Critical Success Factors for Mobile CRM: A Research Framework

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ABSTRACT
The past few years have seen a rapid development and momentous growth in mobile technologies and their diffusion into societies worldwide. The concept of Mobile Customer Relationship Management (mCRM) has emerged, as a one-to-one marketing strategy focused on services built for individual customers in an increasingly mobile world. However, the experience of many organizations, which deployed a Customer Relationship Management (CRM) strategy in the late 1980s and early 1990s, has left them sceptical. To address this, we propose that a Critical Success Factor (CSF) study of mCRM is both relevant and timely. In this paper, we establish the need for such a study and present a research framework.

LITERATURE REVIEW
A review of related domains and the proposed CSF method is required as a precursor to the design of a research framework appropriate to the proposed study. In this section, we present an evolutionary review of developments from CRM to mCRM, highlighting links and differences. We also present some highlights from the existing CSF studies that have been influential in CRM deployments. Following this, we present a brief review of the method outlined by Rockart (1979) for undertaking critical success factor studies, to illustrate its application in the context of our proposed study.

Customer Relationship Management
Customer relationship management emerged in the late 1980s (Chen and Popovich 2003), as a business strategy, which enables organizations to realise the value of customer retention and to develop in a consumer driven global marketplace. It is a cross-functional, customer driven, technology integrated business process management strategy that maximises relationships, spanning an entire business. Underpinning this strategy is the concept of relationship marketing (Sheth and Patvatiyar 1995) and customer lifetime value, leading to return on investment. For example, studies by Reichheld (1995) demonstrate that even 5 percent increases in retention can deliver impacts as high as 95 percent on the net present value of customers.

CRM systems link front and back office functions via technology applications, with a business customer’s touch points including Internet, email, sales, direct mail, telemarketing, call centres, advertising, pagers, stores, kiosks etc (Chen and Popovich 2003). During the second half of the 1990s, the deployment of CRM as part of an integrated eBusiness push was seen as a potential source of operational cost savings. For example, a call centre was able to service clients when there is non-availability of sales staff after hours, at significantly lower costs. Post the dot.com bust, however, businesses began to realise that automating processes, in particular by facilitating business-to-client (B2C) communication, is not sufficient to retain existing or to attract new customers. Some existing CRM implementations were observed to fail to yield expected benefits (Kotorov 2003). The fear of losing long term sustained market share to competition was compounded with a need for economic rationalisation of technology related investments, including CRM.

In the CRM context, critical success factors (CSFs) are those key factors that must be achieved for the success of CRM (Williams and Ramaprada 1996). CSF studies have been used as a method to help organizations realise the full potential of CRM deployments in the boom period and to rationalise investments in the post dot.com bust period.

Amongst the major CSF studies of CRM reported in the literature are those of Williams and Ramaprada (1996) conducted prior to the economic downturn and Gordon (2002) and Croteau and Li (2003), post the dot.com bust. These researchers have applied the concept of critical success factors, as described by Rockart (1979), to conceptualise, classify or categorise CSFs for CRM. They have, however, used various methods to elicit the CSFs, including combinations of literature/industry reviews, surveys, statistical analysis and extending technology adoption frameworks. In summary, the CSFs highlighted in the above studies are as presented in Table 1, in descending order of significance.

During the boom period, Williams and Ramaprada (1996) identified that management commitment is crucial to CRM success, as it reduces resistance to the change that was required when CRM was implemented. Post the dot.com...
CRM to mCRM

As pointed out in the introduction, we are now at a point in time when customers are demanding personalised services, when and where they need them (Nelson et al. 2003). The diffusion of mobile technologies into everyday life has been the major facilitator of this apparent shift -- which has the potential to change perspectives in relationship marketing (Sheth and Pavatyar 1995). In the meantime, organizations which are apparently becoming cautious of technology related investments (Bullen 2003) are searching for new ways of optimising their resources and have realised that deploying mCRM within their organizations might enable sales and service personnel to become more efficient:

“Mobile CRM has emerged as one of the more critical factors for success in today’s competitive environment. In fact, the use of mobility, whether for the enterprise’s field force or for servicing customers, will change the traditional approach of engaging customer relationship.” (Tong 2004)

Peppers and Rogers (1999) view CRM as a one-to-one marketing process, which emerged from the deployment of sales force automation tools, augmented by advances in enterprise software technologies. Christopher et al. (1991) note that CRM has its roots in relationship marketing, with its emphasis on winning new customers, via the management of cost effective relationships, fostered by field personnel, namely the sales/service force. Conversely, the focus of mCRM is on field force personnel.

PeopleSoft (2002), which presented a comprehensive business case for mobile CRM, highlights the role of the sales force. They are of the opinion that an information gap exists in the traditional CRM life cycle. While sales people manage their notes, information, task lists etc in an organizer, mobile phone or handheld device, field technicians develop their own systems for managing schedules, for taking notes or tracking inventory. The result is that valuable information remains in an ad-hoc form, of which only part gets entered into enterprise-wide CRM systems at the end of the day or week. This information gap then translates into an inability of sales/service staff to address queries quickly. In the event of an employee leaving or being off-shored on a contract, the gap widens. Mobile CRM can address this gap by linking employees instantly into the enterprise-wide framework. Information is instantly transferred from field personnel’s devices on to the organization’s database.

The key to mCRM applications lies in connecting employees and their employers, in particular in developing and enhancing business-to-employee (B2E) sales applications, which was set to grow from USD 70 million in 2000 to USD 1.3 billion in 2005. While both CRM and mCRM are customer relationship focussed strategies, mCRM is apparently more useful in connecting front line personnel to the organization.

The pervasiveness of mobile devices such as phones and PDAs, and the increasing bandwidth available to these devices, via third generation mobile phone networks might also be critical to the success of mCRM. This may, however, be offset by apprehensions regarding 3G network diffusion and the legal patent disputes that the BlackBerry maker faced in 2005, in addition to media speculations and the volatility of the environment, rendering organizations sceptical about mCRM. As Beal (2005) pointed out, for years commentators predicted mCRM was ready to take off, only to be disappointed. To address this scepticism, and encouraged by the usefulness of CSF studies in CRM, we propose a comprehensive and structured study for eliciting CSFs for mCRM.

Toward CSFs for mCRM: A Proposed Study Using Rockart’s Approach

We acknowledge that the CSFs for CRM that were derived from previous studies (see Table 1) may be relevant to mCRM, in particular given their common roots in relationship marketing. However, given its apparent focus on the sales force and its dependence on technologies and the environment, we anticipated that additional CSFs may emerge for mCRM. Conversely, the CSF studies for CRM seem to have followed varied methods that may not be appropriate to establishing CSFs for mCRM. For example, none of the previous studies of CRM specifically take into account the need to investigate the environment, political and economic sources that may well be crucial to understanding the mCRM context. To study mCRM, therefore, we propose to revisit the three-step method, as prescribed by Rockart (1979), which explicitly takes all these influences into consideration.

Rockart (1979) offered a method to provide information to top management, based on Critical Success Factors (CSFs) or the ‘few key areas where things must go right’. Specifically, CSFs were the limited number of areas in which satisfactory results will ensure successful competitive performance for the individual, department or organization. The basis of this method was a study conducted for eliciting the information needs of managers in three supermarkets situated in different geographical locations. The study revealed that depending on the manager’s situation, organizational or industry context, the CSFs could differ.

The approach is particularly relevant to mCRM, as it provides guidance to managers in understanding where to focus their attention and assists in prioritizing investment decisions. Bullen and Rockart (1981) suggested there are five sources for an organization to consider when identifying CSFs: the industry, the organization’s strategy and industry position, the environment, temporal factors and the managerial position.

The industry related sources are probed to identify a set of CSFs that are determined by the characteristics of the industry itself. For example, Rockart’s initial study on the supermarket industry found that managers in each supermarket should be concerned about product mix, inventory, sales promotion and price. Conversely, each organization within any industry has its own unique characteristics, determined by its own history and current competitive strategy. Environmental factors are those that an organization has limited control over, including national politics, fluctuations in the economy, population trends and regulatory trends, which can contribute to CSFs. Temporal factors are those areas of activity within an organization that are critical for a short period of time. A crisis that results from the loss of a large number of executives in an air crash is perhaps a good example.

| CSF1 | Management Support |
| CSF2 | Knowledge Management Capabilities |
| CSF3 | Perceived Operational and Strategic Benefits |
| CSF4 | Actual Return on Investment (ROI) |
| CSF5 | Organisational Readiness |
| CSF 6 | Technical Awareness |

Table 1. CSFs for CRM

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Managerial position refers to those generic CSFs associated with the functions of management.

Bullen and Rockart (1981) then presented a useful classification of CSFs according to three dimensions: (a) the above five sources; (b) internal vs external; and (c) monitoring vs building. These are shown in a model adapted to present our conceptual framework (Figure 1). The internal vs external dimension refers to the fact that every manager will have internal and external factors that affect their team. Internal factors may relate to matters within managerial control while external factors may pertain to situations such as the availability of raw material that affects production, which falls outside managerial control. The monitoring dimension refers to CSFs that involve continued scrutiny of existing situations. Often these relate to actual performance versus budget, personnel turnover rates, or current status of product costs. The building dimension refers to those CSFs that involve the role of managers who spend time involved in change management or the implementation of new programs.

Thus, Rockart’s model for conceptualising the CSFs takes into account various sources, augmented by multidimensional perspectives for CSF classification. Given the characteristics of mCRM discussed earlier, we argue that Rockart’s framework may well prove appropriate to conceptualising and classifying possible CSFs for mCRM.

The three-step method as outlined by Rockart consists of an introductory workshop, interviews within the organization/s and a focus workshop. This paper is restricted to the presentation of the conceptual framework, which will be a preliminary step prior to the implementation of this method.

THE RESEARCH FRAMEWORK

In the proposed investigation of CSFs for mCRM, we revisit Bullen and Rockart’s (1981) classification of CSFs according to three dimensions: (a) the five sources (industry, organisational strategy, environment, temporal, and managerial position); (b) internal vs external; and (c) monitoring vs building (see Figure 1). As such there are 20 cells in this classification scheme (5 by 2 by 2).

As a starting point, the six CSFs extracted from the appraisal of the extant literature on CSFs for CRM (see Table 1) were placed into the CSF classification model. Each of the cells relates to potential CSFs as could be extrapolated from existing CRM related CSFs as well as from the literature. Visibly, there are some overlapping dimensions. For example, mCRM may be viewed as essential to the organisation and thus become a CSF. However, the source of this CSF could be industry or the organisation. Specifically, if the industry at large regards mCRM as becoming essential to the organization, it becomes an externally motivated CSF, which needs to be monitored. Conversely if the organisation also feels that mCRM is essential for the success of the organization, it becomes a CSF that is internally motivated and that which an organization will build on. Offshoring is a CSF, which seems to have the potential to encompass all the dimensions. Managerial support is of internal orientation, but can be of monitoring/building dimension.

While Figure 1 is representative of these overlaps as well 12 of the identified mCRM related CSFs. Table 2 supports the figure, mapping the sources against identified CSFs and their dimensions making it clearer that the sources can be varied for each CSF. At this time, we have only highlighted some of the potential CSFs identified to show the existing gaps that could not be addressed via CRM CSFs. For example, it is clear that all CRM CSFs were internally oriented, while there are a number of potential external oriented CSFs for mCRM identified. As the study progresses, more CSFs may emerge and some of the potential ones may merge together to form one CSF. The model as such with its 20 cells may or may not be completely filled with the mCRM CSFs.

Nevertheless, the usefulness of the Rockart model is evident due to its wider coverage of sources and dimensions that could well be relevant to mCRM, given its dependence on the environment, industry and technological factors. Thus, we establish that the model provides a complete structural framework for the proposed study.

CONCLUSIONS AND OUTLOOK

In this paper we have argued that with the development and diffusion of mobile technologies, customers are demanding personalised services when and where they need it. To address this, mCRM has emerged as a one-to-one marketing strategy and is often considered as an extension of CRM. However, organisations are reluctant to deploy a new strategy, given that CRM is yet to realise its complete value.
Table 2. Sources Vs identified CSFs/dimensions

<table>
<thead>
<tr>
<th>Sources/Industry/Position</th>
<th>Identified Potential CSFs/Dimensions</th>
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<tbody>
<tr>
<td>Industry</td>
<td>Nature of the Industry (External/monitoring)</td>
</tr>
<tr>
<td></td>
<td>mCRM viewed as essential to the organization (Internal/monitoring)</td>
</tr>
<tr>
<td></td>
<td>Position of the organization relative to the wider industry (Internal/Monitoring or External/Monitoring)</td>
</tr>
<tr>
<td></td>
<td>Onshore/Offshore (Physical/digital)</td>
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</tbody>
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| Organization Competition/Strategy and Industry Mission | Strategic relevance of organizational strategy (Internal/monitoring and building) |
|                                                      | Position of the organization relative to the wider industry (Internal/Monitoring or External/Monitoring) |
|                                                      | mCRM viewed as essential to the organization (Internal/monitoring) |
|                                                      | Organisational readiness and awareness of new technology (Internal/Monitoring or Building) |
|                                                      | Knowledge management capabilities (Internal/monitoring and building) |
|                                                      | Influence of mergers/partnerships (External/Building) |
|                                                      | Internal and external KPI (Internal/Monitoring and building) |
|                                                      | Sales force attention (Internal/monitoring or building) |
|                                                      | Differentiation (Internal/monitoring and building) |

| Primediment               | Volatility of the mobile technologies (External/monitoring) |
|                          | Regulatory changes within the telecom and mobile environments (Internal/Monitoring) |
|                          | Economic/Political factors (External/monitoring) |
|                          | Adjacency/Market (meaning: whether network is external/monitoring or Internal/Monitoring) |
|                          | Legal disputes in mobile environment (External/monitoring) |
|                          | Indicative statistics (External/monitoring) |

| Temporal                  | Sales force attention (Internal/monitoring) |
|                          | Differentiation (Internal/monitoring and building) |

| Managerial Position       | Criticality of managerial support (Internal/Building or Monitoring) |
|                          | Managerial support directed or participative with sales force (Internal/Building or Monitoring) |
|                          | Criticality of 3G applications (External/Monitoring/Building or Internal/Building) |
|                          | Criticality of change in perspective to promote participation (Internal/Monitoring/Building or Internal/Building) |

To address the scepticism of organisations and encouraged by the usefulness of CSF studies for CRM, we proposed a CSF study for eliciting potential mCRM CSFs, using the Rockart (1979) three-step process, adapting his conceptual model for the proposed research framework. We revisited Bullen and Rockart’s (1981) classification of CSFs, presented as a model, classified according to three dimensions: (a) the five sources (industry, organisational strategy, environment, temporal, and managerial position) (b) internal vs external; and (c) monitoring vs building, for building a conceptual research framework as a precursor to this study, which is presented in the paper.

As a starting point, the six CSFs extracted from an appraisal of the extant literature on CSFs for CRM, were situated in the classification scheme, to make the gaps apparent. Further the potential CSFs identified from a comprehensive literature review were placed into the framework – emphasising the need to validate mCRM related CSFs. Based on this conceptual framework, we propose to undertake a study for eliciting mCRM CSFs initially in the healthcare sector.

REFERENCES

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