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Cristiane Drebes Pedron Winnie Ng Picoto Gurpreet Dhillon Mário Caldeira

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Cristiane Drebes Pedron
Graduate School of Management, Nove de Julho University, São Paulo, Brazil
Winnie Ng Picoto
ISEG – Lisbon School of Economics and Management, University of Lisbon, Lisbon, Portugal
Gurpreet Dhillon
School of Business, Virginia Commonwealth University, Richmond, Virginia, USA, and
Mário Caldeira
ISEG – Lisbon School of Economics and Management, University of Lisbon, Lisbon, Portugal

Abstract

Purpose – The purpose of this paper is to define objectives for Customer Relationship Management (CRM) system adoption. The objectives provide a theoretical basis for strategizing about CRM system adoption. The objectives also provide managers to clearly direct CRM system adoption, thus ensuring a highly successful outcome.

Design/methodology/approach – The authors conducted a sequential multi-method research in Europe. The initial qualitative phase constituted 62 in-depth interviews. Using Keeney's (1992) value-focused thinking approach, the authors defined 102 CRM system adoption objectives. Quantitative purification techniques, using a sample of 210 organisations, a more parsimonious set of objectives were developed. The complete set of objectives were classified into fundamental and means objectives.

Findings – Results present three fundamental and three means objectives. These objectives allow for successful CRM system adoption. The three fundamental objectives are: maximise CRM organisational culture; ensure an effective relationship with CRM providers; and minimise CRM project risks. The three means objectives are: maximise CRM usage, maximise relational marketing capabilities, maximise CRM orientation.

Practical implications – This study provides strategic objectives that can be used by companies to plan adoption of a CRM system. Hence the fundamental and means objectives take the form a strategic planning template.

Originality/value – Although technology adoption has been well researched and has also been extended to address CRM systems, the focus has largely been behavioural. The strategic objectives for CRM system adoption, presented in this paper, are novel. Objectives enable decision making and resource planning. The combination of fundamental and means objectives provide a theoretical basis for ensuring successful CRM system adoption.

Keywords CRM, Adoption, Enterprise systems, Customer relationship management, Multi-method research, Objectives

Paper type Research paper

Introduction

There is a problem regarding Customer Relationship Management (CRM) system adoption within organisations. Payne (2006) found that about 60 per cent of CRM

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system adoption ends in failure, and that 69 per cent of projects fall below the company's expectations. More recently, Kim *et al.* (2012) pointed out that of those organisations that invested in projects of CRM system adoption, about 70 per cent, came to the conclusion that there was no visible improvement, or experienced a decline in their business performance. In the literature, the most frequently cited reasons for the lack of benefits realisation from CRM system adoption are: first, a limited strategic planning focus with respect to CRM systems (Coltman *et al.*, 2011), second, a lack of clarity or organisational objectives for CRM adoption (Finnegan and Currie, 2010).

In addressing the reasons for the lack of benefits realisation from CRM systems, two concepts need to be defined: What are CRM systems? What is the strategic planning focus for CRM systems? Payne and Frow (2005, p. 168) define CRM as "a strategic approach concerned with creating improved shareholder value through the development of appropriate relationships with key customers and customer segments". CRM is not only a technological tool, but also a way of improving the bottom-line of a company by having a more effective and efficient relationship with customers. A strategic planning focus for CRM systems hence allows for enhancing shareholder value of an organisation by systematically identifying objectives and by measuring the results of the CRM system over a period of time. A precursor to any strategic planning process is a clear definition of objectives. In our review of the literature, such objectives have not been very well defined. Hence we argue that failure of CRM system adoption in companies is a consequence of a lack of a strategic planning focus, which can be resolved by identifying and defining CRM system adoption objectives.

Theoretical background

CRM adoption

Companies adopt CRM systems in order to achieve different objectives. These include: enhancing relationship with customers (Coltman *et al.*, 2011); increasing the smooth flow of business processes (Payne 2006); better understanding of customer requirements (Coltman *et al.*, 2011); increasing customer loyalty (Hillebrand *et al.*, 2011); enhancing revenues (Chen and Chen, 2004); reducing marketing costs (Chen and Chen, 2004), and; generally increasing value for clients (Kim *et al.*, 2012).

In the literature, there are several studies about CRM adoption, which are mainly exploratory in nature. Although some research on CRM values does exist in the literature (e.g. Payne and Frow, 2005) our review of the literature however did not find any study that clearly defined value-based objectives for CRM system adoption. This gap in the literature provides motivation for us to systematically define such objectives, which will help with the success of CRM systems and hence provide a strategic frame of reference for CRM systems. CRM system adoption is expected to help companies gather information, analyse data and deliver efficient customer support.

Whilst some authors are of the opinion that internal resistance to change in a company is jeopardising this process, others think that a narrow perspective of CRM (characterised by looking at it as if it is only a technology) is the main cause of failure (Finnegan and Currie, 2010). As Information Tecnology (IT) is a part of CRM, the system is often mistaken as only being a technology tool (Finnegan and Currie, 2010). If an organisation sees CRM only from a technological perspective, then the CRM system will have a very narrow scope within the company, and it might face a higher chance of failure. For this reason, the way organisations define CRM affects the outcome of projects, as it influences both the adoption and implementation processes (Payne and Frow, 2005). It is important to understand that a CRM system is much more than a piece

of software, as, from a strategic point-of-view, it involves front-office, back-office, several (if not all) departments, business processes, and also people (Payne and Frow, 2005).

Throughout CRM system adoption, companies should review not only their business focus, but also their organisational culture and their business processes, and they should move from a product-centred view, to a customer-centred view (Payne, 2006). Organisations also need to have their customer information systems up-to-date in order to satisfy their customers and to use the firm's resources efficiently (Josiassen *et al.*, 2014). Additionally, if a company adopts a CRM system with the main objective of following a "trend", it is likely to result in failure, as it will probably overlook the steps of the process that need to be accomplished before even attempting to implement the system (Hillebrand *et al.*, 2011).

Value-focused thinking and CRM

Values have been considered as principles that people adhere to and use to evaluate situations accordingly, and hence they form a good basis for developing objectives. As Locke and Latham (1990) note, objectives are necessary, as they are the goals or an end of an action. Therefore, in the context of CRM systems, and in order to ensure that such systems meet the needs and wants of the organisation, there should be a clear definition of system objectives. Value-based objectives have been proven to be superior to those based on mere alternatives, or through the classic top down approaches. León (1999) undertook tests to prove that the structure of objectives generated by considering individual values was superior to that which was based on alternatives. Whilst it is not our intent to engage in an alternative-focused vs a value-focused debate in this paper, it is nevertheless important to note that objectives based on Kenney's value-focused thinking are superior.

"Values are what we care about. As such, values should be the driving force for our decision making" (Keeney, 1992, p. 3). Based on this concept of "value", value-focused thinking is a theoretical approach, in which this process is divided into two activities: the first is deciding what is wanted, and the second is how to obtain it. This theory argues that it is only possible for decision makers to make good decisions if their values are expressed by objectives. Thus, it is extremely necessary to build up a set of objectives that will support a decision process. In order to develop a clear and organised set of objectives for a CRM system adoption, it is necessary to separate the concept into two sets: the fundamental objectives and the means objectives. The former, "characterises an essential reason for interest in the decision situation" (Keeney, 1992, p. 34) and expresses what is crucial to be realised. The means objective "is of interest in the decision context because of its implications for the degree to which another (more fundamental) objective can be achieved" (Keeney, 1992, pp. 34-35) and in that sense, it is implicated in that other objective.

In the CRM context, the definition of value-based objectives is critical in order to minimise failure rates of CRM system adoption. As in other Information Systems' contexts, in the planning of CRM system adoption, identifying the CRM objectives can enhance the understanding of the values of decision makers (May *et al.*, 2013). Without a clear definition of those value-based objectives, CRM system adoption is unlikely to be achieved.

Keeney (1994) suggests that fundamental objectives and means objectives should be distinguished via the "Why is That Important? – WITI test." After an objective is recognised, the decision maker should ask "why is that important?". Following that question, two scenarios may arise: the objective is a fundamental one, as it is one of the main causes for interest in the situation; or the objective is a means one, because its importance is related to, or implicated to, another objective. As will be illustrated in the subsequent sections, identification of values and their classification into fundamental

and means objectives allows organisations to systematically engage in a strategic approach to CRM system adoption.

The main goal of this research is to enhance the understanding about those values that may influence the adoption of CRM systems, thus helping managers to use these set of objectives in CRM systems adoption planning. In order to accomplish this, we conducted a sequential multi-method research (Venkatesh *et al.*, 2013), in which a qualitative study feeds a sequential quantitative study (Mingers, 2001).

The qualitative study

The main purpose of the qualitative study was to understand what various stakeholders in organisations aspired to from a CRM system (their needs, wants, values and wishes). We followed the same methodology as that proposed by Keeney (1992, 1994), and adopted it using the Information Systems and Decision Science fields of knowledge (Dhillon and Torkzadeh, 2006; May *et al.*, 2013). In total, 62 interviews with CRM executives from European companies were conducted. These informants were: senior managers (11.3 per cent), Information System (IS) managers (14.6 per cent), CRM managers (16.1 per cent), key users (29 per cent), software vendors (12.9 per cent) and CRM consultants (16.1 per cent). The interviewers group are principally male (88.7 per cent). 45.2 per cent come from telecommunication sector, 14.5 per cent from energy sector, 11.3 per cent from service sector and 29 per cent directly involved with CRM providers (software vendors or CRM consultants). Each interview lasted about between 45 and 120 minutes. For the qualitative part of this study, our ultimate goal was to propose a structure for orchestrating organisational objectives for CRM initiatives. In order to accomplish this goal, we structured this qualitative study into three parts:

(1) Identifying values about CRM systems adoption: data collected from the interviews was coded and analysed using a software package for qualitative data analysis – NVivo.

(2) Organising values to develop objectives about CRM system initiatives: The second step of this process was to identify the objectives related to each value. Values were linked to objectives, using more traditional techniques, such as data tables (as suggested by Miles and Huberman, 1994). The time spent transcribing the data also enabled researchers to develop a deeper knowledge about the statements provided by each interviewee, making it easier to identify, analyse and compare statements.

(3) Structuring CRM system organisational objectives: we integrated similar objectives derived from the interviewees' CRM system values, in order to identify clusters of basic objectives (detailed or low-level objectives), which then led to further identification of fundamental and means objectives. Table I presents examples of the output from these three phases. In the first column, the quotes from the interviewees are recorded, which equates to the values in their original format. In the second column, the basic objectives are presented, and in the last column, we present the objective that derives from a group of basic objectives.

(4) We observed which organisational objective were reported by the interviewees as being important for CRM adoption, and then formulated a network of objectives according to their interdependency. In order to develop this network, we used the WITI test proposed by Keeney (1994), which tries to discover why an objective is important in the decision context.

Values in its original format (interviewees' transcripts) I wish/I would like that …	Basic objectives	Fundamental and means objectives (clusters of basic objectives)
… we had a technology-enabled customer relationship orientation	Ensure a technology-enabled customer relationship orientation	Develop an organisation-wide CRM culture
… we had a marketing-oriented technical competence for customer relationships	Ensure a marketing-oriented technical competence for customer relationships	
… our customer viewed us in terms of integrated business processes	Ensure a unified view of the company	
… we did not have silos in the organisation		
… we had customer-facing business processes		
… all our divisions and companies operated synergistically	Ensure sister companies have a shared CRM vision	
… our groups of companies shared their CRM vision with each other		
… our CRM activities were integrated across our sister concerns.		

Table I.
CRM system values and objectives

The qualitative research results revealed 102 objectives, and of these, 77 are means objectives, and 25 are fundamental objectives. Based on Keeney's approach, the qualitative phase of this research provides a comprehensive list of means and fundamentals objectives for adopting CRM systems.

The quantitative study

In this quantitative phase, two instruments were developed, based on the findings from the qualitative part of the research: one regarding the means objectives, and the other regarding the fundamental ones. A three steps research approach was undertaken in order to purify the constructs and to assure unidimensionality and reliability. We followed Churchill's (1979) recommendations to achieve these objectives. After that, a Confirmatory Factor Analysis (CFA) was performed in order to further validate the psychometric quality of the proposed scales.

Data collection

In order to achieve a more parsimonious set of the objectives for CRM system adoption, a three steps approach was adopted. In Step 1, a pre-test was conducted with three specialists who had both an academic and a consultancy background and also a high level of knowledge about CRM system adoption. The objective of this step was to assure the face validity of the items and their correct wording. This step resulted on the elimination of 30 items, either because they did not make sense, or because they were repeated. The 71 remaining ones were then translated from English to Portuguese (this translation was validated by applying the back-translation technique). Of these 71 items, 49 corresponded to means objectives (grouped in 14 initial constructs), and 22 to fundamental objectives (grouped in 5 initial constructs).

In Step 2, a pilot test was conducted, using a sample of Masters students (with a background in CRM systems) from a Portuguese university. A total of 97 usable responses were collected via an online survey – www.surveymonkey.com (95 per cent had work experience, the age average was 28 years old, and the average of self-reported knowledge regarding the questionnaire was 3.94 out of 5).

After a brief explanation of the research objectives, participants were asked "In your opinion, in order to maximise the success of CRM adoption, it is important to:" For each item on the list, the respondents had to rate them on a Likert scale (1 strongly disagree to 5 strongly agree). We then conducted data analysis as describe in the next section. As a result of this step, 50 items were proposed to be eliminated. However, given the theoretical importance of some of these items, together with the fact that the characteristics of the pilot subjects were not the same as the final sample, it was decided that some items from the previous list should remain for Step 3.

Finally, in Step 3, the means objective instrument and the fundamentals objectives instrument were further explored and tested. The final survey (with the 55 items) was sent to 1,000 European organisations (drawn from the Dunn and Bradstreet database of companies that operate in Europe). Two e-mails (one addressed to the Information System Director, and the other to the Marketing Director) were sent to each organisation, inviting these professionals to participate in the survey. In order to increase the response rate, two follow-ups were made by e-mail. Additionally, a third follow-up was done by telephoning each organisation to ask them personally to participate in the survey. A total of 210 valid responses were gathered on the third step of this research phase. Table II presents the demographic data of this sample.

Data analysis

In Step 2 of the quantitative research phase, data were analysed with the objective of eliminating any residual items that were not important, and therefore showed no relevance to the adoption of a CRM system. To purify the scale, and as a means of guaranteeing its unidimensionality and reliability, we followed Churchill's (1979) recommendations. Three statistical methods were combined in a sequential manner: first, the Cronbach's α for each construct was computed and items that would result in an increase of the computed Cronbanch's α were then eliminated; second the corrected item-total correlation was calculated and items with values bellow 0.3 were deleted, and, finally; an Exploratory Factor Analysis (EFA) was conducted, and all items that

Sex	66% male
	34% female
Department	42% information systems
	43% marketing and sales
	15% other
Industry	75% services (mainly banking, consulting and retail)
	25% industry (mainly car industry and pharmaceutical)
Education	95% are at least graduated
Age	35 years (mean)
Degree of knowledge about the questionnaire	3.98 (mean) out of 5 (5 means very knowledgeable)
Experience with CRM	40% have experience on the usage
	22% have experience on implementation

Note: $n = 210$

Table II. Demographics of the final sample

presented scorings greater than 0.35 in more than one factor were eliminated. Then, an EFA was conducted with the remaining means objectives, together with another one with the fundamentals objectives. This aimed to eliminate items that are not factorially pure. In Step 3, EFA was conducted with the final sample. Finally, the final instruments were further validated with CFA.

Means objectives

In Step 2 of the data analysis, we followed the three tasks previously described to purify the scale. As a result of the reliability analysis, four items were deleted, but in the case of the corrected item total-correlation, not one item was deleted. After performing the factor analysis, 33 further items were eliminated. Thus, from a total of 49 items for the means objectives, 12 remained and remained part of the survey that was launched in Step 3 of this study, together with some of the eliminated items, which gave rise to the reasons previously explained. In order to test the factor structure that resulted from Step 2, another EFA was conducted using the 210 valid responses that had been gathered for Step 3. It is also important to state that, although we decided to maintain some of the eliminated items of Step 2, the outcome of Step 3 confirms the factor structure found in Step 2.

Table AI presents the factor analyses results (Step 3), using principal component as the means of extraction, and Varimax for rotation for the means instrument. The Bartlett's test of sphericity is 637,179 ($p < 0.001$), which means that the data are well-suited for factor analysis. Kaiser-Meyer-Olkin (KMO) is 0.85(> 0.80) (Sharma, 1996), which means that the sample shares enough common variance to conduct a factor analysis. The minimum sample size required for factor analysis is 10:1(ten observations for one item). Thus, our sample size of 210 for 12 items is above the minimum required.

The factor analysis resulted in a 3-factor matrix, with eigen values greater than 1. Each factor was easily interpreted as maximise relational marketing capabilities (four items), maximise CRM orientation (five items) and maximise CRM usage (three items). The factors presented explain 54.91 per cent of the variance that exists in the data. All the items listed within a construct are arranged in descending order (from highest loading to lowest loading), and all factors have loadings greater than 0.5. Additionally, the Cronbach's α is greater than 0.6 for all constructs, which means that the instrument has good reliability. The total-item corrected correlation is above 0.3 for all items, which shows that items are correlated within each construct.

Fundamental objectives

After the purification procedures taken on Step 2 of the quantitative phase of this study, we reached a list of ten fundamental objectives. We applied the same item purification procedure as that which had been applied to the means objectives instrument. The reliability analysis eliminated three items, the corrected item total-correlation two items, and the factor analysis proposed the elimination of a further nine items. From a total of 22 items that belonged to the original fundamental objectives instrument, just ten items remained.

In Step 3, for the 210 usable responses, EFA was run again for the fundamental items that resulted from Step 2. Table AII presents the results of Step 3 for the fundamentals objectives. Factor analysis was performed (with 22 items resulted from step 2) with the principal components as means of factor extraction, and with Varimax for rotation. Bartlett's test of sphericity was 341,456 ($p < 0.001$), and KMO was 0.8.

Once again, our sample is adequate for factor analysis. The ratio of sample size to number of items is 21:1, which is well above the minimum sample size required for factor analysis. All the factors correspond to the same ones that resulted from Step 2. The resulting factors were easily interpreted as maximise CRM organisational culture (4 items), Ensure an effective relationship with CRM providers (four items), and minimise CRM project risk (two items).

The factor analysis resulted in a three-factor matrix with eigen values greater than 1. The obtained factors are able to explain 55.5 per cent of the variance existing in the data. As before, all the items listed are arranged in descending order, and all factors have loadings greater than 0.3. All constructs have Cronbach's α higher than 0.5, which shows adequate and good reliability. Additionally, corrected total-item correlation is above 0.3 for all items, which means that the items are correlated within each construct. Overall, the means objectives instrument and also the fundamentals objective instrument present good psychometric proprieties.

The final set of fundamental and mean objectives

After performing the EFA, a CFA as implemented in SmartPLS 3.0 (Ringle *et al.*, 2014), was used to further validate the proposed scales. To assess internal consistency, Cronbachs' α and composite reliability were analysed for each factor, or latent variable (Table III). Although the threshold value for both criteria is 0.7, DeVilles (1991) considers that Cronbachs' Alfa between 0.6 and 0.7 is acceptable, especially in new scales. Therefore, only F2 presents a Cronbach α lower than 0.6, but a composite reliability value of greater than 0.7. In fact, Cronbachs' α has been "criticised as being a lower bound and hence underestimating true reliability" (Peterson and Kim, 2013, p. 194), and composite reliability is seen as a better measure for constructs reliability.

According to DeVellis (1991), new scales should also be validated regarding their discriminant validity and convergent validity. Discriminant validity was assessed through the Fornell-Larcker (Table IV) and cross-loadings criteria. Both criteria were satisfied for the means objectives factors (M1-M3) and fundamental objectives (F1-F3), and therefore the new scales proposed here represent distinct latent variables and they have good discriminant validity. This goes towards the theoretical development and the qualitative data analysis, supporting the creation of means and fundamentals objectives variables.

Convergent validity of scales can be assessed by the Average Variance Extracted (AVE), which should be greater than 0.5, which means that the constructs represent one dimension, and the same underlying construct, and also that the latent variable is able to explain more than a half of the variance of its indicators (Henseler *et al.*, 2009). In the initial test, F2 and M2 did not present AVE values greater than threshold of 0.5 (0.423 and 0.422, respectively). After deleting F2.3 and F2.4 from F2 and M2.1 and M2.5 from M2, both variables reached acceptable values of AVE, which means that the scales proposed in this paper presents good convergent validity. Following Gefen and Straub (2005) and Gefen *et al.* (2011) suggestions, Table III presents the factor loadings and *t*-values. All factors have loadings equal or higher then 0.624 (above the threshold value of 0.5) and are statistically significant at 0.01 level. Tables III and IV present the quality criteria values for the final scale. The final instrument for means and fundamental objectives are presented in the following list:

(1) Maximise relational marketing capabilities (M1):
   - ensure the capability to analyse customers data (M1.1);
   - ensure the correct segmentation of customers (M1.2);

	AVE	Cronbachs α	Composite reliability	Factor loading	Sample mean	SD	*t*-value
Maximise CRM organisational culture (F1)	0.547	0.726	0.828				
Develop a wide CRM organisational culture (F1.1)				0.705	0.706	0.029	24.476
Ensure a possibility of constant revaluation of CRM system (F1.2)				0.838	0.837	0.019	43.550
Ensure communication between company employees in CRM activities (F1.3)				0.676	0.673	0.036	18.976
Ensure the alignment of CRM systems with business projects (F1.4)				0.721	0.719	0.028	25.711
Ensure an effective relationship with CRM providers (F2)	0.661	0.550	0.794				
Maximise the transfer of knowledge between CRM consultants and the company (F2.1)				0.719	0.723	0.045	16.041
Ensure that the CRM consultant is an expertise (F2.2)				0.895	0.889	0.025	35.853
Minimise CRM project risks (F3)	0.747	0.662	0.855				
Define CRM project (F3.1)				0.850	0.851	0.026	32.340
CRM project risks (F3.2)				0.878	0.877	0.024	37.209
Maximise relational marketing capabilities (M1)	0.616	0.789	0.864				
Ensure the capability to analyse customers data (M1.1)				0.846	0.845	0.011	77.004
Ensure the correct segmentation of customers (M1.2)				0.850	0.850	0.014	62.169
Ensure that there is data to refine marketing campaigns (M1.3)				0.792	0.793	0.017	45.882
Define organisational capacities to retain customers (M1.4)				0.628	0.628	0.033	18.870
Maximise CRM orientation (M2)	0.518	0.653	0.762				
Ensure that the CRM system has the desired characteristics (M2.2)				0.624	0.623	0.027	22.820
Ensure the differentiation of operational functions and CRM strategy (M2.3)				0.765	0.765	0.026	29.632
Ensure the evolvement of business and IT in the strategic planning of CRM (M2.4)				0.760	0.762	0.026	29.425
Maximise CRM usage (M3)	0.566	0.617	0.796				
Ensure that employees have sufficient maturity to take advantage of the CRM system functionality (M3.1)				0.751	0.753	0.024	31.361
Ensure CRM system supports user decision making (M3.2)				0.746	0.745	0.023	32.559
Ensure that the adopted technology allows an orientation for the customer relationship (M3.4)				0.760	0.757	0.027	27.972

Table III.
Final instruments quality criteria

	F1	F2	F3	M1	M2	M3
F1	*0.740*					
F2	0.299	*0.813*				
F3	0.253	0.107	*0.863*			
M1	0.588	0.335	0.262	*0.785*		
M2	0.490	0.321	0.339	0.473	*0.720*	
M3	0.665	0.277	0.263	0.445	0.461	*0.752*

Note: The diagonal presents the square root of AVE and the off-diagonal present the latent variables correlations

Table IV. Fornell-larcker

- ensure that there is data to refine marketing campaigns (M1.3); and
- define organisational capacities to retain customers (M1.4).

(2) Maximise CRM orientation (M2):

- ensure the differentiation of operational functions and CRM strategy (M2.3);
- ensure the evolvement of business and IT in the strategic planning of CRM (M2.4); and
- ensure that the system does not require a lot of learning time (M2.5).

(3) Maximise CRM usage (M3):

- ensure that employees have sufficient maturity to take advantage of the CRM system functionality (M3.1);
- ensure CRM system supports user decision making (M3.2); and
- ensure that the adopted technology allows an orientation for the customer relationship (M3.3).

(4) Maximise CRM organisational culture (F1):

- develop a wide CRM organisational culture (F1.1);
- ensure a possibility of constant revaluation of CRM system (F1.2);
- ensure communication between company employees in CRM activities (F1.3); and
- ensure the alignment of CRM systems with business projects (F1.4).

(5) Ensure an effective relationship with CRM providers (F2):

- maximise the transfer of knowledge between CRM consultants and the company (F2.1); and
- ensure that the CRM consultant is an expertise (F2.2).

(6) Minimise CRM project risks (F3):

- define CRM project (F3.1); and
- CRM project risks (F3.2).

Discussion

Maximise organisational CRM culture

Before adopting CRM systems, organisations must set their objectives for its adoption and they need to change their corporate strategy (e.g. vision, objectives and mission) to focus more on the customer. In our research, many of the interviewees noted that when they tried to adopt a CRM system, they realised that their culture was not prepared for this kind of organisational approach. The Chief Executive Officer (CEO) of two large telecommunication companies told us that, after several cases of CRM failure, they and their Board of Directors are now much more involved in CRM projects. One of them said:

> We must also be involved in daily operational activities to ensure CRM success in order to demonstrate to the team that CRM is important to us.

This is the same opinion of one CRM manager, who said that top management support was crucial during the first years of CRM in the company:

> Some important changes had to be introduced, and without this support the implementation would not have been possible.

When attempting to shift their focus more towards the customer, companies often face cultural issues (Coltman *et al.*, 2011). However, in order to create a customer-oriented corporate culture, it is important that the organisation is able to develop learning and to encourage capabilities (Lin *et al.*, 2010). According to one marketing manager who was interviewed, CRM is a long and possibly never-ending journey. He agreed that his company has a lot of potential to improve CRM and business processes. Another important aspect related to CRM is the dynamic nature of a customer data model. Nowadays, companies must observe that customers change their data over time, and that new types of customer data may become important. The CIO of one Telecommunication company told us that their new CRM project is having success in using a prototype methodology to implement CRM in several stages, which implicated systems requirements in a dynamic way. This demonstrates the importance for IT to work together with CRM strategy. According to the director of one huge company:

> During these changes, we need managers with enough energy to change the company situation, who are able to motivate people and who are prepared to implement the new strategy (execution capability). They must also be strong enough to make difficult decisions.

To deliver a good customer service, the entire organisation (and their business partners) needs to cooperate, so as to communicate and share customer data and experiences (Dibb and Meadows, 2004). In this way, CRM requires the sharing of information among departments, as a means of creating a picture of the organisation's total relationship with its customers (Ryals and Knox, 2001). One of the IT managers of a telecommunication company referred to a senior manager's initiative to facilitate internal communication. Through this initiative, they hope to be able to unify cultural niches by creating a unique organisational culture. Internal communication is a barrier which affects CRM adoption. A CRM operations manager said that his company is far from experiencing a good relationship among departments and colleagues. He notes:

> […] it is important to change the company structure, create mechanisms, and to adopt IT, in order to improve customer knowledge management.

Ensure an effective relationship with CRM providers

In the literature, establishing a relationship with providers is well articulated (Chalmeta, 2006; Payne, 2006). It highlights the importance of the planning of each phase of CRM adoption, and also the need to count on prior expertise. The marketing manager of a courier company claimed that there is a need to contract a group of consultants to work together with the project team to adopt CRM software. She criticised the fact that teams of consultants normally ask internal staff for information and then return to the company a few weeks later, bringing with them impressive Power Point slides that conveys little about the progress of the project.

According to one IT manager who was interviewed, a problem posed by the adoption of the CRM software project was the number of templates that a company had to customise. The interviewee claimed that the first idea was to buy the software, customise it and then implement it. He stated that the necessary workflows were not inserted in the software (mainly those of front-office and back-office automation), and that his company invested a considerable amount of time and money in customising the CRM software to the reality of the company. According to him:

> "The bigger the customisation, the bigger the pain of evolution". According to him, this problem "could be avoided if software providers had explained it before".

Still on the subject of the relationship with CRM consultants, interviewees from a mobile telephone company talked about three interesting scenarios. The first regards the models that consultancy companies use. The second discusses patterning prescriptive models, as, from a manager's point-of-view, with all these changes, consultancy companies do not concentrate on building a solution for the project in conjunction with the company's staff, but instead they use their own prescriptive models. The third issue is related to another mobile telephone company's organisational learning. This company opted to delegate the responsibility for the implementation of the project to an IT consultancy. However, they observe that the management of the IT project is the responsibility of the company, and that therefore only their own staff possess relevant knowledge about it.

Minimise CRM risks

In order to minimise risks, the CRM project of a small mobile telephone company was supported by a business case, where units of measure were implemented to record the tangible benefits of the CRM software. These measurements included: customer waiting time on the phone, the number of calls received per hour, and the number of customer calls resolved during the first interaction, amongst others. As the software had been implemented in the call centre, which was operated by an outsourcer, it was relatively easy to verify the financial costs and the benefits.

A Chief Information Officer (CIO) of an energy company considers that one way to minimise risks during a CRM project, is to implement the CRM system in a gradual way, as it is thus easier to control, is more responsive to employees' expectations, and organisational changes are more easier to manage. This CIO claimed that his company first adopted CRM software, before trying to improve its organisational processes. According to him, the team learnt that they should first study the best practices that were part of the software package. During the first CRM implementation, the company customised 60 per cent of all the CRM software templates, however, during the last phase of implementation, this percentage was reduced to just 15 per cent.

Maximise relational marketing capabilities

According to Payne (2006), CRM involves identifying sources of value for customers, and creating a value proposition (products and services) which meets customers' requirements, expectations and preferences. According to a Customer Care Manager of a telecoms company:

> […] it is necessary to know exactly who the customer is, which implies knowing their names, needs, behaviour characteristics, and the type of products and services that they normally use, in order to be able to differentiate between them. If the company has such customer information, it can then offer a tailored product and service.

This objective is in line with Wang and Feng's (2012) research, who found that customer orientation is associated with the capabilities of CRM, which in turn has a positive effect on the organisation's performance. We chose some evidences to illustrate this objective.

A good practice adopted by a small telecommunications company related to the very simple organisational processes that involve customers. According to a Customer Service Manager who was interviewed, "CRM is mission-critical". The organisational concepts and processes are designed to allow customer participation. The company realised that the customer must be independent, and that their freedom is more important than the quality of the company's customer database. Each customer has access to their own data from the company's customer database, via the website.

One example of an initiative related to customer care at an energy company was a fidelity programme. This is aimed at promoting customer retention, which in turn improves the company's value. This company sought long-term customer loyalty, in order to get to know them better, and as a means of maximising their value, and it uses up-selling and cross-selling strategies to do this. The company used a loyalty loop, which involves three phases: get to know the customer (obtain data and cluster customers into segments); reward the customer (offer relevant value, stir emotions, exceed customers' expectations), and; build a relationship (communicate with the customer and provide services and products according to customers' needs and expectations).

Maximise CRM orientation

"To maximise CRM orientation" is an objective which relates to both information system issues and strategic issues. Chalmeta (2006, p. 1020) claims that, "to achieve real implementation of the CRM strategy, it is important to have the right technology for automating and improving the business process associated with managing the company's relations with its customers".

One problem explained by the IT manager of a telecom company, is that a CRM project is managed by IT people. This contributes to explaining the failure of previous CRM projects. This interviewee believes that the reason why the Board chooses IT specialists to manage new CRM projects is that IT staff have a pragmatic view, whilst marketing staff tend to be more theoretical. Interviewees at other companies argue the opposite - that CRM should not be managed by IT people, but that they should just be restricted to indicating which is the best IT solution currently available on the market. A CRM project manager with a hybrid profile of both technical and business knowledge is considered by many interviewees to be a critical factor for the success of a CRM project. According to the marketing manager of a courier company – "it is a mistake to choose the cook to manage the party at the same time". From her perspective, IT staff are focused on technology and processes, whilst marketing staff

are more concerned with what kind of customer information is relevant, and about how this information can be used to improve the organisation's competitiveness.

The IS manager of a mobile phone company highlighted both the involvement of employees and the commitment of the Director of Customer Services Management as being two important factors for CRM system adoption. This manager was responsible for rescheduling the project, for reducing the project's requirements, and for taking other crucial decisions related with problems that occurred during the execution of the project. Dibb and Meadows (2004) argue that during a CRM project adoption, staff from different departments need to work together. However these people may have different perspectives, objectives or professional jargons that do not facilitate information sharing and collaboration. As a result, their joint efforts will probably result in a CRM strategy which is well formulated and which is clearly understood by the entire organisation (Finnegan and Currie, 2010).

Maximise CRM usage

By the time a company has already completed the initial CRM project, it is important to Maximise CRM usage. This means that it is important to ensure that employees have sufficient maturity to take advantage of the CRM functionalities, in order to establish a partnership with customers. It is important that employees are trained in CRM. An IT professional interviewed in a telecom company said:

> […] one challenge for people who attend to a customer in a front-office is transforming a negative customer contact into a positive one.

According to him, while there is a need for knowledge of the information system and the company's selling processes, there is a greater need for talented personnel who are capable of developing customer relationships.

A front line employee can use customer behaviour patterns and respond to them on the basis of up-to-date information regarding the relationship. A CRM analytic manager claims that an employee who is interacting with a customer is able to observe the situation (e.g., whether a customer has the time or the motivation to buy, etc.), and can thus manage the relationship with the customer accordingly. According to several interviewees, employees' sensibility is the key factor for CRM system adoption. A marketing manager of the same telecommunication company highlights the importance of the personal characteristics of people with front-office positions, such as politeness, good manners and motivation. According to him:

> […] without these personal characteristics the sales offer may be excellent, but the customer may not be receptive.

The synergy between front-office and back-office skills leads to a more efficient and flexible way of managing the workload of the operators of customer relationship centres.

Employees who interact with customers are in a good position to understand customers' needs and expectations (Josiassen *et al.*, 2014). The CRM analytic manager of a telecommunication company argues that staff who interact with customers must learn what the customer feels, in a simple and pragmatic way. Some customers' feelings are difficult to identify by analysing customer data through analytical processes. CRM analytics can offer patterns and list customers' needs, but staff who work in front-office positions are in a better position to know exactly what customers' needs and wishes are. A customer care manager reported that, in his opinion, people in front-office positions usually work in stressful environments, which does not help them understand customers' expectations.

Implications for theory and practice

The need for a strategic orientation for CRM system adoption cannot be underestimated. As noted in this paper, there has been a problem with the adoption of CRM systems in the past. In the literature we noted that the problem stems from a lack of a strategic focus. Hence it is important that objectives be established. Such objectives would provide a basis for concentrating CRM system adoption and implementation in the strategic plan.

Theoretically, this paper makes a very useful contribution by presenting a strategic framework for CRM system adoption. This framework is constituted of fundamental and means objectives, which merge to provide direction and thus ensures a smooth assimilation of CRM systems in organisations. Our research found that the success of CRM system adoption can be achieved if an organisation strategically focuses on:

- Maximising CRM organisational culture: past literature has suggested that organisational culture plays an important role in system adoption (Wang and Feng, 2012). In the case of CRM systems, it is more important for organisations to be fully aware of their culture, or else any CRM implementation will merely be treated as a technological implementation and the core purpose for implementing the system will be lost.
- Ensuring an effective relationship with CRM providers: unfortunately many CRM system implementations have been considered to be operational. This has resulted in a lack of a strategic focus in their acquisition and deployment. Hence many a times off-the-shelf CRM systems are deployed, usually without any proper needs assessment (Finnegan and Currie, 2010), or the configuration of the business processes (Wang and Feng, 2012). Many of the problems could be eliminated if an organisation were to build a good relationship with the vendors who are well-positioned to advise their company on how to properly implement CRM systems and strategically integrate them into the organisation. Our objectives of CRM system adoption are a good template to begin strategizing about CRM system use.
- Minimising CRM project risks: whilst the need to manage risks for new system implementation cannot be underestimated, CRM system risks and their management are equally important.
- Maximise relational marketing capabilities: by its very nature, a CRM system provides relationship marketing opportunities (Dibb and Meadows, 2004). In order to exploit this capability, it is important that adequate business processes and skills are incorporated into the organisation.
- Maximise CRM orientation: many companies do not have the necessary orientation towards CRM (Josiassen *et al.*, 2014). This objective calls upon the organisation to define such an orientation.
- Maximise CRM usage: by making a CRM system central to the business processes, its usage can be maximised. Hence, some radical changes are often required to companies' strategies with respect to the definition of business processes.

The main questions that arise are: how can resources be allocated to all the fundamental objectives? And, what are the relevant priorities for ensuring that the objectives are achieved? This leads us to the practical contribution of this research – as it helps to unveil the "black box" of how to be successful in CRM system adoption.

Based on the results of this study, and on the means-ends objectives network (Keeney, 1992), it is possible to design a value model for a better understanding of the complexity of CRM system adoption. As previously suggested by May *et al.* (2013), a system for prioritising objectives can be determined by vector v:

$$v(X_1, X_2, \ldots, X_i) = \sum_{i=1}^{n} k_i v_i(X_i) \quad (1)$$

For an objective "O" its proposed measures are be calculated by $O = (X_1, X_2, \ldots, X_n)$, where X_i $(i = 1, 2, \ldots, n)$ describes all measures of the given objective O, k_i is the weight that reflects the priority of a given objective, and v_i is the relative priority. As each organisation has its own interpretation of the proposed set of objectives, each organisation may define the weights and priorities for each objective of CRM adoption and thus developing its own value model. For example, let O be "Maximise relational marketing capabilities", and X_1 "Ensure capability to analyse customer data", X_2 "Ensure the correct segmentation of customers", X_3 "Ensure there is data to refine marketing campaigns", and X_4 "Define organisational capacities to retain customers". Vector v provides a measure of the unique resources that are needed to maximise relational marketing capabilities. Each objective could be prioritised and the common value can then be calculated by applying the equation (1). This illustrates a practical application of the results found in this study. The value model proposed above can be adapted to each organisation, according to their particular organisational strategies and objectives.

Conclusions

The implementation of CRM systems is not an easy task, and system failure is unfortunately frequent (Kim *et al.*, 2012). The identification of objectives for CRM systems adoption is crucial. Without a clear identification of objectives, including their types and dependencies, it is difficult to manage a CRM project, or to classify project results as being successful.

As a result of our research, we propose a set of strategic CRM system adoption objectives – three fundamental objectives, with a total of eight sub-objectives and three means objectives with ten sub-objectives. The objectives were developed with adequate reliability and validity. The CRM system adoption objectives can be an optimum basis for a CRM systems project success. It will also help IT outsourcers understand customers' perspectives and expectations better, in the case where the implementation of CRM systems is outsourced. These objectives can also be used to guide and improve the communication between IT customers and suppliers.

The CRM system adoption objectives proposed in this paper offer both practitioners and academics a basis for further reflection with respect to CRM success. We believe that these objectives will be useful for practitioners, as they are based on values that are held by managers and major stakeholders alike.

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Appendix

	Factor			Corrected item-total correlation	Cronbach's α
	1	2	3		
Maximise relational marketing capabilities (M1)					0.79
Ensure the capability to analyse customers data (M1.1)	0.83			0.67	
Ensure the correct segmentation of customers (M1.2)	0.81			0.68	
Ensure that there is data to refine marketing campaigns (M1.3)	0.72			0.60	
Define organisational capacities to retain customers (M1.4)	0.61			0.47	
Maximise CRM orientation (M2)					0.65
Ensure the complete documentation of the CRM system (M2.1)		0.74		0.50	
Ensure that the CRM system has the desired characteristics (M2.2)		0.63		0.44	
Ensure the differentiation of operational functions and CRM strategy (M2.3)		0.61		0.44	
Ensure the evolvement of business and IT in the strategic planning of CRM (M2.4)		0.57		0.32	
Ensure that the system does not require a lot of learning time (M2.5)		0.53		0.33	
Maximise CRM usage (M3)					0.62
Ensure that employees have sufficient maturity to take advantage of the CRM system functionality (M3.1)			0.80	0.44	
Ensure CRM system supports user decision making (M3.2)			0.72	0.46	
Ensure that the adopted technology allows an orientation for the customer relationship (M3.3)			0.52	0.39	
Eigen value	4.22	1.35	1.02		
% Variance	35.13	11.26	8.52		

Note: $n = 210$

Table AI.
Factor analysis of means objectives

	Factor 1	2	3	Corrected item-total correlation	Cronbach's α
Maximise CRM organisational culture (F1)					0.73
Develop a wide CRM organisational culture (F1.1)	0.78			0.51	
Ensure a possibility of constant revaluation of CRM system (F1.2)	0.78			0.56	
Ensure communication between company employees in CRM activities (F1.3)	0.73			0.58	
Ensure the alignment of CRM systems with business projects (F1.4)	0.60			0.46	
Ensure an effective relationship with CRM providers (F2)					0.53
Maximise the transfer of knowledge between CRM consultants and the company (F2.1)		0.71		0.36	
Ensure that the CRM consultant is an expertise (F2.2)		0.72		0.35	
Ensure that a contract is made between the company and the CRM system supplier (F2.3)		0.53		0.30	
Ensure that the project risks are shared between the company and its CRM consultants (providers) (F2.4)		0.58		0.30	
Minimise CRM project risks (F3)					0.66
Define CRM project (F3.1)			0.83	0.50	
CRM project risks (F3.2)			0.85	0.50	
Eigen value	2.18	1.75	1.62		
% Variance	21.8	17.5	16.1		

Note: $n = 210$

Table AII.
Factor analysis of fundamental objectives

About the authors

Cristiane Drebes Pedron is a Professor of Information Systems and Innovation at the Nove de Julho University, in São Paulo, Brazil. Cristiane holds a PhD Degree from Instituto Superior de Economia e Gestão (ISEG) at the University of Lisbon, in Portugal. She is a Member of the Advance Research Center. Her main areas of interest are customer relationship management, information system and innovation, and knowledge management. Professor Cristiane Drebes Pedron is the corresponding author and can be contacted at: cdpedron@gmail.com

Winnie Ng Picoto is an Assistant Professor at the Instituto Superior de Economia e Gestão (ISEG). She received BA in Industrial Engineering and Management from the Instituto Superior Técnico, and the PhD Degree in Management at the Technical University of Lisbon. She is a Member of the Advance Research Center. Her previous work experience includes IS consulting.

Gurpreet Dhillon is a Professor of Information Systems in the School of Business, Virginia Commonwealth University, Richmond, USA and a Guest Professor at ISEG, University of Lisbon, Portugal. He holds a PhD from the London School of Economics and Political Science, UK. His research interests include management of information security, ethical and legal implications of information technology. His research has been published in several journals including *Information Systems Research*, *Journal of Management Information Systems*, *Information and Management*, *Communications of the ACM*, *Computers and Security*, *European Journal of Information Systems*, *Information Systems Journal*, and *International Journal of Information Management* among others. Gurpreet has also authored seven books including *Principles of Information Systems Security*: *Text and Cases* (John Wiley, 2007).

Mário Caldeira is a Professor of Information Systems and the Dean of ISEG, the School of Management and Economics of the University of Lisbon, Portugal. Mario holds a PhD Degree from the Cranfield University (UK). His main areas of interest are strategic planning for information systems, enterprise systems, information systems in SMEs, and information systems evaluation. He has published papers in several academic journals and conferences, including the *European Journal of Information Systems*, *Information Systems Journal*, *International Journal of Information Management*, *Information Management and Computer Security*, and *Business Process Management Journal*.