xuereb, J. M. (1997), "Strategic orientation of the firm and new product performance", *Journal of Marketing Research*, Vol. 34, pp. 77–90.
- George, D., and Mallery, P. (2003), *SPSS for Windows step by step: A simple guide and reference. 11. 0 update* (4th ed.). Boston: Allyn and Bacon.
- Glaeser, E., and Gyourko, J. (2006), Urban growth and housing supply. *Journal of Economic Geography*, Vol. 6, pp. 71–89.
- Green, K. W. Jr., McGaughey, R., and Casey, K. M. (2006), "Does supply chain management strategy mediate the association between market orientation and organizational performance?", *Supply Chain Management: An International Journal*, Vol. 11, No. 5, 407–414.
- Hair, J. F., Black, W. C., Babin, B. J., and Anderson, R. E. (2010), *Multivariate data analysis*, Englewood Cliffs, NJ: Prentice Hall.

- Hodge, T., McMillen, D., Sands, G., and Skidmore, M. (2016), Assessment inequity in a declining housing market: The case of Detroit, *Real Estate Economics*, 1–22.
- Homburg, C., and Jensen, O. (2007), The thought worlds of marketing and sales: Which differences make a difference?”, *Journal of Marketing*, Vol. 71, pp. 124–142.
- Hult, G. T. M., Ketchen Jr., D. J. and Slater, S. F. (2005), “Market orientation and performance: An integration of disparate approaches”, *Strategic Management Journal*, Vol. 26, pp. 1173–1181.
- Hunter, J. E., and Schmidt, F. L. (2004), *Methods of meta-analysis: Correcting error and bias in research findings* (2nd ed.). Newbury Park, CA: Sage.
- Jacobs, K., Berry, M., and Dalton, T. (2013), A dead and broken system?: Insider views of the future role of Australian public housing. *International Journal of Housing Policy*, Vol. 13, No. 2, pp. 173-201.
- Jamil, G. L. (2013), “Approaching market intelligence concept through a case analysis: Continuous knowledge for marketing strategic management and its complementarity to competitive intelligence”, *Procedia Technology*, Vol. 9, pp. 463–472.
- Jaworski, B. J., and Kohli, A. K. (1993), “Market orientation: Antecedents and consequences”, *Journal of Marketing*, Vol. 57, pp. 53–70.
- Jaworski, B., and Kohli, A. (1996), “Market orientation: Review, refinement, and roadmap”, *Journal of Market Focused Management*, Vol. 1, No. 2, pp. 119–35.
- Johnson, M., Hollander, J., and Hallulli, A. (2014), Maintain, demolish, repurpose: Policy design for vacant land management using decision models. *Cities*, Vol. 40, pp. 151–162.
- Kaplan, R. S. (2001), “Strategic performance measurement and management in nonprofit organizations”, *Nonprofit Management and Leadership*, Vol. 11, pp. 353–370.
- Kara, A., Spillan, J. E., and Deshields, O. W. (2005), “The effect of a market orientation on business performance: A study of small-sized service retailers using MARKOR scale”, *Journal of Small Business Management*, Vol. 43, No. 2, pp. 105-118.
- Katsikeas, C. S., Samiee, S., and Theodosiou, M. (2006), “Strategy fit and performance consequences of international marketing standardization”, *Strategic Management Journal*, Vol. 27, pp. 867–890.
- Kirca, A. H., Jayachandran, S., and Bearden W. O. (2005), “Market orientation: A meta-analytic review and assessment of its antecedents and impact on performance”, *Journal of Marketing*, Vol. 69, No. 2, pp. 24–41.
- Kohli, A. K., and Jaworski, B. (1990), “Market orientation: The construct, research propositions, and managerial implications”, *Journal of Marketing*, Vol. 54, pp. 1–18.
- Kohli, A. K., Jaworski, B. J., and Kumar, A. (1993), “MARKOR: A measure of market orientation”, *Journal of Marketing Research*, Vol. 30, No. 4, pp. 467–477.
- Kumar, V., Jones, E., Venkatesan, R. and Leone, R. (2011), “Is market orientation a source of sustainable competitive advantage or simply the cost of competing?”, *Journal of Marketing*, Vol. 75, pp. 16–30.
- Lackman, C., Saban, R., and Lanasa, J. (2000), “The contribution of market intelligence to tactical and strategic business decisions”, *Marketing Intelligence and Planning*, Vol. 18, No. 1, pp. 6–9.
- Lings, I. N., and Greenley, G. E. (2009), “The impact of internal and external market orientation on firm performance”, *Journal of Strategic Marketing*, Vol. 17, No. 1, pp. 41–53.
- Liu, H., Ke, W., Wei, K. K., and Hua, Z. (2013), “Effects of supply chain integration and market orientation on firm performance”, *International Journal of Operation and Production Management*, Vol. 33, No. 3, pp. 322–346.
- Maltz, E., and Kohli, A. K. (1996), “Market intelligence dissemination across functional boundaries”, *Journal of Marketing Research*, Vol. 33, pp. 47–61.
- Menguc, B., and Auh, S. (2006), “Creating a firm-level dynamic capability through capitalizing on market orientation and innovativeness”, *Journal of the Academy of Marketing Science*, Vol. 34, No. 1, pp. 63–73.

- Mintzberg, H., Ahlstrand, B., and Lampel, J. (2009), *Strategy Safari: The Complete Guide Through the Wilds of Strategic Management* (2nd ed.). New York: Pearson.
- Musterd S. (2014). Public housing for whom? Experiences in an era of mature neo-liberalism: the Netherlands and Amsterdam. *Housing Studies*, Vol. 29, No. 4, pp. 467–484.
- Narver, J. C., and Slater, S. F. (1990), “The effect of a market orientation on business profitability”, *Journal of Marketing*, Vol. 54, No. 4, pp. 20–35.
- Narver, J. C., Slater, S. F., and MacLachlan, D. L. (2004), “Responsive and proactive market orientation and new-product success”, *The Journal of Product Innovation Management*, Vol. 21, pp. 334–347.
- Noble, C. H., Sinha, R. K., and Kumar, A. (2002), “Market orientation and alternative strategic orientations: A longitudinal assessment of performance implications”, *Journal of Marketing*, Vol. 66, No. 4, pp. 25–39.
- Pallant, J. (2010), *SPSS survival manual: A step by step guide to data analysis using SPSS*. Maidenhead: Open University Press/McGraw-Hill.
- Public Municipal Housing Companies Act. (2010:879). “Lag om allmännyttiga kommunala bostadsaktiebolag”, <http://www.riksdagen.se/sv/Start/Sok/?sok=2010:879+allm%c3%a4nnyttiga&searchtype=all&facets=2&sortorder=desc&sort=rel> (accessed 17 September 2015).
- Rossiter, J. R. (2012), “Further comment on “market orientation”, *Australasian Marketing Journal*, Vol. 20, No. 1, pp. 108-112.
- Ruekert, R. (1992), “Developing a market orientation: an organizational strategy perspective”, *International Journal of Research in Marketing*, Vol. 9, No. 3, pp. 225–45.
- Statistics Sweden. (2015), “Statistiska Central Byrån”, Retrieved from <http://www.scb.se/>. (accessed 2015-04-05)
- Sundström, A., Ahmadi, Z., and Hyder, A.S. (2016), Market and innovation orientation typology: Proposition and illustrations. *Marketing Intelligence and Planning*, Vol. 34, No. 3, pp. 376–393.
- Swedish Association of Public Housing Companies (SABO). (2014), *Utredningsförslag om svaga marknader*. Sweden, Real Estate. http://www.sabo.se/om_sabo/om_webbplatsen/Sidor/Resultat.aspx/Results.aspx?k=Utredningsf%C3%B6rslag%20om%20svaga%20marknader (accessed 2015-06-15)
- Wang, C. H., Chen, K. Y., and Chen, S. C. (2012), Total quality management, market orientation and hotel performance: the moderating effects of external environmental factors. *International Journal of Hospitality Management*, Vol. 3, No. 1, pp. 119–129.
- Wilhelmsson, M., Andersson, R., and Klingborg, K. (2011), “Rent control and vacancies in Sweden”, *International Journal of Housing Market and Analysis*, Vol. 4, pp. 105–129.
- White, J. C., Varadarajan, P. R., and Dacin, P. A. (2003), “Market situation interpretation and response: The role of cognitive style, organizational culture, and information use”, *Journal of Marketing*, Vol. 67, pp. 63–79.
- Zebal, M. A., and Goodwin, D. R. (2011), “Market orientation and performance in private universities”, *Marketing Intelligence and Planning*, Vol. 30, No. 3, pp. 339–357.
- Zebal, M. A. and Saber, H. M. (2014), “Market orientation in Islamic banks—a qualitative approach”, *Marketing Intelligence and Planning*, Vol. 32, No. 4, pp. 495–527.