Customer Relationship Marketing (CRM) Practices in Danish Small Businesses

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Abstract This paper examines the extent to which the adoption of CRM software packages is a pre-requisite of customer orientation strategies of small firms. This is done by conducting an empirical investigation into the internal determinants of CRM adoption behavior of 179 randomly selected small firms in the Northern Jutland region of Denmark. The results suggest that top managers in these firms endorse the strategic value of customer orientation to their businesses but do not consider CRM software packages as necessary for building strong relationships with their customers. This suggests that small firms may make their CRM adoption/rejection decisions on the basis of a trade-off between expected benefits from using the available CRM packages compared with alternative modes of achieving customer loyalty.

Keywords customer-orientation; CRM; market orientation; Denmark

1. Introduction
Since the seminal works of Kohli and Jaworski (1990) as well as Narver and Slater (1990) on market orientation of firms, there has been a strong revival of academic and business interest in the development of tools and models for implementing customer-oriented strategies within firms. Customer Relationship Management (CRM) has emerged in the literature as one of the most popular business tools in the area to date, partly as a result of a number of successful CRM projects in the early 1990s. Firms that adopt CRM as a corporate strategy are expected to grow at a faster pace and perform better than those without CRM strategies within the same industry (Chattopadhyay 2001, Corner and Hinton 2002, Kotorov 2003).

For most people, CRM is an ICT-based management tool. It integrates hardware and software applications that enable firms to store data about their customers and make such data readily available to their employees through on-line retrieval systems (Crosby 2002). The stock of knowledge produced by the CRM application improves firms’ awareness of changes in their customers’ preferences and strengthens their responses to these changes. Data mining tools, in particular, are expected to provide frontline employees with ready profiles of focal customers, including interaction histories, credit ratings, financial transactions, and product/service usage. Thus, some scholars see customer orientation as data-driven marketing (Albreath 1998, Couldwell 1999).

Some recent studies have, however, shown that not all firms have fully embraced CRM technology (Kotorov 2003). This raises the question as to whether non-adopters of CRM are less customer-oriented than adopters or whether firms could still be customer-oriented without
adopting CRM solutions. To address this question, we need to gain an insight into the determinants of CRM adoption and compare adopters with non-adopters in terms of their customer-oriented dispositions.

The present study has been guided by this research concern. It reports the results of an empirical investigation into CRM adoption behavior among firms in the Northern Jutland region of Denmark. The paper contributes to our knowledge about CRM practices in two main areas. First, it analyses the determinants of CRM adoption decisions of small and medium-sized firms, focusing attention primarily on internal determinants, such as top management attitude to customer orientation strategies (including CRM). Second, it examines the extent to which the adoption of CRM is a pre-requisite of customer-orientation strategies of these firms. Three research questions (RQ) have guided the study:

RQ1: What is the current state of CRM adoption of SMEs in Northern Jutland?
RQ2: What factors influence adoption of CRM in Northern Jutland?
RQ3: Are there any differences between adopters and non-adopters in terms of customer-service strategies, and usage of ICT?

The remainder of the paper is structured as follows. First we provide an overview of existing perspectives on factors that influence CRM adoption. The discussions focus mainly on internal determinants of CRM adoption and cover such factors as the demographic profile of firms, the roles that top management is expected to perform in the adoption and implementation process, and the role of IT systems in the CRM projects. The methodology and research design are then presented and discussed, followed by a presentation of the findings of the survey of 179 randomly selected firms in Northern Jutland. The results of the survey are then discussed in terms of their implications for theory, strategy, and future research.

2. Theoretical Roots of CRM

There is an agreement among CRM scholars that market orientation literature provides the theoretical legitimacy for the CRM concept (Zinkham 2002, Bose 2002). Market orientation places customers at the centre of business strategies. It builds on the economic concept of consumer sovereignty (Dickson et al. 1986), which holds that consumers dictate what firms should produce and how to deliver the values that they are prepared to pay for. The implementation of customer-oriented strategies requires that producers must obtain adequate and timely information about customers’ needs, expectations, and propensities to pay for the delivered values. Thus, Narver and Slater (1990) perceive market-oriented firms as those that are customer-oriented, i.e. gaining insight into customers’ needs and market service requirements. Kohli and Jaworski (1990) went further to define market orientation as composed of three components:

- Organization-wide generation of market intelligence, pertaining to current and future customer needs
- Dissemination of this intelligence among departments of the organization.
- Organization-wide response to the knowledge derived from the market intelligence.
That is, market-oriented firms are expected to gather, interpret and use market information in a more systematic, thoughtful, and anticipatory manner than less market-oriented firms. Narver and Slater (1990) also regard high level of inter-functional co-ordination of market information and activities within a firm as a key characteristic of a market oriented firm. The theoretical thinking underpinning the specific components of the CRM package are discussed below.

2.1 Customer Knowledge Generation and Dissemination
As indicated above, market orientation literature suggests that customer information is one of the most fundamentally important aspects of managing prospective and existing customer relationships. Nwankwo (1995) stated that insufficient understanding of the customer will, at best, result in superficial changes in organizational practice. By expanding the type of information collected about current and prospective customers and increasing the number of people who have access to the information, firms are able to base their customer-oriented marketing strategies on solid and reliable knowledge about those they intend to serve. Thus, Bose (2002, p.89) defines customer orientation as “an enterprise-wide integration of technologies working together such as data warehouse, web site, intranet, extranet, phone support system, accounting, sales, marketing and production.” The understanding here is that CRM-based information and communication technology (ICT) would strengthen firms’ abilities to become customer-oriented.

The Customer Knowledge dissemination component of CRM involves ensuring vertical and horizontal flows of customer-related information within and between departments (Kohli & Jaworski, 1990). This may be done through the establishment of a database on customers (covering the expressed needs, as well as satisfaction and complaints about current products and services offered), the circulation of periodic newsletters, formal meetings, and informal story telling. Appropriate and smooth dissemination procedures must ensure that all departments and employees of an organization understand the importance of the effective use of disseminated information and create a favorable climate for using this information through inter-functional coordination (Narver & Slater, 1990).

Some scholars have, however, argued that customers may not always provide useful information for business strategy formulations (Dickinson et al 1986, Day 1994). This is because, when asked about their wants, customers lack the imagination to suggest radical changes in products. Furthermore, consumers act highly rationally within some sets of false beliefs, resulting in buying predictions that may not be validated by subsequent actions. These reservations have, however, made limited impact on the academic belief in the importance of customer-based information as a basis for marketing strategy formulation.

2.2 Customer Orientation and CRM Adoption Behavior
It has been noted earlier that CRM solutions are ICT-based. We, therefore, turn to technology adoption literature to understand the determinants of CRM adoption. Technology adoption in business has been discussed by scholars such as Reingantum (1981), Kalish and Lilien (1986), Davis, Bagozzi, and Warshaw (1989), Tornatzky and Fleischer (1990), as well as Rogers (1995) and Astebro (2002). These studies have identified two broad categories of factors that
influence technology adoption behavior of firms – external and internal factors. One of the well-established models for understanding the process is the epidemic model. This model (and its variants) assumes that the diffusion of new technology is like that of an infectious disease. Non-adopters adopt a new technology when they come into contact with adopters and learn about the new technology. Over time, the number of adopters increases, leading to an increased probability of any given non-adopter learning about the technology. This increases the rate of diffusion. As more people adopt, the number of non-adopters declines, which decreases the rate of diffusion. Firms have, however, varying thresholds beyond which they will give in to innovation adoption pressures. Firms with lower thresholds give in to smaller conformity pressures, raising the number of adopters and the strength of conformity pressure and prompting firms with higher thresholds to imitate.

Scholars who investigated the impact of external triggering cues on technology adoption draw attention to the influences from changes in industry structure (Porter 1980), network externalities, and social interactions that provide channels for communicating new technologies (Von Hippel 1988, Schilling 2002). Other scholars have drawn attention to the market characteristics of the economy in general as impacting technology adoption (Avlonitis and Gounaris 1999, McCole and Ramsey 2005). Avlonitis and Gounaris, for example, argue that firms operating in weak economies with stable or decreasing markets are more likely to adopt customer-oriented strategies than those operating in strong economies where demand is growing and competition is less intense. Conversely, the more intensive competition is in the operating environment, the more responsive are firms expected to be towards changing needs of existing and potential customers (Pelham & Wilson 1996).

Previous research suggests that the internal determinants of CRM adoption may be grouped into two categories – (1) demographic profile of firms (including size, line of business and history), and (2) management beliefs, preferences, and actions (Tornatzky & Fleischer 1990). Nielsen (2003) identifies firm size and previous ICT experience as key determinants of CRM adoption. Similarly, Pennings and Hrianto (1992) argue that if firms have capabilities for IT development, they would be more prepared to implement IT-related management systems. Srinivassan et al. (2002) suggest that organizations with strong technological “sense-and-respond” capability are more likely to adopt IT-related technology, such as CRM.

Other internal determinants identified in the literature are organizational innovativeness (Deshpandé & Farley 1998), technology portfolio and competence (March & Sproull 1990), top management belief in staff development and organizational routines (Nelson and Winter 1982), and learning and absorptive capacity (Cohen & Levinthal 1990). Our hypotheses have been based on the internal determinants identified in the literature, with particular focus on demographic characteristics and management preferences.

3. Hypotheses
3.1 Top Management Attitude and Perceptions
The literature suggests that top management’s attitude to customer orientation constitutes a key determinant of CRM adoption by a firm. In addition to top managers’ mere involvement
and taking critical decision regarding the purchase of CRM technology, their role in encouraging other organizational members to become customer-oriented has been noted in the literature. Levitt (1969) suggests that continuous reinforcement by senior management is required if individuals within a company are to be encouraged to generate, disseminate and respond to customer and competitor-related information. Furthermore, Wood and Robertson (1997) suggest that top management perception and predisposition towards CRM affects the specific strategies that firms adopt and implement. Farrell (2000), also, showed in a study of Australian firms that top management behavior and leadership styles significantly impact employee’s learning and market orientation.

Daft (1978) draws a distinction between technology-oriented innovations and administrative/management oriented innovation. The latter are facilitated by a top-down strategy (i.e. initiated by top management), while the former are bottom-up (i.e. initiated by technical staff of business organizations). Following this viewpoint, CRM spans both management and technical change processes and can be said to require close interaction between top management and operational staff in a firm (Nielsen 2003).

It is not always certain that the actions that firms take correspond with the beliefs and attitudes of the firms’ top management. Following Argyris and Schön (1974), a distinction can be drawn between what organizations actually do in practice and what they officially claim to do. The former can be described as theories-in-use, while the latter (what managers would like others to think they do), can be called espoused theory. Several factors account for the discrepancy between espoused theories and theories-in-use. Some of these are internal (i.e. within the organization or individuals); others are external (i.e. embedded in the operational context of firms and individuals).

In the CRM adoption behavior of firms, for example, resource constraints may prevent a firm from acting on its beliefs. Thus, although the firm believes strongly in customer value creation, it may be incapable of translating that belief into action. Furthermore, differences may also exist between top management perception of the role of modern technology in ensuring effective relationship between their staff and their customers. These differences may be generational or reflect differences in mindset. In line with this thinking, Deshpandé and Farley (1998) suggest that customer orientation must be seen in terms of the actual activities that firms undertake. When an organization believes strongly in customer orientation, its members are willing to acquire the knowledge and skills required to adopt customer-oriented behavior. Thus the competence orientation of organizational members reflects the customer-oriented disposition of the organization. These viewpoints support the following hypotheses:

\[ H_1: \text{The stronger top management belief in customer orientation among firms in Northern Jutland, the greater their preparedness to invest in the acquisition of competence required to implement customer-oriented strategies.} \]

\[ H_2: \text{The stronger the belief in customer orientation among top management of firms in Northern Jutland, the greater their preparedness to invest in ICT support systems in general and CRM solutions in particular.} \]
3.2 Firm Size
Building on some of the prior research in the diffusion of innovations mentioned above, we argue that there is a positive relationship between firm size and CRM adoption. Large firms would have a greater tendency to adopt CRM due to such factors as economies of scale in ICT usage (Kimberly and Evanisko 1981), the availability of slack resources (Eveland and Tornatzky 1990), and the ability to bear adoption risks (Hannan and McDowell 1984). These factors improve the larger firms’ organizational readiness to facilitate adoption. Furthermore, Nelson and Winter (1982) suggest that larger firms are in a better position to appropriate the returns on innovation activities and have a considerable resource base to invest in new technologies.

On the other hand, small firms are found to be a lot more sensitive to risk than large firms, and this would limit their willingness to adopt new technologies (Walker 1975, Delone 1988). The attitude toward risk adds to such other characteristics as limited technical expertise (Barry and Milner 2002) and limited capital (Raymond 2001) to weaken small firms’ capacity to innovate. These observations have led to the following hypothesis:

\[ H_3: \text{The smaller the North Jutland firm, the less likely it is to adopt CRM solution as a basis for its customer-oriented strategy.} \]

3.3 Line of Business
Industries differ in terms of their overall technology competence (Bharadwaj 2000) or technological sophistication (Raymond and Paré 1992, Iacovou et al. 1995). Industries that already have high levels of IT sophistication are less likely to feel intimidated by new technologies such as CRM. They are also more likely to have the technological and managerial resources necessary to adopt the CRM solution. Prior research has also demonstrated that the stock of knowledge within the industry about a particular type of technology does impact adoption decisions. Such factors as knowledge spillover in the industry (Astebro 2002), skill labour concentration (Kolko 2002), and the strategic necessity of a specific type of innovation within the industry (Engsbo et al. 2001) tend to have strong impact on the preparedness of firms in a particular industry adopt a new technology.

A study by Hollenstein (2001) showed that high tech manufacturing firms and firms in modern service industries (e.g. business services, R&D and IT firms, as well as banking and insurance firms) show a strong tendency to adopt new technologies. Firms in low-tech manufacturing and “traditional services” are in a medium position, whereas firms within the construction industry are clearly lagging in new technology adoption decisions. Similarly, a recent EU study showed a general reluctance of firms within the automotive industry to adopt e-business solutions due to suppliers’ security concerns and firms’ preferences for proprietary systems rather than industry-wide platforms (EU- eBusiness Watch 2005). We therefore hypothesize as follows:

\[ H_4: \text{Firms engaged in high tech and R&D intensive businesses are more likely to adopt CRM solutions than firms engaged in traditional lines of business.} \]
3.4 Age of Firms
The theoretical arguments that relate the age of firms to ICT adoption decisions are double-edged. On the one hand, young firms are likely to be relatively small and, therefore, lack the resources, managerial capabilities, and the scale advantages associated with ICT adoption. They are, therefore, likely to exhibit lesser preparedness to make the necessary investments in the new technology. On the other hand, younger firms are more likely to find themselves in the modern or high tech sectors of an economy and, therefore, prove to be more willing to embrace innovative developments and accept organizational changes that are required to reap the benefits of the innovation. Furthermore, new firms invest in new technology while older firms replace existing technology. This implies that younger firms would be more willing to consider technologies that combine to make their overall technological package up-to-date and thereby strengthen their competitive position from the initial stages of their establishment. Older firms tend to exhibit stronger defensive mechanisms and, therefore, stronger resistance to change. Similarly, Chan-Olmsted (2005) argues that length of firm's existence in a market is often positively related to the firm’s acquired experience, strategic adjustment capacity, as well as a tendency toward risk aversion. Thus, depending on the perspective, firm age can either impede or foster new technology adoption. We have, however, decided to test the following hypothesis:

\[ H_5: \text{The younger the Northern Jutland firm, the more prepared its management will be to adopt CRM solution to support its customer-oriented strategies.} \]

4. Research Methodology
4.1 The Questionnaire and Measures
The survey instrument used in the present study measured respondents’ opinions on three broad issues: (1) views on customer orientation within the firms, (2) the implementation of customer-oriented strategies in general and CRM in particular, and (3) the impact of customer-oriented practices on firms’ operations. Drawing on previous empirical studies of market orientation in general (Narver and Slater 1990, Jaworski and Kohli 1993) and CRM in particular (Stefanou, Sarmaniotis and Stafyla 2003); we used a 25-item scale to measure respondents’ views of the customer-oriented dispositions of their firms. Of this, 10 relate to top management attitude, 10 to views on competence requirements within the organization for implementing customer-oriented strategies, and 5 to views on the role of ICT support systems. Another set of 38 items measured the strategies adopted to implement customer orientation. Of this, 14 relate to top management commitment and resource allocation to the implementation of customer-oriented strategies, 13 relate to information collection, analysis and dissemination, 5 relate to employee competence development (e.g. through training), and 6 to the use of ICT support systems.

Respondents were required to express their opinions on the degree to which each dimension of customer orientation is present in their firms using a Likert-type scale in responding to the various items. Each item was scored on a 7-point scale ranging from “strongly disagree” to “strongly agree.” The questionnaire also required respondents to provide information on the demographic characteristics of their firms (e.g. year of establishment, line of business and
number of employees) to enable us test some of the hypotheses stated above.

4.2 Sample and Data Collection
The data were collected in 2004 from a sample of 250 Danish firms located in the Northern Jutland region using the company register at the regional level as a sampling frame. We used a non-interactive self-administered data collection process, meaning that questionnaires were mailed to the companies in the sample along with a cover letter explaining the objectives of the study and requesting the CEO or a senior manager in charge of marketing and related tasks in the firms to fill it out. A second mailing was made to all non-respondents three weeks later.

Of the 250 questionnaires distributed, 188 were retrieved. Nine were, however, rejected due to too many missing data, leaving 179 usable responses. All respondents included in the final data set held either top or middle level management positions and were involved in overall business/marketing strategy formulation or implementation of marketing plans. Their responses, therefore, provide a good indication of their firms’ customer-oriented dispositions and marketing philosophy, as well as decisions regarding CRM adoption.

The survey data have been supplemented by semi-structured interviews with respondents from 6 of the firms in the sample and 4 consultants that advised companies in the region with respect to CRM implementation. The aim of these interviews was to gain a deeper insight into their views on CRM adoption in Northern Jutland.

5. Survey Results
This section starts with a discussion of the overall attitude to customer orientation reported by the Danish firms and tests the hypotheses formulated earlier in the paper. This is followed by discussions of the implementation and consequences of CRM strategies.

5.1 Adopters versus Non-Adopters of CRM
Out of the 179 companies included in this analysis, 101 of them were aware of CRM as a management tool prior to the study, while 78 were not aware of its existence. Table 1 provides a distribution of the attitudes of the 101 companies to the adoption of CRM. Nearly 35% of the 101 firms were adopters (22% were already using CRM solutions while 13% were in the process of doing so), 42% were prospective adopters (they would like to use CRM), while about 22% were non-adopters (they were not interested in CRM). For the purposes of this analysis, we classified the prospective adopters as non-adopters, since there is no guarantee that their adoption interests would be translated into actual adoption decisions. The total group of non-adopters was, therefore, put at 144 (i.e. the 78 companies that were unaware of CRM as a management tool and the 66 companies that were aware of it but had not as yet decided to adopt it). Thus only 19% of the firms in the sample are real adopters and the remaining 81% were classified as non-adopters at the time of data collection.
Table 1. Adoption Preparedness of Companies

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>We use CRM today.</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>We are working on the implementation of CRM in the company.</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>We do not use at present. We are considering it.</td>
<td>43</td>
<td>24</td>
</tr>
<tr>
<td>We are not interested in CRM.</td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>We have not heard of CRM, and we do not intend to use it.</td>
<td>78</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
<td>100</td>
</tr>
</tbody>
</table>

5.2 Overall Views on Customer Orientation

Taken together, all the companies in the sample have a very positive attitude to customer orientation. As shown in Table 2, the respondents reported that their executives saw customer orientation (and customer retention in particular) as strategically important to their businesses and placed strong emphasis on its integration into their overall business strategies. They also believed that the availability of ICT support systems, as well as staff competence in applying them, constitute prerequisites for effective customer orientation. Nearly all of them agreed to the statement that customers must be served well for them to remain loyal.

Table 2. Overall Views on Customer Orientation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Adopters</th>
<th>Non-Adopters</th>
<th>Total</th>
<th>t-Value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management has positive attitude towards customer orientation</td>
<td>6.4</td>
<td>6.3</td>
<td>179</td>
<td>95.20</td>
<td>0.0001</td>
</tr>
<tr>
<td>Employees must develop skills and competence for effective customer orientation</td>
<td>5.9</td>
<td>5.8</td>
<td>179</td>
<td>77.21</td>
<td>0.0001</td>
</tr>
<tr>
<td>ICT-systems support required for the efficiency of customer orientation</td>
<td>5.9</td>
<td>5.9</td>
<td>178</td>
<td>60.50</td>
<td>0.0001</td>
</tr>
</tbody>
</table>
Opinions expressed on the benefits of customer orientation are presented in Table 3. The results show that most of the respondents agree that customer orientation would provide their companies with increased economic and organizational benefits such as profits, increased market share and growth. This would require internal dissemination of customer information, and offering individually differentiated customer services.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Adopters</th>
<th>Non-Adopters</th>
<th>Total</th>
<th>t-Value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Std. Dev.</td>
<td>Mean Std. Dev.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased economic and organisational benefits</td>
<td>4.8 1.7</td>
<td>4.2 1.9</td>
<td>33</td>
<td>16.26</td>
<td>0.0001</td>
</tr>
<tr>
<td>Improved internal dissemination of customer information</td>
<td>5.0 1.4</td>
<td>4.4 1.6</td>
<td>29</td>
<td>19.74</td>
<td>0.0001</td>
</tr>
<tr>
<td>Increased individually differentiated customer service</td>
<td>5.5 1.4</td>
<td>4.7 1.4</td>
<td>25</td>
<td>19.15</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

5.3 Practice of Customer Orientation

Results presented in Table 4 suggest that these beliefs appear not to be fully translated into practice. Respondents view top management support for customer-oriented strategies in their firms not to be as strong as intentions reflected in their official pronouncements. Their support for investment in ICT solutions has been relatively weak. However, their supports for information dissemination and competence development have been strong. The above evidence suggests that although top management in the Northern Jutland firms believe in customer orientation and would want to support their employees in acquiring the required competence to ensure the provision of customer-oriented services, they do not wholeheartedly support investments in ICT and CRM solutions. The fact that only 19% of all respondents are adopters of CRM further reinforces this conclusion. Hypotheses 1 and 2 are, therefore, not supported.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Adopters</th>
<th>Non-Adopters</th>
<th>Total</th>
<th>t-Value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Std. Dev.</td>
<td>Mean Std. Dev.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top management views on customer-orientated investments in general</td>
<td>4.4 1.4</td>
<td>4.1 1.2</td>
<td>179</td>
<td>40.51</td>
<td>0.0001</td>
</tr>
</tbody>
</table>
5.4 Demographic Characteristics and CRM Adoption Behavior

**Firm Size**

The sizes of the firms (measured in terms of number of employees), is presented in Table 5. It shows that most of the firms can be justifiably classified as SMEs. Nearly 75% have less than 100 employees. More than 80% of the non-adopters (compared with only 45% of the adopters) belong to this category of firms. A chi-square analysis was performed on the data and the results show a statistically significant association between firm size and the propensity to adopt CRM solution. The evidence therefore supports Hypothesis 3, i.e. the larger the size the higher the firms’ propensity to adopt CRM.

**Table 5. Size of Firms**

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>Adopters</th>
<th>Non-Adopters</th>
<th>Total</th>
<th>%</th>
<th>Cuml. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 100</td>
<td>16</td>
<td>118</td>
<td>134</td>
<td>74.9</td>
<td>74.9</td>
</tr>
<tr>
<td>100-200</td>
<td>6</td>
<td>15</td>
<td>21</td>
<td>11.7</td>
<td>86.6</td>
</tr>
<tr>
<td>2001-300</td>
<td>7</td>
<td>4</td>
<td>11</td>
<td>6.1</td>
<td>92.7</td>
</tr>
<tr>
<td>Over 300</td>
<td>6</td>
<td>7</td>
<td>13</td>
<td>7.3</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>144</td>
<td>179</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Chi-square = 25.4607, (X critical = 7.815), df = 3, p< 0.05, phi = 0.377145 Cramer’s V = 0.377145
**Line of Business**

Table 6 provides an overview of the lines of business represented in the sample. Over 40% of the firms are engaged in manufacturing, 20% in commerce, and 15% in construction, while the rest are in service-related businesses, such as finance, banking, and consultancy. Over 80% of the adopters are represented by firms in the manufacturing and service business, while 57% of the non-adopters are represented by this category of firms. A chi-square analysis was performed on the data, and the results show a statistically significant association between line of business and the propensity to adopt CRM solution. The evidence, therefore, supports Hypothesis 4.

<table>
<thead>
<tr>
<th>Line of Business</th>
<th>Adopters</th>
<th>Non-Adopters</th>
<th>Total</th>
<th>%</th>
<th>Cuml. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>18</td>
<td>56</td>
<td>74</td>
<td>41.3</td>
<td>41.3</td>
</tr>
<tr>
<td>Commerce</td>
<td>10</td>
<td>26</td>
<td>36</td>
<td>20.1</td>
<td>61.4</td>
</tr>
<tr>
<td>Construction</td>
<td>-</td>
<td>27</td>
<td>27</td>
<td>15.1</td>
<td>76.5</td>
</tr>
<tr>
<td>Finance/Banking</td>
<td>5</td>
<td>11</td>
<td>16</td>
<td>9</td>
<td>85.5</td>
</tr>
<tr>
<td>Consultancy</td>
<td>1</td>
<td>13</td>
<td>14</td>
<td>7.8</td>
<td>93.3</td>
</tr>
<tr>
<td>Other services</td>
<td>1</td>
<td>11</td>
<td>12</td>
<td>6.7</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>144</td>
<td>179</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Chi-square = 12.9044 (X critical = 11.070), d. f. = 5, p < 0.05
phi = 0.268499 Cramer’s V = 0.268499

**Age of Firms**

Table 7 presents a classification of the two broad categories of firms in terms of their years of establishment. It suggests that most of the firms are of recent origin. Over 50% of them were established after 1950, and nearly 40% were established between 1971 and 1990. This period marked the beginning of the ICT cluster formation in the region and is, therefore, characterized by intensive industrial activity.

Out of the 35 adopters in the sample, 69% of them were established between 1971 and 2000, i.e. barely 35 years ago. Only 49% of the non-adopters were established during this period. A chi-square analysis was performed on the data, and the results show a statistically significant association between year of establishment and the propensity to adopt CRM solution. The evidence, therefore, supports Hypothesis 5 – i.e. younger firms show a higher propensity to adopt CRM.
Table 7. Distribution of Firms by Year of Establishment

<table>
<thead>
<tr>
<th>Year of Establishment</th>
<th>Adopters</th>
<th>Non-adopters</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 1900</td>
<td>-</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>1900-1950</td>
<td>5</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>1951-1970</td>
<td>6</td>
<td>29</td>
<td>35</td>
</tr>
<tr>
<td>1971-1990</td>
<td>14</td>
<td>56</td>
<td>70</td>
</tr>
<tr>
<td>1991-2000</td>
<td>10</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>After 2000</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>144</td>
<td>179</td>
</tr>
</tbody>
</table>

Chi- square = 12.6193 (X critical = 11.070), df = 5, p < 0.05, phi = 0.265516, V = 0.265516

6. Discussion

We can turn once again to technology adoption literature to attempt an explanation of the low level of adoption of CRM among Northern Jutland firms. Building on the epidemic perspective introduced earlier, it can be argued that one possible explanation for the low rate of adoption is that CRM was at its introductory stages in Northern Jutland at the time of data collection. The 35 firms that have adopted CRM are among the early adopters (Rogers 1995). The adoption rate will, therefore, increase as information about the technology increases.

An alternative explanation is provided by the analysis of our interview data. Several of our respondents suggested that managers in Northern Jutland are generally skeptical about the economic returns from investments in CRM technology. This explanation is consistent with views in the management innovation literature that management ideas are readily diffused among practitioners if they meet organizational requirements and individual needs at the time of their emergence (Furusten 1995). The explanation is further reinforced by the recent evidence of less successful firm-level investments in CRM projects. For example, Alonso (2002) studied CRM implementation in 20 large and medium-sized pharmaceutical companies and found only a few of them had enhanced their sales and marketing performance despite investments ranging from $20 million and $90 million.

Further said, marketing scholars have argued that business performance is influenced by a wide range of other factors than market orientation. Factors such as market structure (Pelham 2000), the nature of the operational environment (Kohli and Jaworski 1990), the learning orientation of firms (Baker and Sinkula 1999), competitor intelligence activities and top management attitude to risk (Avlonitis 1999), and organizational innovativeness and a participative work climate (Desphandé and Farley 2000) have been found to moderate the
impact of market orientation (and, by extension, CRM) and firm performance. Results of the present study are consistent with this perspective. As one of our interview respondents put it, “CRM is not a panacea, nor is it simply a software issue.” By this he meant that making customers feel welcomed and valued does not necessarily require the application of computer software solutions. It rather requires the development of a customer-oriented culture and full cooperation within the entire workforce of a company to ensure that every experience a customer has with the company is a positive one.

7. Summary and Directions for Future Research
The results of the present study extend our understanding of how organizational characteristics, such as top management orientation to CRM and organizational readiness, as well as technological characteristics (e.g. the nature of the CRM package), tend to influence CRM adoption behavior among small firms. The evidence shows top management of small firms makes their CRM adoption/rejection decisions on the basis of a trade-off between expected benefits from using the available CRM packages compared with alternative modes of achieving customer-orientation and loyalty. Furthermore, our findings are in line with findings in previous studies regarding the relationship between firm size and new technology adoption behavior.

Our failure to include the operational environment of firms in our analytical framework is a limitation in the present study. Previous studies have shown that factors, such as environmental uncertainty, government influences, pressure from other trading partners as well as other industry-specific competitive pressures, may influence new technology adoption in small firms (Chong, 2001). These factors need to be included in a future research on the topic in Denmark in general and North Jutland in particular.

8. Conclusion
The present study aimed at documenting the current state of CRM adoption by firms in Northern Jutland and investigating factors that influence CRM adoption. It also set to determine whether ICT usage in general is a prerequisite for customer-oriented strategies of small firms. The results suggest that while top managers in Northern Jutland appreciate the strategic value of customer-orientation and would encourage their employees to acquire the requisite competence to serve their customers very well, many of them do not see ICT investment in general or CRM adoption in particular to be the sine qua non of customer orientation. The results are, therefore, consistent with Narver and Slater’s (1990) view that market orientation is an organizational culture. That is, the adoption of customer-oriented behavior in a firm requires changes in the dominant norms and values within the firm. This requires the development of an organization-wide learning system and competence development system that allows for continuous superior value creation for customers. Small firms may be able to do this without the use of sophisticated software packages.
**References**


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