

STRATEGIC UTILIZATION OF CUSTOMER INFORMATION OR JUST MUDDLING THROUGH?

Abstract

This research focuses on customer information generation and utilization in business-to-business companies. Empirical evidence shows that customer information utilization may improve a company's customer and business performance. However, customer information utilization is underdeveloped in many companies. There is a clear question about whether companies use customer information to plan relationship strategies or simply to muddle through short term tactical day to day decisions. Based on findings from field interviews, the authors propose that the process of generating and using customer information might follow Lindblom's successive-limited comparison or muddling through method, which emphasizes small incremental changes, building up from the current situation, and shorter term orientation. Authors suggest that managers should balance their customer information utilization efforts by using both short-term and long-term methods when developing customer information generation and utilization.

Keywords: customer information utilization, business-to-business marketing, qualitative research, incrementalism

INTRODUCTION

Customer information is a complex type of information (Davenport, Harris, and Kohli, 2001); it comes from multiple sources both within and outside of the company, and is dynamic and can change rapidly (Mithas, Krishnan, and, Fornell 2005; Rollins and Halinen, 2005). Customer Relationship Management and other equivalent systems make possible for companies to track individual customer behavior and a company's ability to manage its customer information has become crucial in sustaining a competitive advantage in any industry (Hogan, Lemon, and Rust, 2002; Lambert, 2010). However, many researchers argue that the use of customer information that companies possess is underdeveloped in the context of marketing and sales decisions (Bose and Sugumaran, 2003; Pass, Evans, and Schlacter, 2004; Morgan, Mittal, and Anderson, 2005; Jayachandran, Sharma, Kaufman, and Raman, 2005; Moorman, 2009).

This research explores customer information generation and utilization in the business-to-business companies and this research aims at contributing new insights to information utilization and market orientation streams of literature. In marketing, market orientation and information utilization research streams largely overlap each other. Information utilization research emerged in the field of public policy making in the 1970s (Caplan, 1979), and it originally referred to using information generated by scientific research in decision-making in public policy. For decades, the process of information utilization within organizations has been an important area for research in light of its implications for organizational effectiveness in many disciplines such as nursing, public policy, marketing, and accounting (Menon and Varadarajan, 1992). The basic challenges in information utilization have not changed significantly since the 1970s, but the communication environment has radically changed. A key motivation for information utilization research still remains the same: companies often fail to use information already available to them (Maltz and Kohli, 1996; Moorman, 1996; 2009).

The findings from the field interviews suggest that developing and improving generation and utilization of customer information follows Lindblom's (1959) muddling through method, which emphasizes small incremental changes, building up from the current situation, and shorter term orientation.

This paper is structured as follows. The first section discusses the concepts of generation and utilization of customer information in the business-to-business context. The second section describes the methodology and research context. The third section discusses the findings from the field interviews and managerial implications. The fourth section is conclusions and avenues for future research.

BACKGROUND

Generation of Customer Information

Majority of companies generate amounts of customer information every day at the different levels of organization from customer service to accounting. In this research, the term customer information refers to customer-specific information, information about and from current and potential business customers within a seller company. Previous research in

marketing suggests that customer and market information utilization in business-to-business markets is inherently different from that in consumer markets (Deshpande and Zaltman, 1987; Srinivasan and Lilien 1999; Latusek 2010) because managing profitable business-to-business relationships requires a more complex stream of information about and from a specific customer than does product or transaction-driven marketing (Sisodia and Wolfe, 2000).

Generation of customer information involves turning customer data into customer information. This involves three stages: collection, storage, and analysis of customer data. Typically in business-to-business markets, a seller company collects four types of customer information about the buyer company: 1) market and industry level, 2) organizational level, 3) business unit and buying center level customer information, and 4) individual buyer level (Rollins, 2008). Customer information in all levels includes both quantitative and qualitative customer information. Quantitative customer information refers to numeric information, such as sales histories and qualitative customer information refers to information that is difficult or impossible to quantify, for example, sales person's expectations of the customer behavior based on experience in the field (e.g. Rowley, 2004). Qualitative customer information is needed for example when dealing with disagreements with long-term customers.

Davenport et al. (2001) explain that many companies have built large data warehouses, but they only have very few additional insights into their customers. Customer information converted from a company's databases only provides knowledge on past customer behavior, which is not adequate or even sufficient in business-to-business markets. Sawhney (2006) emphasizes that customer insights do not come from quantitative market research. He says: "You cannot generate insight out of numbers. Numbers help you to validate insights (Sawhney, 2006)."

Utilization of Customer Information

If managers and employees do not use customer information generated, customer information does not produce new insights or improve company's performance (e.g. Kohli and Jaworski, 1990). Past twenty years, marketing researchers have studied the use of market research results, market information, and competitive intelligence (e.g., Deshpande and Zaltman, 1987; Moorman, 1995; Maltz and Kohli, 1996; Celuch, Kasouf, and Strieter, 2000), but it has been only a few years since marketing researchers have started to explore how companies actually use the amounts of customer information generated within companies by different data management systems and by people in their marketing and sales decision-making (e.g., Jayachandran et al., 2005; Morgan et al., 2005).

In the previous information utilization literature, marketing researchers have largely focused on positive or desirable types of information utilization, such as instrumental or action-oriented information utilization (Deshpande and Zaltman, 1987; Moorman, 1995; Maltz and Kohli, 1996; Morgan et al., 2005). However, information use is not always desirable, or even useful, from a company's point of view (Vyas and Souchon, 2003). Therefore, in this research, the authors consider three types of customer information utilization: 1) action-oriented, 2) knowledge-enhancing, and 3) symbolic.

The first type of customer information utilization, action-oriented customer information utilization, refers to a direct application of information at hand (Menon and Varadarajan, 1992; Menon and Wilcox, 2000). Morgan et al. (2005) find that action-oriented customer

information utilization is a predominant way of using customer information. Action-oriented way of customer information happens for instance in customer service situations, preparing sales calls or tracking customers' payments; customer information fills the gaps in a decision-makers knowledge.

Knowledge-enhancing customer information utilization, or an indirect use of customer information, provides a general enlightenment of the situation at hand. Knowledge-enhancing customer information utilization manifests changes in the user's knowledge and understanding of the issues and themes (adapted from Menon and Wilcox, 1999). Simply, compared to action-oriented customer information utilization, knowledge-enhancing customer information utilization is a more strategic use of customer information, which also includes a collaborative aspect; customer projects completed within a company can provide concepts and models that help solving a customer's future problems (Arnett, Menon, and Wilcox, 2000). Although the benefits of knowledge-enhancing customer information utilization can be enormous for any company, it is difficult to identify by the users themselves and often requires significant Information Technology and human resources.

The third type of customer information utilization, symbolic customer information utilization, refers to situations where customer information is used for appearance's sake, not to bring any real insights to the decision-making process (Diamantopoulos and Souchon, 1999; Vyas and Souchon, 2003). For example, symbolic customer information utilization occurs when new customer information is used to justify the decisions that already have been made. Vyas and Souchon (2003) describe symbolic customer information utilization as "using information politically while responding to a hidden personal agenda, for example self-promotion." Symbolic customer information utilization is studied least in academic literature, although this type of customer information utilization might be the most common type of customer information utilization.

Muddling through method

Lindblom (1959) introduced the term muddling through method to the management literature in late 1950s. Since that time, the approach has received attention from researchers from a number of fields, such as public policy and marketing (e.g., Kirchner, 1993; Hallgren and Wilson, 2007). Lindblom (1959) describes two decision-making methods: the rational-comprehensive method, which is often taught in schools and universities, and the successive limited comparison method, or scientific muddling method, in terms of the 1) relationship between values and empirical analysis, 2) relationship between means and ends, 3) the test of "good" policy, 4) analysis, and 5) the role of theory. Table 1 provides a summary of two methods.

Table 1 Rational-Comprehensive and successive limited comparison methods (Lindblom 1959)

	Rational-comprehensive	Successive Limited Comparison
Relationship between values and empirical analysis	Distinct	Closely intertwined
Relationship between means and ends	First, ends are isolated, then the means to achieve them are sought	Not distinct, means-ends analysis is often inappropriate and limited
The test of “good” policy	It can be shown to be the most appropriate means to desired ends	Various analysts find themselves agreeing on a policy
Analysis	Comprehensive	Drastically limited
The role of theory	Relies heavily on theory	Reduces or eliminates reliance on theory

The greatest difference between the two approaches is the value selection or clarification. The successive limited comparison method starts with selecting value goals and empirical analysis of the needed action, whereas the rational-comprehensive method starts with clarifying of values or objectives distinct from empirical analysis. Furthermore, the rational-comprehensive method starts with isolating the ends, and then seeks the means that may achieve them. In the successive limited comparison method, means and ends are not distinct; decision-maker chooses them simultaneously.

Those who apply rational-comprehensive method view that decision correct or good, if decision shows to attain some specific objective. In the successive limited comparison method, the test of good policy bases on agreement with the policy itself, not necessarily agreement on values and objectives. Analysis process of two methods is also very different. The rational-comprehensive method ideally excludes nothing important, whereas in the successive limited comparison method, analysis is drastically limited. Lindblom (1959) views that values and empirical analysis often intertwine in decision-making process. He continues that there is a room for trial and analysis of interim results in order to successfully complete the processes.

Lindblom (1959) argues that nobody can actually practice the rational-comprehensive method when dealing with complex issues such as monetary policy or labor policy decisions. Therefore, he proposes that the successive limited comparison method, which focuses on small incremental changes and building up from the current situation, is closer to the actual reality of policy decision-making (or any decision-making) than the rational-comprehensive method, which starts with fundamentals each time. Therefore, the successive limited comparison method favors short-term decision making approach. The last difference between the two methods is the role of theory in decision making. The rational-comprehensive method relies heavily on existing theory, but the successive limited comparison does not.

METHODOLOGY AND RESEARCH CONTEXT

The purpose of this research is to explore and understand the generation and utilization of customer information in business-to-business companies. Research design follows the multiple case study approach (Eisenhart, 1989; Yin, 1994), which is particularly useful and

relevant in the business-to-business setting (Johnston, Leach, and Liu, 1999). Yin (1994) defines the case study method as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.” By using a multiple-case approach authors sacrifice empirical depth, but on the other hand, as Eisenhardt and Graebner (2007) state, tables and other visual devices are central to signaling the depth and detail of empirical grounding in multi-case research. In this paper, three tables (Tables 2, 3, and 4) aim at fulfilling this recommendation.

The research context of this study is the companies’ function in business-to-business markets. In this research, authors recruited companies based on their differences in terms of size (medium size and large companies), industry (transportation, utility, software, etc.), and characteristics of current customer base (small, medium or large). In addition, participating companies are in different stages of customer information generation and utilization development. At the time of the interviews, Companies A, B and E were at the early stages of developing customer information utilization; whereas Companies C and D were experts in generating customer information and they used customer information fairly efficiently in both short and long term purposes. Although case companies come from two countries (Finland and United States), country-of-origin was not a factor in selecting companies and this research did not aim at studying cultural difference in customer information generation and utilization. Table 2 provides a summary of the companies and interviews.

Table 2 Description of the informants and companies interviewed

Company	Informants	Description and industry	Country of origin; domestic or international involvement	Products and services offered	Current customer base
A	CEO VP of Sales VP of IM Marketing Manager Sales Manager (2 interviews)	A large business-to-business service provider	Finland; functions in ten countries	A wide range of customized and standard business-to-business services (security, maintenance etc.)	Diverse (private companies and government agencies), large customer base, long-term business relationships
B	VP of Marketing & Product Development	A middle-sized software development company	Finland; offices in eight countries	Standard and customized products and some support services for the products	Diverse (private companies and government agencies), moderate size customer base, long-term business relationships
C	Director of Marketing Services (2 interviews)	A large utility company	U.S., only domestic operations	Standard services	Very large and diverse customer base, short and long-term business relationships
D	Senior Manager Corporate Marketing Research	A large transportation company	U.S.; global company	Standard and customized services	Very large and diverse customer base, both short and long-term business relationship
E	Senior Consultant	A part of large electronics company	Finland/U.S.; a part of global company	Customized products and support services	Very small, homogeneous customer base, long-term business relationships

The primary data collection method and data source were in-depth interviews with participants in five companies. Three of the companies have headquarters in Finland and two in the United States. All the other companies, excluding company C, conduct business both domestic and international markets. Two of the companies, D and E, can be viewed as global companies. Companies A, C, and D are service-focused, and companies B and E are more product-focused.

Authors conducted twelve interviews. One interview was an expert interview and, therefore, this company was not included in the Table 2. Participants were highly knowledgeable about generation and utilization of customer information in their companies; they had been developing customer information management and Customer Relationship Management and worked in their positions for years.

Authors emailed the interview guide to each participant one week prior to the interview. The interview guide includes questions about the company's customer base, terminology a company uses, general questions about customer information management, challenges of customer information utilization, and questions concerning the systems used to store, analyze, and share customer information. Participants were encouraged to speak freely about their experiences of using customer information. All interviews, except one, were recorded as well as notes were taken during the interviews. Interviews lasted 45 minutes to 2 hours and were transcribed from the tape recordings.

There are a number of methods available to analyze qualitative data, such as using key words or themes to reduce and organize data (Huberman and Miles, 1984). Miles (1979) recommends that coding should be provided. In this research, interview data were coded according to the themes in the interview guide (Appendix I). After that, each company's process of customer information generation and utilization was described. The summaries were sent to the participants for review and revision. Summaries were revised based on the feedback. Last, the findings from each case were compared to each other.

FINDINGS FROM THE FIELD INTERVIEWS

Customer information generation

Generation of customer information involves turning customer data into customer information and it involves three stages: collection, storage, and analysis of customer data. Table 3 provides examples how companies generate customer information. One of the informants from Company A described general challenges of customer information generation process well:

“We have to understand a customer's soul, processes and business they are in as well as we can. We also need to understand our customer's strategy. ... This requires in-depth customer [-specific] information, and we should be able to manage it. ... Customer information is created in the different levels of a company and interaction, and it includes both soft or tacit customer information as well as system-based customer information. ... It is a tough challenge to put these together.”

All the informants strongly viewed that creating a better understanding of the customers in business-to-business markets goes far beyond knowing the preferences of customers, which results of collecting enormous amounts customer data from a number of sources. Participant from Company C, which has both business-to-business and consumer customers summarized this: “Needs of our business customers are greater and unique, we need customer information from each individual customer”.

Table 3 Examples of customer information generation in the companies interviewed

Company	Customer data collection	Systems storing customer data	Analyzing customer data
A	<ul style="list-style-type: none"> - Daily collection of customer data on customer's sites - Sales histories, contracts and offers, memos from the meetings - Customer satisfaction research 	<ul style="list-style-type: none"> - Recent change from multiple systems to one ERP/CRM system - Individual user's store data in their personal computers 	<ul style="list-style-type: none"> - Limited quantitative data analysis - Overwhelmed with analysis of customer data
B	<ul style="list-style-type: none"> - Basic customer information (transactional data) - Help desk information - Information about individual buyers/buying center 	<ul style="list-style-type: none"> - Three main systems store customer data - A new CRM system implemented 	<ul style="list-style-type: none"> - Customer case studies written - Collaboration between country offices in analyzing customer data - Fairly limited quantitative customer data analysis
C	<ul style="list-style-type: none"> - The basic transactional customer data - Customer complaints - Customer satisfaction research - A number of sources for customer data 	<ul style="list-style-type: none"> - Various CI management systems used to store customer data 	<ul style="list-style-type: none"> - Excellent data analysis capabilities - Human capabilities emphasized - Combining customer and market data
D	<ul style="list-style-type: none"> - The basic, transactional customer data - Customer interviews, surveys 	<ul style="list-style-type: none"> - The basic customer data stored in one system 	<ul style="list-style-type: none"> - Excellent quantitative and qualitative data analysis capabilities - Combining qualitative and quantitative customer data
E	<ul style="list-style-type: none"> - The basic transactional customer data - Specific data on individual buyers/buying center 	<ul style="list-style-type: none"> - The basic customer data stored in one, global system 	<ul style="list-style-type: none"> - Quantitative customer data is never analyzed - Case studies are sometimes written

All companies interviewed collect both quantitative and qualitative customer information. For example, participant from Company D illustrated the company's customer data collection as follows:

"We have various tools: in-depth interviews, focus groups, questionnaires, surveys. We typically have a series of qualitative steps, we have to get language, we have to know what pain points are, we do observation work to see their processes --

Understanding their whole flow of information, technology, sales systems, how we can intercept with that.”

The participant continued by describing the amount of customer data collected by only interviews: “We are talking with 200-300 customers/day, 280-300 days/year. Combination: phone and face-to-face. We do deep dives.” Informant added firmly: “Here customer information is never collected for the sake of collecting.” On the other hand, in Company E, collecting customer data was completely opposite: “Nobody takes care of our customer database. Everybody can save anything there, in any format. It is difficult to find anything (useful) there. A huge problem.” However, at team level, Company E collects highly individualized CI about buyers and buying center such as meal preferences of the customer’s key personnel.

Participants from Company A and C point similar problems in collecting important customer data through sales and technical personnel. One participant from Company A said:

“One of our biggest problems is that people in the field [sales people and technical crew] do not bring their knowledge about customers to the home base, even if it is made possible. This everyday customer data is very important for us. For instance, to know how satisfied our customers really are. Where there our competitors’ guys in the customer’s lot and so on?”

Companies interviewed for this research have different solutions to storing vast amounts of customer data and customer information. Two companies, Company D and E have one, main customer data warehouse, whereas Company A, B, and C used a number of systems. For instance, Company B has three main systems for storing customer data: 1) CRM system, which is the official customer database, 2) helpdesk, which contains data about customer’s preferences and problems solved for the customers, and 3) licensing database that stores detailed information on each customer. Participant from Company B hopes that company would focus on integrating the systems storing customer data. Company D’s participant lists strengths and weaknesses in one customer data storage: “Everything we need is always there, but it is a bear to update. It is hard to build new structures to it. It takes lots of planning.” During the interviews, Company A was on the process of moving toward one customer database. One participant from Company A points out the common challenge and problem in storing customer data and customer information in companies: “We store lots of important customer data in our personal computers and personal emails.” Furthermore, majority of the participants from Company A call for developing system that could store more qualitative customer data.

Analyzing customer data is the last step in generating customer information. All the companies participated in this research collect both quantitative and qualitative customer information. All participants view that data cannot be turned into information without investments in both systems as well as people. Company D’s participant described the situation: “Our company has too much data! This is our greatest challenge. We put summaries on customer information to the Intranet, and provide access to it by level. We have presentations in different departments etc”. He emphasized company’s data analysis capabilities in converting data into information. Participant from Company C also noted: “Human thinking is needed in converting customer data into customer information.”

During the interviews, Company A and B were in the process of developing more efficient and sophisticated customer data analysis processes and investing in new data analysis tools. Company A's participants were satisfied with the progress of the new system implementations; generating and using customer information about key customers had greatly improved past year. Company E's situation was very different: "Nobody analyzes customer data from the customer database."

The gap between generating and using customer information

"Data, data everywhere, and not a byte for use" is an unfortunate reality in many companies when describing the relationship between generating and using customer information (Abbott, 2001; Moorman, 2009). The findings from interviews suggest that the amounts of customer information collected is a good indicator of the actual customer information utilization, if the systems and, especially, the analytic capabilities, systems and people, are in place. Participants from all companies agree that utilization of customer information should lead the collection of customer data. However, reality is different. The following quotation from Company E illustrates the gap between collecting and using customer information well: "We would have more information on our customers, but we are not very good at using it... I mean that we are not using customer information and resources we already have. Everybody tries to reinvent the wheel again." One participant from Company A views a problem in the business where information about customer operations is tracked very frequently, sometimes hourly: "Who is going to analyze this customer data and package it to the customer the way that customer could also use it?"

Customer information utilization

Table 4 summarizes three different ways that companies use customer information. Morgan et al. (2005) find that companies tend to use customer information action-oriented way, i.e. using customer information directly to solve the problem at hand. This research has a similar finding; companies consider action-oriented customer information utilization as a first step for developing and improving customer information utilization. In addition, when participants talked about customer information utilization in the interviews, they mostly referred to action-oriented customer information utilization such as using customer information customer support and service functions, or simply serve their customers better and improve customer satisfaction. For example, Company E's participant illustrates action-oriented customer information utilization as follows:

“We try to find out how our products and services work for the customer, and this information is used in marketing and sales of these products and services. If we find out that something is not working in the customer's plant, we sell the service to make it work better. We try to sell services to the same customers.”

For instance, using customer information in developing new service and product offerings is action-oriented way of using customer information. Participants from Companies C and D stated that they use customer information extensively in developing new products and services. Company B viewed this as one of their future goals.

Table 4 Customer information utilization in the companies interviewed

Company	Action-oriented CI utilization	Knowledge-enhancing CI utilization	Symbolic CI utilization
A	<ul style="list-style-type: none"> - Customer service support - Planning offers to current and potential customers 	<ul style="list-style-type: none"> - Calculating customer lifetime value for key customers 	<ul style="list-style-type: none"> - Distortion of CI when passed on. - Instinct used more than CI.
B	<ul style="list-style-type: none"> - Customer service support - Planning offers to current and potential customers - Fixing software based on the customer feedback 	<ul style="list-style-type: none"> - Customer cases used in new employee training 	<ul style="list-style-type: none"> - No clear examples mentioned.
C	<ul style="list-style-type: none"> - Customer service support - Planning offers to current and potential customers - Developing new service offerings 	<ul style="list-style-type: none"> - Analyzing trends and markets from customer data - Combining customer data and market data 	<ul style="list-style-type: none"> - CI used "creatively", not always the way it was intended to use
D	<ul style="list-style-type: none"> - Customer service support - Planning offers to current and potential customers - Support for marketing department in creating messages - Developing new service and product offerings 	<ul style="list-style-type: none"> - Segmenting customers new ways - Combining customer data and market data - Writing customer reports - Calculating customer profitability - Strategic level customer retention studies 	<ul style="list-style-type: none"> - Not mentioned directly.
E	<ul style="list-style-type: none"> - Customer service support - Planning offers to current and potential customers 	<ul style="list-style-type: none"> - Generic customer cases used more broadly in marketing and sales - Managing customer relationship based on CI 	<ul style="list-style-type: none"> - "Happens all the time", customer data base is very disorganized

The knowledge-enhancing customer information utilization, occurs when projects and studies within an organization have provided concepts, models, and theories that can be utilized to solve broader problems with customers or the customer base (Arnett et al., 2000). Company D's participant illustrates this as follows: "We have to triangulate customer information... We have 1-to-1 correspondence with the customers, and we have to build groups."

Using customer information knowledge-enhancing way requires combining customer data from different sources, such as from a Customer Relationship Management system, customer satisfaction survey, and sales reports, maybe outside of the company, and putting it all together in order to build new ideas. This type of customer information utilization relies typically less on technology than action-oriented customer information utilization. For instance, Company B has customer case workshops, in which they teach new employees about their current customers and their business overall.

Some informants recognize the importance of teaching and sometimes re-training people how to use customer information and what is already available for them. Participant from Company C says: "In general, I believe that you have to have small successes. What we have done after few false starts, instead of building a big system that would tell you everything about your customers. We have done this case by case basis." He adds that Company C's employees have become more proactive using customer information available to them.

As expected, participants agree that knowledge-enhancing customer information utilization is an important issue, but far less investment of time or money is made to develop and improve it. For example, all Company A's participants recognize knowledge-enhancing customer information utilization as an important issue, but they have faced a number of challenges, such as simply a lack of time and tools, analyzing customer data from several sources. One of them points out: "We need more customer orientation education than technical CRM education, if we want to improve our customer information use." Company A's has attempted to calculate customer profitability for all customers, which illustrates using customer information knowledge-enhancing way.

Sometimes people use customer information for only appearance's sake, not for its information value (Vyas and Souchon, 2003), that is, symbolic customer information utilization. Companies A, C, and E mention and describe symbolic customer information utilization in their companies. Participant from Company C faces symbolic information utilization every day: "Ultimately, this comes to the end that many employees just want to have 'the list' (such as customer preferences). It takes a lot of education to change behavior because 'the list' can be misused or not used at all for the purpose it was created."

DISCUSSION

Lindblom (1959) proposed that the successive limited comparison method or muddling through method, which focuses on small incremental changes and building up from the current situation, represents the actual reality of policy decision-making (or any decision-making) better than the rational-comprehensive method. In muddling through method, analysis is drastically limited in order to find the solution to the complex problem. The decision concerning the development of customer information generation and utilization are not policy decisions, but there are many similarities in the process that Lindblom outlined (adopted from Hallgren and Wilson, 2007).

Moorman (1995) reports that action-oriented and knowledge-enhancing information utilization, although they may greatly support each other, have different outcomes and they follow different processes. For instance, Menon and Varadarajan (1992) suggest that improvements in knowledge-enhancing customer information utilization may actualize as long-term benefits, whereas action-oriented customer information utilization tends to have shorter-term effects. Companies that participated in this research generally view action-oriented customer information utilization as easily recognizable and measurable. Action-oriented customer information utilization has practical short-term benefits such as an ability to serve customers better with up-to-dated customer information. Knowledge-enhancing customer information utilization, such as using customer cases in new employee training, requires longer-term approach in developing understanding of the customer. Customer information was also used symbolically, not for its information value, in the participating companies.

Findings from field interviews suggest that companies might follow Lindblom's (1959) muddling through method, which focuses on small, incremental, and often shorter term successes, when developing their generating and utilizing customer information. However, the findings also suggest that small, incremental changes and successes in developing customer information generation and utilization can stimulate the generation of more relevant and usable customer information. Participants agreed that utilization of customer information should determine what types of customer information is actually collected.

Managers should be aware that although skillful muddling is an important skill in making sense of amounts of customer information, it may only be efficient in short-term. However, more strategic development of customer information generation and utilization, that is, knowledge-enhancing customer information utilization, requires a more planned approach and more in-depth analysis of customer information.

CONCLUSION

Developing customer information generation and utilization is a challenging and constantly changing task in the companies, which can have significant short and long terms benefits for the company such as increased customer satisfaction and customer performance (see: Zahay and Griffin, 2010; customer-based performance measures). The findings from this research suggest that companies might follow Lindblom's (1959) muddling through method when approaching and developing their generating and utilizing customer information instead of using more strategic approach. Managers are going from decision to decision as they come up rather than taking a longer-term, planned approach to develop and improve customer information utilization. Skillful muddling can be an important skill in making sense of amounts of customer information in short-term. However, companies should balance muddling through approach with more strategic, longer-term approach.

There are a number of avenues for future research in area of customer information generation and utilization. This research was the first step to view customer information utilization through Lindblom's theory. Future research could view customer information through Sarasvathy's (2001) work, which parallels Lindblom's (1959) work. Effectuation (Sarasvathy (2001) is an alternative process of decision making in comparison to the dominant one of causation in management literature.

This research focused on business unit/company level customer information generation and utilization. Future research could study more closely individual-level customer information utilization (see: Celuch et al., 2000) by studying a skillful muddling, and how individual managers balance their efforts in using customer information shorter and longer terms goals. Future research could also use quantitative research approach to examine more closely how many companies or managers actually follow muddling through method. In addition, it would be interesting to test how muddling through customer information utilization might affect a company's customer-related performance such as customer satisfaction.

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Appendix I Interview guide for the field interviews and coding interview data

- Background about the company and informant (unit, experience within the company, field etc), current customer base and potential customers of your company; the types of customer relationships.
- Terminology used in your company: customer information, market research information, marketing information, market information, customer data
- The importance of customer information management and use in your company/industry; What kinds of customer-specific information does your company possess on your current business customers? How do you collect customer information from your business customers at the business unit level, in general?; What kinds of customer information are collected?
- What is the quality of customer information residing in your company? What is the availability of customer information?
- Storing and analyzing customer information in your business unit/company, and sharing and disseminating customer information in your business unit/company
- The usage of customer information within your business unit/company. What kinds of purposes are customer information used in your company? What kinds of purposes customer information could be used? What are the areas you think are the most important ones?
- What kinds of systems are used in storing customer information? Centralization of these systems? Usage of these systems?
- Challenges in managing and using customer information in your company/in your industry and privacy issues regarding customer information collection and use on business customer?

