

BUSINESS ALIGNMENT IN THE CRM DOMAIN: PREDICTING CRM PERFORMANCE

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Abstract

In this paper we present a framework that aims to answer the central question why some organizations are successful in the CRM domain, while others are not. The framework is built on two foundations. The first claims that an organization's CRM performance is positively affected by aligning CRM activities according to five business dimensions: strategy, monitoring and control, organization and processes, employees and culture, and IT. Secondly, it is hypothesized that CRM performance is additionally and positively influenced by integrating four CRM areas: CRM strategy, customer insight, customer contact, and marketing.

This twofold hypothesis is tested empirically using data from thirty questionnaires that were completed by an equal number of Dutch marketing, sales and account managers. All respondents had experience with the concept of CRM and represented a large variety of organizations according to size and sector. Several construction methods are applied in order to operationalize the concept of CRM alignment and performance. Bivariate analysis supports the hypothesis. We conclude that the twofold alignment of CRM activities is a critical success factor for organizations embarking on CRM initiatives.

Keywords: CRM, alignment, performance, group discussion meetings.

1 INTRODUCTION

Since the 1990's, organizations increasingly pay attention to Customer Relationship Management (CRM). This is indicated by e.g. Channabasavaiah, et al. (2003) who found that CRM is in the priority top 3 of CIOs for 2004, next to application integration and e-business. As a concept, CRM covers many activities. Call centers are materialized, and customer contacts are monitored and managed. Data mining is used to increase customer insight, trigger cross-selling, and contribute to effective marketing. As the Internet is used as a new sales channel, new types of business intelligence are incorporated in CRM. Freeland (2003) describes the evolution of CRM in detail (pp 4-6). Early CRM initiatives merely took operational services like call centers into account. Later, also sales contacts were included and managed. Pro-actively the customer was approached. Cross- and up-selling emerged. Channel management and customer segmentation are now two of the major topics in the CRM domain. In short, many CRM tools have been developed, and continue to be improved and deployed.

The reported results on the effectiveness of CRM, however, are contradicting. Anecdotal evidence, as well as analyst reports, show that many CRM improvement programs are far from effective (Rigby et al., 2002). Quite illustrative was a media discussion related to research based on customers of Siebel, the worldwide leading producer of CRM systems. In 2003, Nucleus Research reported that only 39% of Siebel's reference customers experienced a positive return on their CRM investment. This is sharply contradicted by Aberdeen ("Does," 2003), reporting that more than 75% of the companies that implemented Siebel perceived that their business is performing better. Successful or not, a common opinion is that CRM initiatives *can* have great benefit for organizations. Consequently, the central question is: why certain companies are more successful in the CRM domain than others?

Freeland asserts that an integrated, holistic approach of the broad CRM domain is needed in order for organizations to benefit from CRM. His argument that initiatives in the CRM domain must be considered holistically has a close connection to the approach of Kaplan and Norton (1996). Formulated generally, their claim is that organizations perform better by setting balanced and measurable goals for several business dimensions at the same time. Known as the 'balanced scorecard', Kaplan and Norton have created a widely used management tool to balance and channel efforts, people's abilities, and knowledge toward achieving sustainable competitiveness for organizations. Starting point of the model is that the organization's strategy can be translated into operational terms. Next, the core of the balanced scorecard is about *aligning* the organization's objectives (derived from the organization's vision and strategy) according to four business dimensions: finance, customer-related, process-related, and learning/growth. In balance and combination, these value drivers are known for superior financial and competitive performance. In this research we take Freeland's suggested holistic CRM approach, and relate this to the alignment of business dimensions of which the four dimensions of the balanced scorecard are examples.

With regard to the empirical part, we focus our research on CRM in the Netherlands. We believe that the Dutch situation is comparable to most of the post-industrial countries as it deals with regular CRM approaches, problems, successes, and failures. As of 2003, over 70% of the Dutch IT decision makers in mid and large sized enterprises have heard of CRM, over 20% have actually invested in it (IT Trends Institute, 2003). Another survey among large sized Dutch enterprises from Giarte Research showed that half of the large sized companies have purchased CRM standard software ("Running," 2003). The Giarte survey additionally described that CRM is either used to lower customer costs or to increase revenues through leveraging low-cost service channels, focusing on customer segmentation, differentiation and effective campaign management respectively. Eventually, just over 50% of the interviewed Dutch organizations that purchased CRM software are satisfied with their investment. Many organizations identify that CRM vendors promise too much, while only half of the CRM implementation partners are qualified 'sufficient'. The Dutch situation can be furthermore illustrated by three large Dutch organizations that have thoroughly deployed CRM: KLM (Royal Dutch Airlines),

TNT Express (a B2B parcel services provider), and ABN Amro (a Dutch bank) (“Customer”, 2003). All three organizations recognize that successful implementation of CRM is heavily dependent on change management, i.e. a two-way alignment between the CRM software, and users, organization and organizational processes. This is easier said than done, so it appeared from these cases. At KLM, one of the greatest efforts made was convincing all employees of the importance of CRM. At TNT Express, it appeared most difficult to persuade IT personnel to solve problems in the CRM software with high priority. Also the marketing intelligence department of ABN Amro was confronted with change management issues, as it could hardly process all request from other departments.

1.1 Hypothesis and research methodology outline

In this paper we address the research question: why are some companies successful in the CRM domain, while others are less or not? This question is dealt with in a deductive manner. Using an alignment perspective on CRM, we put the following hypothesis forward as an ex-ante answer to the research question:

The performance of an organization in the CRM domain is positively affected by (1) aligning business dimensions, and (2) integrally approaching the CRM domain.

In terms of dependent and independent variables, the hypothesis contains two independent factors: (1) the degree of business alignment and (2) the degree to which the CRM domain is approached integrally and holistically as promoted by Freeland (2003). The dependent variable is the performance level in the CRM domain. Empirical testing of the hypothesis will be the central exercise of this paper. In order to do so, we created a framework consisting of a number of alignment dimensions and the CRM domain. This ‘CRM alignment framework’ will be the vehicle to determine the independent factors of the hypothesis. The framework will also be used to assess the dependent variable. Particularly, respondents from thirty organizations were surveyed using the alignment framework. The resulted data were the input to test our hypothesis. If empirical evidence can be found supporting this hypothesis, the secondary result would be that practitioners can have a foundation for being successful in the CRM domain.

1.2 Organization of the paper

In the following section we provide more details on CRM and business alignment, which allows us to subsequently create the CRM alignment framework. Sections about the data collection and methodology follow this. Then the results of statistical analysis are presented and discussed. In the last section conclusions are drawn, further research is identified, and implications for practitioners are provided.

2 THE CRM ALIGNMENT FRAMEWORK

In this section we propose the CRM alignment framework as a combination of a CRM typology and the concept of business alignment. First, both will be described respectively.

2.1 Customer Relationship Management (CRM)

As we described before, early CRM in organizations mainly focused on call centers, customer sales contacts, and marketing. Often these focal points were treated separately. As customer demand increased (both in amount and diversity), and competition grew bigger than before new focal points entered the CRM domain. Customer insight (Campbell, 2003) and customer strategy (Campbell, 2003; Mehta et al., 2002; Low and Blois, 2002; Ingram et al., 2002; Pitt et al., 2002) have become two important CRM areas. Both areas address customer development, customer retention, customer acquisition, and customer differentiation as main objectives. If we incorporate these objectives into the

holistic approach by Freeland (2003), it implies that CRM should be addressed integrally on four main areas: CRM strategy, customer insight, customer contact and marketing. What do these areas contain?

Regarding *CRM strategy*, Freeland (2003) includes customer strategy (which customers does an organization want?), channel strategy (through which sales channels will the customers be contacted?), brand and image strategy (how to ensure that customers create a high image from your organization?), and CRM technology strategy (which tools and capabilities does an organization need?) (p 8). Freeland defines *customer insight* as the ability to understand customer needs and accurately predict customer behavior (p 8). According to Freeland, organizations should improve the quality of *customer contacts* while at the same time drive down the contacting costs (p 8). Therefore *marketing* should be an integral part of CRM, and made more effective and efficient (pp 8,9).

As we believe that the four areas cover CRM to major extent and fit the holistic perspective, we will explicitly use these as the first foundation of our CRM alignment framework.

2.2 Business alignment

In addressing business alignment we first look at a specific form: business/IT-alignment. Since the 1980's, scholars, analysts and consultants alike have advocated an aligned approach with regard to introduction and deployment of information systems (IT) in organizations. One example is Porter (2001), who argues that the Internet does not make business strategy obsolete. Instead, an Internet and business strategy should always go together. On an operational level, other authors emphasize that IT implementations should come along with a careful consideration of business processes and other organizational issues (Peppard and Ward, 1999; Hammer and Champy, 1994). Sowa and Zachman (1992) propose a system development perspective that can be considered holistic, taking the views of data, function, network, organization, strategy, and scheduling into account. All of the mentioned authors similarly encourage the alignment of IT with business processes, structures and strategies.

Historically, Henderson and Venkatraman (1993) can be considered as the founders of the idea behind business IT alignment. They introduced the Strategic Alignment Model, one of the first concepts to support organizations in leveraging new IT technologies. Business strategy, IT strategy, organizational infrastructure and processes, and IT infrastructure and processes should be in balance through strategic fit, and functional integration (see also Luftman et al., 1993). Subsequently, several authors tried to operationalize the Strategic Alignment Model. With varying success, they determined measurements for alignment and organizational performance and tried to find the correlation between the two (Cragg, et al., 2002; Kearns and Lederer, 2000; Peppard and Ward, 1999).

If we consider the field of CRM, especially the business domain need to be extended in order to gain further insights from applying the idea of alignment. Therefore, we involve the model of Turban, et al. (1999) into our theoretical elaboration. This model includes the perspective of corporate culture, employees and their roles, next to the strategic and operational dimensions of the Strategic Alignment Model. Next, this 'extended' model of business IT alignment can be further categorized to enable empirical measurement. This was thoroughly done by Scheper (2002). In his adaptation of the model, five alignment *dimensions* are defined: (1) strategy and policy, (2) monitoring and control, (3) organizational structure and processes, (4) information technology, and (5) employees and organizational culture. Subsequently, Scheper operationalized the concept of alignment by defining maturity levels for each of the five dimensions. In this way, the idea of balance or synchronization between dimensions (mutual alignment) can be quantified.

As empirical testing of our hypothesis is a central goal in this paper, we will use Scheper's five business dimensions as the second foundation of our CRM alignment framework. Also, the business dimensions of the model closely fit the relevant conditions of both the strategic and operational management of CRM.

2.3 The CRM alignment framework

Our CRM alignment framework is based on two foundations. First, CRM as a large field of activities is subdivided in four areas, following the integrative perspective of Freeman. Second, five business dimensions, following Scheper's elaboration of the business IT alignment approach, subdivide the management of CRM activities. Combining both foundations results into an extensive overview of the relevant areas and dimension with regard to CRM in its broadest form. In line with our hypothesis, the alignment framework also includes the actual performance on CRM. As stated before, we explicitly expect that balance and alignment (with regard to the CRM areas and the related business dimensions) will be positively related to the success of organizations in the CRM domain. For sake of operationalization, performance is also divided into part: (1) customer retention, (2) customer satisfaction and (3) leverage of sales channels. These three parts are complementary and jointly define what is known as 'customer value'. Reward and gain of CRM are determined by the number of customers and their buying behavior (customer retention and customer satisfaction). At the same time, costs and expenses should be including in the equation to measure both the effectiveness and efficiency of CRM (leverage of sales channels). Figure 1 provides a schematic sketch of our complete CRM alignment framework.

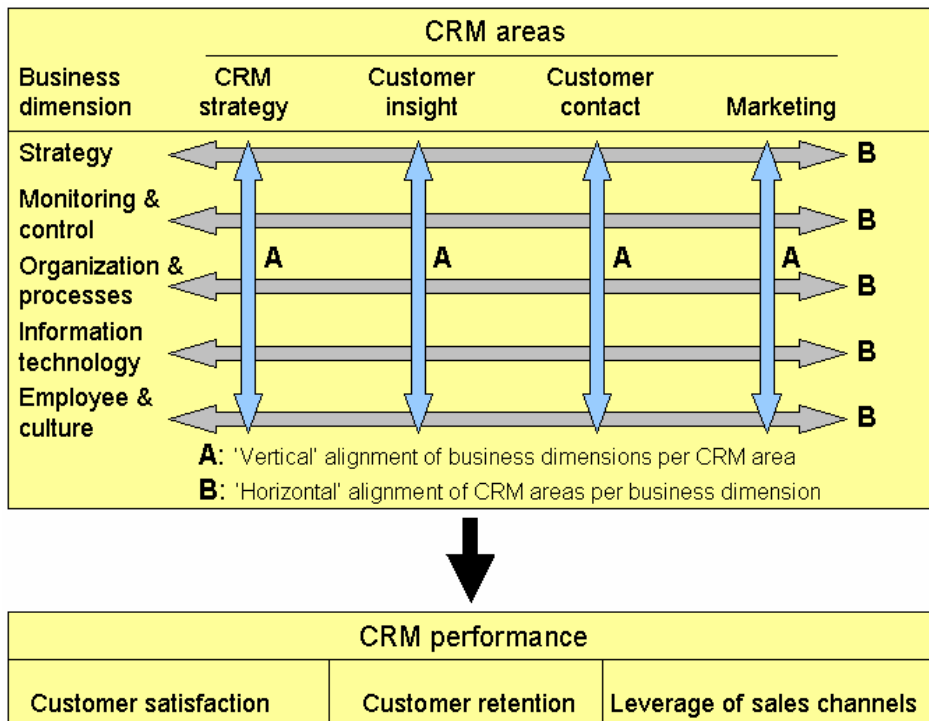


Figure 1. The connected CRM alignment framework

With the aid of this framework the degree of 'vertical alignment' (as indicated within the framework) will be operationalized as the deviation between the five different business dimensions. Similarly, the degree of taking the CRM domain fully and integrally into account can be calculated as the deviations between the four CRM areas. According to our central hypothesis, these two independent variables will be positively correlated with CRM performance, the supplementary sum of three performance indicators.

The next section will particularly describe how alignment, integration and performance within our CRM framework are defined and measured in concrete. But first we touch on related research that both demonstrates the completeness of our framework, as well as its uniqueness.

2.4 Related work

The comprehensiveness of our CRM framework is comparable, but also goes beyond related work of other scholars and analysts. Romano and Fjermestad (2003) for instance, recognize five mutually influencing areas for e-CRM in their research agenda: (1) markets (including CRM strategy, marketing and relationship building), (2) business models (how to set up a viable business supported by processes), (3) knowledge management (including customer insight), (4) IT, and (5) human factors. These five dimensions partly overlap with our combination of CRM areas and business dimensions, but the distinction is in the twofold alignment. Contrary to Romano and Fjermestad, we hypothesize the need for alignment between all likewise dimensions. In addition, we don't restrict the framework to e-CRM, but developed it to cover the complete CRM spectrum.

Another study by Kim, et al. (2003) presents an evaluation model that assesses the effectiveness of CRM. They translated four balanced scorecard dimensions to the CRM domain resulting in (1) customer value (the financial perspective: enhancing customer profit), (2) customer satisfaction (the customer perspective: delivering business value to customers), (3) customer interaction (operational excellence in customer contact and effective marketing), and (4) customer knowledge (customer insight). These perspectives serve as metrics to evaluate the effectiveness of CRM. The four dimensions partly correspond to the CRM performance domain of our framework. In contrast to the study of Kim et al. however, we do not take our framework as a basis for the evaluation of CRM effectiveness, but much more as a tool to identify critical success factors of CRM initiatives beforehand. Another distinction lies in the model assumptions itself. Whereas Kim et al. present a causal structure of CRM goals and actions, we hypothesize at the independent part of our framework that both internal CRM investment and different business domains will need to be aligned.

To conclude, a Gartner study presents eight building block of CRM as a framework for successful implementation of CRM tools (Radcliffe, 2001). It is claimed that applying the building blocks will maximize benefits to the enterprise and its customers. The eight CRM building blocks can also be mapped onto our framework: (1) vision, (2) strategy, (3) valued customer experience, (4) organizational collaboration (including organizational culture and change management), (5) processes, (6) information, (7) technology, and (8) metrics. Similar to our framework, the Gartner study emphasizes a 'balanced approach'. The balancing is limited to customer experience and organizational collaboration (building block 3 and 4), whereas our framework advocates a fully balanced and holistic CRM approach for all business dimensions and CRM areas.

As we will show in the next section, we basically went beyond the above related work by being able to test our framework empirically in thirty cases.

3 DATA COLLECTION

In October 2003 thirty managers from an equal number of Dutch organizations were invited at Utrecht University, to participate in three different group discussion meetings. The managers were recruited using the personal and professional networks of master students Business Informatics at Utrecht University. At first sight, this selection method seemed to be disadvantageous in terms of group representation. However, our main goal is to study relationships and differences between organizations, not to present representative figures about the CRM actions of Dutch organizations. Given this, the method has several advantages. Students did not recruit leaders or laggards with regard to CRM. Instead, they were asked to find managers that are truly responsible and aware about the CRM activities in their organizations. Since all students recruited their respondent independent from each other, the sampling resulted into an unpredictable, rather random group of managers. All

managers made a personal commitment to enter the discussion meeting and to seriously add value to this academic initiative. Table 1 summarizes the participants' organizations, by industry and size.

Type of industry, product or services	Size		
	Small (5-50 ftes)	Medium (50-1,000 fte)	Large (over 1,000 fte)
Telecommunication and web-companies	3		1
IT, software or e-business company	3		3
Construction, manufacturing industry	1	2	2
Tourisms and entertainment	1	2	1
Care and education		1	1
Bank and insurance			3
Consultancy	2		1
Retail and trade	1		2
Total	11	5	14

Table 1. Basic characteristics of the participants' organizations

An electronic boardroom meeting was chosen to question managers about their CRM activities in a both structured and unstructured manner (cf. Weatherhall and Nunamker, 1999). In each meeting an average of ten managers were occupied for two hours by the same agenda.

The first hour of the meeting was dedicated to the standard questionnaire that is derived from the CRM alignment Framework presented in the previous section. The questionnaire contained 40 opinion items. Those items covered the full spectrum of area 1 of the framework (two items per cell) and were extended by six items to measure the organizations' performance in the CRM domain. All items were presented as 5-point Likert scales, varying from 'fully disagree', 'disagree', 'neutral', 'agree' to 'fully agree'. The participants completed the questionnaire¹ by using GroupSystems at the electronic boardroom, a widely used software tool for supporting group discussions and meetings. To initiate a subsequent discussion on the questionnaire the most controversial results were presented and discussed (controversy was indicated by direct inspection of standard deviations). In this way, the group elaborated on the quality and content of these items in particular, and the rationale of the questionnaire in general. From every meeting it appeared that all items were recognizable, understandable and suitable to answer, given the fact that managers represented a large variety of organizations. Most participants experienced the questionnaire as a complete and structured checklist for CRM. This provides us with confidence about the quality of this particular measurement of CRM activities and performance during the sessions.

The second hour of the meeting was dedicated to an open discussion about a number of additional topics on CRM such as the use and misuse of information systems, the management of multi-channeling, the differences between business-to-business and business-to-business markets, specific contingencies for CRM like industry policies and structures. Since this part of the discussion was of a qualitative type and slightly differed from meeting to meeting, these materials will only serve to illustrate the results and findings from the next analysis.

4 MEASUREMENT

In this section we describe the steps we took towards testing our hypothesis by constructing the appropriate variables from the data set. Starting with the dependent part in our model, we explore the

¹ The questionnaire with original items is available on request.

scalability of the six items that address the self-estimated performance in the CRM domain. It should be noted that the items not only refer to three different key performance indicators, but also are formulated as relative performance measures with regard to time ('one year ago') and industry ('our competitors') on the other. From our framework we basically expect all performance items to inter-correlate positively. This is indeed the case. Reliability analysis demonstrates a Chronbach's alpha of .74, indicating that the six variables complete a reliable scale.

The explanatory part of our hypothesis needs a longer road to operationalization. The first concept of vertical alignment, as it is addressed in the previous section, implies that we need to measure the balance between the scores on the five business dimensions. This balance will be measured with regard to each of the four CRM areas separately. There are several reasons for this, one being the fact that the questionnaire was primarily sorted by CRM area and secondly by business dimension (see Appendix I, items are listed in order of appearance to the respondent). As with the dependent variable, we deal with two items per combination of business dimensions and CRM area (see Appendix I). It appeared that the $4 \times 2 = 8$ items per business dimension have strong inter-correlations and show strong scalability (Chronbach alpha's are .82 and over). This implies that the items indeed indicate one dimension (i.e. level of investment) for each of the five business dimensions. This result is in line with the basics of Scheper's model (Scheper, 2002). Consequently (and for the sake of simplicity of further variable construction), the two items per combination of business dimensions and CRM area are taken together by computing its mean.

The next step is to actually turn the vertical alignment concept into a measurable variable. Given the measurement as presented above, four business alignment scores for each CRM area should be calculated, including a total business alignment. The basis of each alignment computation is an array of five scores on five business dimensions. A simple measurement to indicate the balance in this array can be achieved by computing all possible distances. Similarly, the standard deviations can be computed over the same array of five scores. However, two important aspects of the alignment concept are neglected by these computations. First, alignment especially adds value if the mean or total score on the dimensions are substantial. The basic idea implies that a company that is perfectly aligned on a low level (say: an average of 1.2 on all five dimensions) should be rated lower in terms of CRM alignment than a company that is perfectly aligned on a high level (say: an average of 2.1 on all five dimensions). Secondly, the computation of differences and (standard) deviation does not translate the idea of symmetry between the five dimensions, since it aggregates on this.

We try to construct an adequate formula to capture the specific alignment concept. The formula consists of two elements. The first and main element is calculated by the 'volume' of the fictitious object that is stretched by the five business dimensions. For common practice, this volume can be expressed by the product of the five scores and the alignment dimensions $a1..a5$ ($S[a1..a5]$). This simultaneously includes the deviations *and* the means of the five score array in each CRM area. Secondly, this element is multiplied by the ratio of the minimum ($MIN[a1..a5]$) and the maximum score ($MAX[a1..a5]$) within that same array. As a consequence, the bare minimum of an organization has a direct effect on the level of business alignment itself, whereas its denominator puts an extra effect since it explicitly captures the largest possible distance with the array of five scores. To summarize, this formula includes the most important features of the alignment concept i.e. balance, difference and heights of the five scores. The notation is of the business alignment function (A) for every CRM area (c) is simply:

$$A_c = S[a1..a5] * (MIN[a1..a5] / MAX[a1..a5]) \quad (1)$$

The last step in operationalizing our independent variables of our hypothesis concerns the aggregation of the alignment scores over the four CRM areas. This is the 'horizontal integration' we referred to in the CRM alignment framework section. In terms of measurement, we use the same method, applying the same formula (1) over the array of the four alignment scores subsequent the four CRM areas. Consequently, we calculate:

$$A[c1..c4] = S[A_c1..A_c4] * (MIN[A_c1..A_c4] / MAX[A_c1..A_c4]) \quad (2)$$

So $A[c1..c4]$ can be considered as the second measurement of an organization's CRM alignment, i.e. the operationalization of an integrally approach the CRM domain.

5 RESULTS

To begin with, we describe the basic characteristics of our dependent and independent variables and their components as explained in the previous section. This description also allows us to check the distribution shape of these variables, an important assumption for further statistical analysis. Table 2 shows the results.

	N	Min	Max	Mean	Standard Deviation
<i>Dependent variable</i>					
Sum of all 6 performance variables	30	1.83	4.67	3.32	0.61
<i>Independent variables</i>					
Vertical alignment on the CRM strategy area	30	4.50	1116.28	370.99	303.45
Vertical alignment on the customer insight area	30	2.00	1845.28	397.01	432.86
Vertical alignment on the customer contact area	30	10.00	1800.00	492.86	457.27
Vertical alignment on the marketing area	30	4.00	1296.00	518.31	382.90
Vertical and horizontal alignment taken together	30	2.64E+03	4.63E+11	4.97E+10	1.14E+11

Table 2. Description: basic statistics of the dependent and independent variables

Table 2 shows that respondents, on average, judged their CRM performance somewhat better in comparison with one year ago and in comparison with their main competitors (mean is 3.32 on a five-point scale). So in general it appears that the respondents were quite confident about their own CRM performance.

The statistics with regard to the independent variables are difficult to interpret by their absolute level, but some indication can be taken from the means and standard deviations. In contrast with the dependent variables the standard deviations are rather large, some are even larger than the mean scores. This might be a consequence of the multiplication of scales, but it also indicates that the constructed factors include extreme scores. Therefore, skewness of distributions is corrected by taking the logarithm of each of the independent variables.

The next table 3 demonstrates the final test of our hypothesis. We performed standard Pearson correlation analysis and tested on one-tailed significance since this is sufficient to test the basic claim that alignment in CRM investments pays off in terms of CRM performance.

	Sum of all 6 performance variables	
	Correlation	P-value
Vertical alignment on the CRM strategy area	0.35	0.03
Vertical alignment on the customer insight area	0.35	0.03
Vertical alignment on the customer contact area	0.47	0.00
Vertical alignment on the marketing area	0.49	0.00
Vertical and horizontal alignment taken together	0.48	0.00

Table 3. Hypothesis test: correlations between the dependent and independent variables

Our hypothesis is supported by all correlations. All coefficients are positive, and significant on a 5% level (p-values are based one-sided hypothesis testing). A main result is that the correlation between the measurement of vertical/horizontal alignment and total performance is convincing (+0.48). This is a key confirmation for our general formulated expectation. With regard to the other coefficients it can be seen that the 'vertical' alignments within the four separate CRM areas do not show large differences in their correlation with both performance measurements. Only alignment within the 'customer contact' and 'marketing' area seems to correlate somewhat higher.

To seek for robustness, we conducted a number of extended analyses to check the stability of results. First of all, varying the nature of the association analysis (rank order assumption and non-linear modelling) did not change the results. Secondly, controlling for employee size and turnover did not change the correlation coefficients either. The same holds for sub-analysis by industry or type of customers (individuals or companies). All in all, this additionally supports our main result: alignment and performance in the CRM domain indeed coincide.

6 CONCLUSIONS AND IMPLICATIONS

We presented the CRM alignment framework that contributes to the research question *why some organizations are successful in the CRM domain, while others are not*. Associated with the CRM alignment framework came the following hypothesis.

The performance of an organization in the CRM domain is positively affected by 1) aligning business dimensions, and 2) integrally approaching the CRM domain.

Using the CRM alignment framework we built a questionnaire to help us validate the hypothesis. The outcome of the questionnaire provides us with information regarding: 1) to what extent is an organization aligned and integrated in the CRM domain, and 2) what is the performance level of the organization. The questionnaire has been used empirically to validate the hypothesis, interviewing thirty organizations.

The results support the hypothesis. All question items regarding performance and alignment of the organizations are taken into account. Referring to our research question we conclude that the alignment and height of the identified business dimensions, and an integral approach of the CRM domain are critical success factors for organizations embarking on CRM initiatives.

As a consequence, we believe that the CRM alignment framework has important business value as well. We find evidence that a company's performance in the CRM domain is increasing by its degree of alignment and integration as defined by the CRM alignment framework. Also, the CRM alignment framework founded a questionnaire that appears to be a very useful instrument in determining progress, levels, integration and alignment. In short, the questionnaire is a useful checklist to systematically find improvement areas for an organization's performance in the CRM domain.

In principle, practitioners can use the CRM alignment framework and its questionnaire to manage CRM tool implementations. This would yield the promise as provided by the CRM vendors: identifying the 'weak' business dimensions and/or CRM domains in order to take the appropriate actions and risk management with regard to these dimensions. The earlier cited survey by Giarte Research confirmed that the consulting part of CRM implementation is the most critical as in most organizations it takes more than four years to attain demonstrable return on investment ("Running", 2003). To illustrate this, in the earlier mentioned Dutch KLM case ("Customer", 2003) it was believed that with the introduction of CRM software all employees should become more customer focused. Within the CRM alignment framework this implies a concentration on the dimensions 'Employee and Culture'. In addition, practitioners can also use the framework to investigate why a certain CRM tool introduction was (not) successful in terms of improved performance in the CRM domain. Finally, the

CRM alignment framework can be used to monitor a running CRM project in an organization by measuring the alignment as defined in the CRM alignment framework and measuring the degree to which the full CRM domain is addressed.

As stated before, this research goes beyond related work in the field. Compared to the study of Romano and Fjermestad (2003), and the research by Gartner (Radcliffe, 2001), we identified the need for *twofold* balance: balance in the business dimensions, and balance in different CRM areas. We also believe that our research is an addition to the work of Kim, et al. (2003), which focuses on an evaluation of existing CRM in an organization. In this article we indicated the critical success factors beforehand (before improving CRM performance), and furthermore we applied and tested our approach to many more organizations. We think though that a combination of the work of Kim, et al. and our approach is well possible in practice. The framework of Kim, et al. could be used to identify the current effectiveness of CRM in an organization; subsequently an assessment of the level of twofold alignment using our framework could be used to identify areas of improvement.

There are a number of areas for further research. First of all more cases should be applied to further investigate the support of the hypothesis. Companies outside the Netherlands could also participate. Next, though already useful, the questionnaire can be improved: the items should better inter-correlate, both within the dependent part of the CRM alignment framework, as well as within the independent part. Moreover, the dependent part of the CRM alignment framework is based on customer retention, and channel efficiency. It would be interesting also to include key performance indicators based on customer acquisition, customer development, and customer differentiation.

Finally, we believe that an alignment framework can be applied to other areas than CRM, for example in the procurement domain, in the logistics and finance domain, and in supply chain management, providing the same type of benefits as the CRM alignment framework currently contains.

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