The Henley Centre for Customer Management

Understanding the Devil: Uncovering the Detail of How Effective CRM is Implemented

Dr M K Clark, Dr B D Smith, Professor M H B McDonald

26th January, 2004

This report was produced during 2003 when the Research Forum was directed by Dr Moira Clark in association with the Cranfield School of Management.

Table of Contents

Table of Figures

1. Executive Summary

This report describes the work and findings of the Cranfield CRM Research Forum in 2004. This work was carried out in the context of an, and as a development of, the Forum's work in 2003, during which CRM was defined and characterised.

The research agenda for 2004, shaped and agreed by the Forum's members, was designed to further the group's aim to facilitate excellence in CRM. As such, it seeks to answer three research questions that arose from the 2003 research, namely:

a) What is the most effective way to organise for CRM?

b) What is the best way to justify CRM investment?

c) How can CRM analytics be improved?

The work to answer these questions began with a review of the previous, published, work in these areas. In each case, previous work provided some guidance but illuminated gaps in our knowledge:

a) Organising for CRM requires both senior management support and cross functional activity. The most practical way to allocate these two expensive resources is not clear from the literature.

b) Justifying CRM must provide for buy-in, intelligent resource allocation and subsequent control. Current processes combine rational and non-rational processes, but the most appropriate mixture of these has not yet been elucidated by the literature.

c) CRM analytics is based on correlating customer needs and motivations to manageable data and analysing that data. Whilst the mathematical processes of data analysis are well developed, the process of clarifying motivations and correlating them to data is not well understood.

The aims of the empirical phase of this work were to explore the areas not yet explicated by the literature in all three areas, rather than an in depth study of one of the areas. Consequently, a qualitative research methodology was adopted to gain insight into the three areas rather than a quantitative approach to prove particular hypotheses. In the course of the research, some 17 companies and 38 individuals were interviewed or took part in the research in some way. In each of the three areas, the findings of the research expanded our knowledge prior to the research.

In the area of CRM organisation, a three-stage waterfall metaphor was noted as effective companies adjusted both the level and breadth of involvement in CRM teams according to the stage of project life cycle. As the project proceeds, the level of senior management involvement lowers and the breadth of involvement widens in three observable stages. Further, key factors were noted in the practical implementation of CRM cross functional teams. In the area of CRM justification, the justification process was found to blend financial justification, strategic imperatives and linked investment decisions. Notably, the most effective processes were those that fitted the organisation's culture. Hence effective CRM justification was observed to operate in a manner analogous to a key, with the size of each of the three justification factors adjusted to meet the particular circumstances of the company. Finally, CRM analytics were found to be improved and elucidated by the use of motivationally based segmentation models. These provide valuable insight but operate effectively only when the available data is of a type that provides useful correlation with customer motivations.

The implications of this work for practitioners are wide ranging and important. CRM is best implemented by the deliberated management of cross functional teams, varied according to project stage and recognising key HR and management prerequisites. CRM is best justified by a process specific to the company involved. Managers can best achieve justification by adapting that process to the internal context of the company. CRM analytics can be improved by the application of motivationally based segmentation. However, the optimal level of value creation is dependent upon data acquisition that is atypical of many organisations.

This work greatly elucidates CRM implementation but, inevitably, suggests new questions. In particular, it raises the issue of value creation. Whilst CRM can be seen to create value, it is not clear how much value it creates and whether this value is to customer, company or both. Further, it is not clear if this varies according to the mode of CRM approach taken or business model employed. These unanswered questions may form the basis of future research work.

2. Introduction

2.1. The CRM Research Forum and its Prior Work

The research and findings documented in this report are part of an ongoing programme of work carried out by the Cranfield CRM Research Forum. In particular, they are set in the context of the Forum's previous work (Clark, McDonald, & Smith 2002) and the practitioner-oriented research agenda that arose from that prior work.

The research agenda of the Cranfield CRM Research Forum is set by its members, a group of leading companies from many industries sharing an interest in CRM. Their research interests are driven largely not by academic considerations, but by issues of practical understanding and implementation. Their interests are framed by the increasing ubiquity and importance of Customer Relationship Management across a breadth of industry sectors, the high levels of investment associated with CRM systems and the problematic nature of creating returns on those investments. More broadly, CRM systems and processes are seen by the members of the forum as part of a strategic response to market maturation. Hence the challenge of becoming excellent at CRM is of great importance to both the Cranfield CRM Research Forum members and the wider community of marketing practitioners. It is to this aim of excellence in CRM that the Forum's research is addressed.

The first year of the Forum's research addressed the issue of defining and characterising CRM. It was clear from initial surveys of the literature that the influence of the promotion of CRM products and services on the embryonic process had led to a confusing and inconsistent use of the term and that such confusion was hindering attempts to understand CRM and improve its practice. The first practical output of the Forum's work, arising from a review of the CRM literature, was to identify six common and distinct attributes of CRM processes as follows:

1. The use of individual (rather than sample or consolidated) customer information
2. The gathering of customer data across many customer contact or 'touch' points
3. The use of information and telecommunications technology as an enabler
4. Selective resource allocation between customers
5. The creation or adaptation of a tailored value proposition at an individual level
6. The direction of that value proposition towards the achievement of organisational goals.

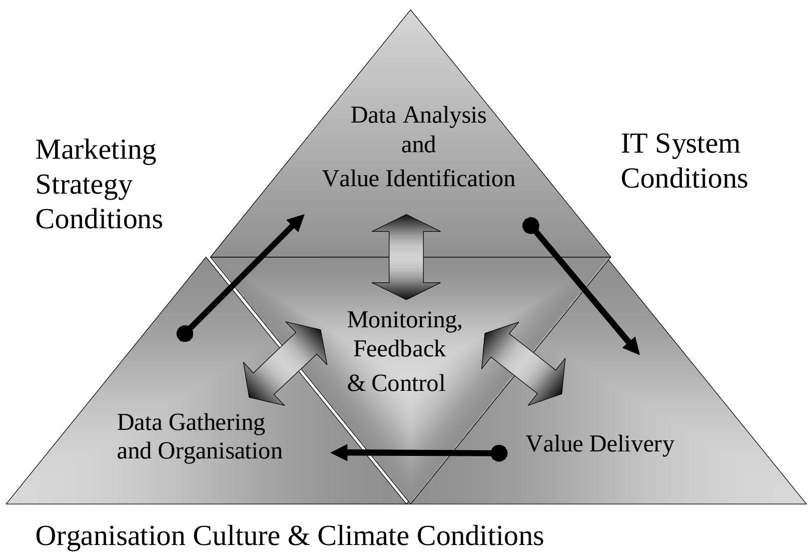
Using these common themes taken from the breadth of the CRM literature suggested a functional definition of CRM is:

"Customer Relationship Management is the management process that uses individual customer data to enable a tailored and mutually valuable proposition. In all but the smallest of organisations, Customer Relationship Management is characterised by the IT enabled integration of customer data from multiple sources."

It is this definition of CRM that was used in the second year of research reported in this document.

Three major findings of the Forum's first year of work arose from the primary research carried out in a deliberately sampled selection of CRM-using firms in business-to-business (B2B) and business-to-consumer (B2C) markets in both product and service sectors. The first of these was to identify the antecedents or prerequisite conditions necessary for successful CRM. These were grouped into preconditions of marketing strategy, organisational culture and climate and IT system management, the presence or absence of which defined a "CRM space" that is necessary for CRM to work effectively. The second of these findings was to characterise CRM as an iterative process containing four sub-processes. These processes take as their inputs customer data and other sources of information and their iteration results in the creation of mutually valuable value propositions. The detail of these findings is contained in the report of that work (Clark, McDonald, & Smith 2002) and is graphically summarised in Figure 1.

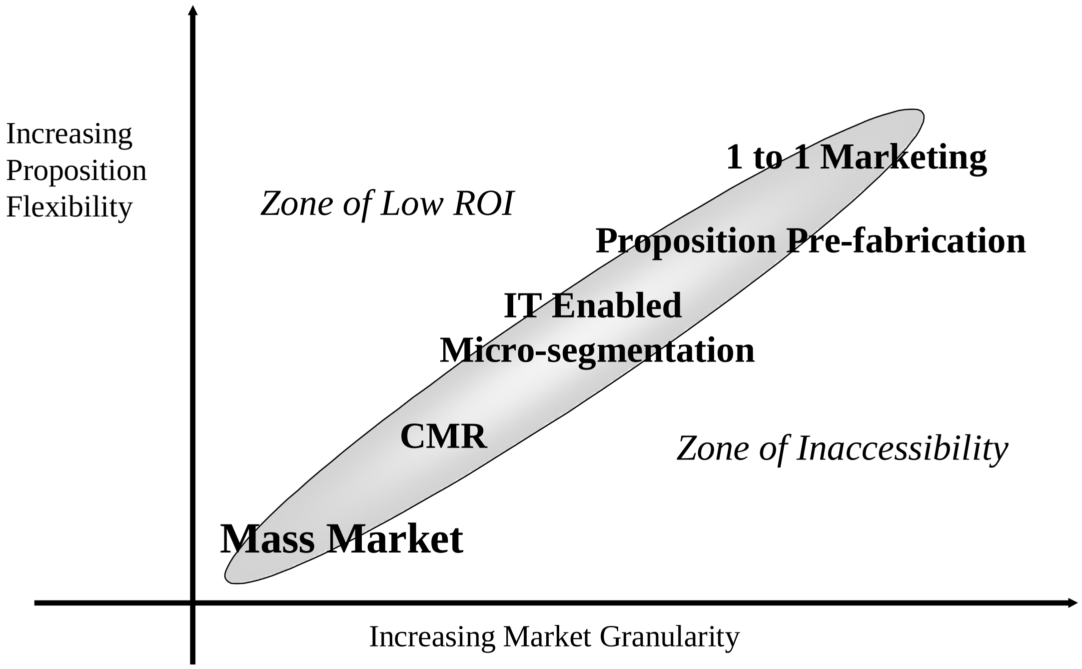
Figure 1: The Generic Model of Effective CRM



The third finding of this previous work, also the result of the primary research, concerned the manner in which this generic process adapted to particular contexts of implementation. It was found that, whilst the concepts of the CRM space and the generic process held true in all observed cases, there was significant variation in the detail of the implementation. Two dimensions of the implementation context were found to be important: Proposition Flexibility and Market Granularity. These were seen to derive from internal and external factors respectively and combined to form the "CRM ecosystem" to which the generic process was adapted. Dependent on the prevailing context, CRM was found to be either possible but not valuable, valuable but not possible or both valuable and possible. In the last of these three situations, the detail of the CRM ecosystem dictated the most appropriate form of CRM and five "sub-species "of the generic CRM process were observed. These useful observations, and the concomitant implications for and recommendations to practitioners are reported in the prior mentioned report (ibid).

A graphical summary is provided in Figure 2.

Figure 2: The CRM Ecosystem and the Five Sub-Species of CRM



2.2. Research Agenda for this Year's Work

Whilst the first year of the Forum's research fulfilled its objectives of defining and characterising CRM, it inevitably raised further questions. These concerned many aspects of CRM implementation and translated into a very large number of research topics. This wish list was considered by the Forum members and rationalised to a manageable amount of research. Three salient topics were short listed against criteria of practical value:

a) **Organising for CRM**
It became clear in the first year's research that cross functional working was both essential to and problematic for CRM implementation. This suggested that a greater understanding of best practice in this area would be of value.

b) **Justification of CRM investment**
The first year's research identified that investment into CRM was often large and its justification problematic. The failure of traditional capital expenditure processes to cope with the often intangible output benefits of CRM processes suggested that a better understanding of this would be valuable.

c) **CRM Analytics**
The first year of research suggested that while commonalities of approach could be seen in CRM analytics, the process of creating value from data was largely implicit

and lacked systematic foundations. This suggested that a better understanding of how customer insight can be interpolated from data would be valuable.

Even this reduced list of areas of interest represents a very large research workload if the topics are to be investigated in a meaningful way. Each topic corresponds to a complex and multi-faceted practitioner problem that is not accessible to simple research methodology. In addition, they are relatively disconnected problems offering limited capacity for overlap or synergy in the research. For these reasons, it was agreed that the research programme faced an important choice in the allocation of its resources. It could look at one of the areas in great depth or look at all three in an exploratory depth. In order to optimise the value of the findings to the Forum members, the latter approach was adopted. Hence, the remainder of this report details the work of the Cranfield CRM Research Forum towards creating an exploratory study of CRM implementation in terms of organising, justification and analytics.

3. Existing Knowledge and Explanations of CRM Implementation

This section of the report summarises the extant literature as it pertains to the three areas of research. In each case, this work is neither restricted to CRM nor exhaustive in its scope. Relatively little CRM-specific literature exists and even less CRM-specific empirical work is published and this paucity of CRM-specific prior work provides an insufficient foundation for this research. By contrast, the literature areas which indirectly inform these areas of research but do not apply directly to CRM are vast and it is neither appropriate nor practical to describe all of this body of work. Instead, the following sections draw upon the CRM specific and more general published work to construct possible explanations of CRM understanding and provide hypotheses for the research to test empirically.

3.1. CRM Organisation

Previous research into organisational aspects of CRM implementation is fairly consistent in its conclusions, but these are relatively undeveloped in terms that might be of use to the practitioner. In particular, the general view of previous researchers has centred on the importance of maximising two dimensions of the organisational arrangements for managing CRM projects: senior management involvement and breadth of functional involvement. The consensus of the literature is that an appropriate organisational form for effective implementation of CRM must involve a high degree of senior management involvement and endorsement combined with full and active involvement of all departments with any significant involvement in the CRM process. Examples of research in this vein include Ryals & Knox 2001, who suggest using process teams to improve the management of functional interdependencies and Helfert & Vith 1999, who also recommend carefully managed team composition and deliberate group processes. However, other work has suggested that teams with disparate backgrounds work less well than teams with shared backgrounds and that even common background teams can be hindered by centralised leadership (Bunderson 2003). The relatively little work that has looked at how to lead non-hierarchical teams points to the importance of moving across functional boundaries to build relationships and empower teams (Druskat & Wheeler 2003). Other researchers have gone as far as to suggest that, in contexts where different functions are highly independent, the traditional marketing department should be disbanded (Moller & Rajala 1999). Some work has considered HR management practices as regards the implementation of major IT processes (Martinsons & Chong 1999), identifying the need for more supportive and proactive HR processes, but this appears to have only tangential relevance to CRM implementation. Other research that seems to confirm intuitive views on organisational aspects of CRM implementation includes that which looks at key employee turnover (Bendapudi & Leone 2002), internal relationships (Beckett-Camarata, Camarata, & Barker 1998) and lack of clarity of roles in matrix structures (Goold & Campbell 2003).

Taken as a whole, this work would suggest the management of a CRM project by a team that includes all levels of management and all possible functions. As such, the published work gives little practical guidance to managers. It does not, for instance, identify any contextual considerations (e.g. the stage of the project or the detailed nature of the project) upon which the optimal CRM organisation might be contingent. Nor does it offer insight into how to lead matrix teams or manage the likely implications of such a panacea structure (e.g. the consumption of limited management time or the slowing of decision making processes by bureaucratic teams) or how to fit such organisational sub-groups within traditional functional structures.

A pragmatic synthesis of previous work would suggest that the optimal organisational structure for CRM implementation is flexible. It incorporates both the need for senior management involvement and broad functional representation, but varies both in relation to the needs of the project, needs which are themselves variable with the scope of the project, and its stage of implementation. This in turn suggests that the aim of this part of the research should be to test this hypothesis, to examine if and how the organisational structure used varies and if an association can be observed between the style of organisation and the success or otherwise of the CRM project.

3.2. Justification of CRM Investment

As with organising for CRM, the topic of how organisations make CRM investment decisions is not covered in any depth in the published literature. However, the topic of how strategic decisions are made more generally has been exhaustively researched and written about.

A synthesis of this research is that decision making processes in organisations have both explicit and implicit features. Explicitly, processes are rational, using formal processes, models and techniques to assess objectively decision alternatives against criteria developed from clear organisational objectives. Implicitly, rational processes are supported and even subverted by informal processes which are incremental (in which the decision is driven by many smaller decisions) and often political (in which the decision is driven by power relationships and personal agendas), which use implicit organisational objectives as their reference points. The nature of implicit, informal decision making processes has a long history, starting with Lindblom 1959 and developed by Mintzberg, Raisinghani, & Theoret 1976 and Quinn 1980. This finds that the implicit processes are also very variable between organisations and is dominated by these two sub-processes, the political and the incremental. In addition, the freedom of decision making is often less than the explicit picture suggests, with many decisions being heavily constrained and directed by circumstances. A good summary of the research in this area is given in Schwenk 1995, which also describes the systematic biases inherent in managerial decision making. The nature of the explicit, formal processes for management decisions has been examined in, for instance, Hitt & Tyler 1991, Langley 1990 and Sinha 1990 and even that explicit process is found to vary between organisations as it adapts to suit the type of decision and the organisational culture. Various typologies have been developed to describe this variation in strategic decision making between organisations (Hickson, Butler, Cray, Mallory, & Wilson 1986) and (Shrivastava & Grant 1985).

This extensive research of how companies make decisions is useful to the extent that it makes clear that they are not simply rational. This suggests that any research approach that investigated only the rational side of CRM justification would by simplistic and unlikely to contribute usefully to management practice. However, the value of this research is limited by the fact that it offers no recommendations as to how best to make large decisions, such as CRM investment.

The more specific research into CRM investment decisions and other large IT projects is much less voluminous. Some (Turchan & Mateus 2001, Day 2000, Gummeson 1998) usefully explore the value of relationships, but make little progress towards linking it with investment decisions. Other parts of the literature make useful attempts at understanding and resolving the difficulty of the CRM investment decision specifically. The tenor of this work is that the benefits arising from CRM may be intangible and, even when they are not, it is difficult to correlate the benefit directly to the investment. Case studies such as Narayanan & Brem 2002 and Rust, Zeithaml, & Lemon 2000, make some attempt at proving this correlation but are limited in scope and do not distinguish between association and causation. Since traditional capital expenditure approval processes, based on concepts like Net Present Value and positive risk adjusted Return on Investment, depend on these correlations, they are of limited use in CRM resource allocation decisions. However, the literature also suggests that this issue is not limited to CRM investment (Gordon & Iyengar 1996).

Examples of work which specifically considers CRM or IT investment decisions include Maklan, Knox, & Ryals 2003, which suggests that asset value is a better approach than Net Present Value or Discounted Cash Flow analysis, and Peppard & Ward 2002, who advocate the use of the technique Benefits Dependency Network to assess both quantifiable and non-quantifiable benefits. Finally, a theoretical approach has been suggested (Ryals 2003) which uses a portfolio management approach to inform the CRM investment decision. However, this set of work concerning CRM investment specifically addresses only the explicit rational part of the decision whilst the much larger body of decision making research makes clear that this is only a limited picture of the reality of how companies make decisions.

Synthesising the above summarised work leads to three related conclusions. The first is that justifying CRM investment is an unsolved problem. The second is that a purely rational or explicit approach to justification is unlikely to be either possible or acceptable to organisational cultures. The third is that a pragmatic approach to justification may be developed by addressing both explicit and implicit parts of an organisation's decision making process and suggesting a contingent approach in which the justification case may be adapted to the circumstances of the organisation. This in turn suggests that the aim of this part of the research should be to examine if and how the justification process used varies between organisational contexts and if generic approach to the justification of CRM investment can be deduced from that practice.

3.3. CRM Analytics

As with organising for CRM and justification of CRM, the literature in this area can be broadly divided into two parts; a narrowly based collection of work specifically related to CRM analytics and a voluminous body of literature concerning the use of customer data to uncover segmentation.

The first, CRM-specific, body of literature describes the various methods by which data is analysed. This work (for instance Furness 2003, Ryals 2001 and Shaw et al. 2001) characterises the various processes for translating data into customer insights. Although superficially complex, these processes can be resolved into a limited set of processes for identifying either association between data sets or extrapolating from historical data. In the first case, statistically significant association between one customer characteristic (say, age or address) and some buying behaviour is used to infer likely buying behaviour for all customers. In the second, a historically recorded pattern of data (usually transactional data, for instance reduced use of services) is taken to infer likely future behaviour (for instance, a greater propensity to defect). Simplified still further, all of this work can be seen as “trawling” the data for anisotropy (that is, unevenness compared to random distribution). Although the mathematics of such processes is complex at a detailed level, it is not that which seems to trouble practitioners. The challenge, not clearly addressed in this body of literature, lies in the validity of the data as a proxy for customer behaviour and intent (Mitchell 1996). Taken as a whole, this literature suggests that CRM analytics is an unevenly developed discipline. Knowledge of how to identify data relationships is well developed. However, understanding of the relationship between data patterns and customer needs or motivations (and hence customer insight) is much less well developed.

The body of prior research that most closely pertains to this issue is that concerning segmentation. Segmentation is a fundamental concept in marketing, although it is often misunderstood. Segments are groups of customers who behave similarly in response to a particular value proposition (Kotler 1991, McDonald 2002). Because of the practical difficulty of characterising segments, they are often mistaken for groups of customers who share the same descriptive characteristics (for instance, age or industry classification). Some useful literature exists concerning the use of data to identify true segments. There are examples of segments in terms of relationship needs (Schijns & Schroder 1996) and, of similar approach, transaction complexity (Freytag & Clarke 2001). Other examples include inferring needs from combining POS scanner data and household characteristics (Andrews & Currim 2003) and, interestingly, segmenting football fans from direct mail data (Tapp & Clowes 2002). A close reading of this literature reveals a common theme that is consistent with that conveyed in the CRM analytics data above. That is, it is possible to postulate true segments based on differentiating or discriminating motivators, although this requires a deep understanding of customers. What is much less clear is how to relate those customer motivations to data and hence create customer insight from the mathematical analysis. This motivation-to-data correlation stage in the analytic process appears to be relatively poorly understood, although attempts at creating a motivation based segmentation process have been published (Smith 2004). Hence both sets of literature suggest that effective CRM analytics requires two sets of processes; data analytics, which is well developed discipline, and motivational insight, which is much less developed.

Significantly, a well developed explanation of customer needs and motivations exists in the psychology literature. Maslow (Maslow 1943) and later Herzberg (Herzberg, Mausner, & Snyderman 1959) constructed the idea of a hierarchy of needs (and hence motivations), the nature of which was characteristic to individuals. Hence the literature suggests a confluence of three ideas that might contribute towards the improvement of CRM analytics. The first is that data analysis is already a developed tool. The second is the correlation of motivations or needs to data is undeveloped and currently problematic. The third is that the concepts of differential motivations might be usefully employed to fill this gap and hence improve the process of CRM analytics. The use of models of differential motivation as a basis for CRM analytics is therefore proposed as an approach for this third part of the research.

4. Research Methodology

4.1. Methodological Considerations

Clearly, the choice of research methodology is critical to the validity of the research and the usefulness of the results. In broad terms, the methodological choice is between:

a) A quantitative study measuring tangible facts across a relatively large number of companies

and

b) A qualitative study uncovering less tangible evidence across a smaller number of companies

The following two factors were considered in selecting the research approach and designing the method:

1. **The nature of the phenomenon to be studied**
   In this case, all three research areas were, to a degree, nebulous and ill-defined. The concepts to be studied (for instance, team effectiveness) could not be quantified in any valid way and did not correlate closely to any objective, quantitative observables. This was exacerbated by the issue of confidentiality, in that participating companies are rarely willing to offer financial or other numerical data that might be commercially sensitive.
2. **The research objectives**
   In this case, all three research objectives were of a deductive rather than inductive nature. That is, the research was seeking to create insight from the observations rather than attempting to test the validity of a pre-set theory or hypothesis.

Hence both factors suggested that only a qualitative approach would be more appropriate and this was adopted.

4.2. Method Description

In design of the method, within the broad approach of a qualitative study, three aspects of methodology were regarded as critical to a successful outcome:

a) **Sampling**
   Whilst a large sample size was not needed from the point of view of statistical generalisability, the sampling had to be of sufficient breadth to encompass variation in firm size, market type and CRM process stage of implementation. The companies that took part in the research are shown in Table 1, but it should be noted that not all companies took part in all three parts of the research.

Table 1: Participating Companies

Company Name	Business Description
3M	Road traffic materials division
ABN Amro	Retail and commercial banking
BOC	Industrial gases
CPF Ltd	Agricultural supplies
Deutsche Leasing	Capital Goods Financing
Emirates	Airline
HGCA	Services to cereal growers
ING	Retail and commercial banking
Lloyds TSB	Retail Banking
LSO	London Symphony Orchestra
May & Cocks	Chartered Accountancy
PriceWaterhouseCoopers	Professional Services
Smile	Retail banking
Tarmac	Construction materials
Technical Indexes	B2B information services
Yorkshire BS	Retail financial services
Zurich	Corporate financial services

b) **Data Collection**

The three research areas each required slightly different approaches to data collection.

The CRM Organising element was judged to be particularly prone to single respondent bias (Bowman & Ambrosini 1997) and so multiple respondents were used in each company, usually two or three of the CRM team. By contrast, the justification area was judged to be constrained by the level of knowledge required to discuss justification. In this case, one respondent, usually the SBU head or senior financial executive was interviewed. In both these cases, a semi-structured questionnaire was used to ensure consistency and allow comparison between interviews (see Appendix). The majority of the interviews were carried out in person, but some were carried out by telephone when dictated by geography. The interviews were then transcribed.

The CRM analytics investigation required a completely different approach. In this area, participating companies were taken through a systematic process, based upon the extant literature to identify discriminating motivators and correlating data sets. Each company was then asked to carry out an agreed programme of data analysis and report back the results.

c) **Data Analysis**

CRM organisation and justification interviews were content analysed using NUD:1ST software. The CRM analytics output was analysed manually.

5. Research Findings

5.1. An overview of the findings for all three research areas

This research was, as stated above, broad in its scope and sought to gain more than superficial insight into the three areas of investigation. Approximately 120,000 words of interview transcript were analysed, together with additional material provided by the case study companies. The findings are therefore not simple and monochromatic. Instead, they are complex and shaded. In order to clarify the findings laid out in the following three sections, therefore, it is worthwhile to consider and overview of the insights gained.

The study of how organisations arranged themselves to implement CRM was built on a clear consensus in the literature. CRM is atypical of most large projects because of its cross-functional [scope/impact] and the potential lack of clarity about the management process and desired outcomes. Compared to, say, a new manufacturing plant, research facility or sales reporting system, CRM touches on many more areas and requires more organisational change. Consistent with this, previous researchers identified senior management involvement and cross-functional working as the two critical issues. Whilst these findings fit with managers' intuition, they do not answer the question as to how to apply them in practice. Senior management time is not limitless and senior management involvement, whilst valuable, does not solve all problems, especially when the problems require a level of technical knowledge not held at senior level. Further, involvement of all functions has a price in terms of management time and can be seen as cumbersome at stages in the project when only one or two functions are needed to solve the problem. The research revealed that the best results arise from varying the two dimensions of amount of senior management involvement and breadth of functional involvement in relation to the stage of the project. Further nuances, regarding the timing of involvement of system providers and the use of dedicated project management resource were also revealed. As described below, the optimal structuring of a CRM team can be expressed in terms of a waterfall metaphor, with the breadth of functional involvement increasing and the level of senior management involvement decreasing as the project advances.

The justification of CRM projects was suggested by the previous research to be much more complex than simply demonstrating Return on Investment. It suggested that the complexity of CRM, both in its process and in its possible outcomes, was not amenable to solely financial analysis and that attempts to do so would be misleading in their simplicity. The work further suggested that intangible issues, such as organisational culture, played a large part in justifying projects. However, in broadening the scope of thinking about CRM justification, the literature did not provide much in the way of practical guidance. In particular, it did not give insight into how this broader, more than just financial, thinking could provide the project control parameters and the project ownership that are important by-products of the justification process. The research revealed that the most effective way to justify a CRM investment was indeed culturally specific. That is, there is no one best way but there is a best way for each organisation. Crucially, the research revealed there to be three components of justification: financial, strategic and linked decision factors, as described below, and that each sub-component could be composed of a number of elements. It would appear that the set of justification considerations that is most likely to gain approval is an organisationally specific mix of the three sub components and that set of considerations also provides a valuable check list for gaining buy-in and establishing control parameters.

The prior research into CRM analytics reveals both a gap in our understanding and a potential means of filling that gap. It is clear that effective companies are those which identify discriminating motivators and find utilisable data-proxies for them. However, the CRM literature provides little guidance for establishing discriminating motivators. The academic literature on segmentation informs the characterisation of true segments but gives us little insight into how these might be identified from data. The psychological explanation of motivations suggests ideas about how we might practically look for true segments in the data. Hence the combination of these ideas provides a prototype method for elucidating segments in CRM analytics. The experiments carried out seem to validate this prototype method and provide insight into what practical steps might be needed to implement this process, especially in terms of data type used. As described below, this work implies that effective CRM analytics can be progressed by first using motivational theory to pre-identify likely segments and then use data-analysis to quantify them and allocate individuals to them. Further, this work provides new insight into the limitations and pre-requisites of the data required. Importantly, it reveals that data value is a function of three things: data length (pertaining to its history), data depth (pertaining to the number of transactions recorded per customer) and data breadth (pertaining to the associations that can be made between data and motivations).

5.2. CRM Organisation

5.2.1. Four Lessons of CRM Implementation Teams

As can be seen from the interview guide (see Appendix), the CRM organisation interviews began by characterising the organisation and CRM project before establishing the objectives of the project. These self-stated project objectives were used later in the interview to assess the success or otherwise of the CRM project. The bulk of the interview involved gaining a detailed understanding of the CRM team, its composition, structure and working processes. Later analysis concentrated on looking for association between patterns of CRM organisation and aspects of success and failure. In this way, the interviews were intended to draw out not only what organisational features worked and did not, but also the connections between specific organisational traits and particular dimensions of failure or success. In addition, this method is the most appropriate to uncover not just the fact of self-assessed success or failure but also to elucidate any underlying mechanisms of that success or failure.

The organisations and CRM projects assessed were very varied across the sample. The case study companies varied greatly in size and industry category, but also by nature of CRM project and stage of implementation. By contrast, however, there was relatively little variation in the manner in which the organisations structured themselves. With some important subtleties, the traditional functional hierarchy (with varying degrees of flatness or complexity) was maintained in all cases, with a cross-functional matrix structure for the CRM team placed on top of that. In other words, CRM specific structures were not used in the place of traditional, functional, structures. For the most part, this seemed to be an artefact of two underlying assumptions made by the organisations. Firstly, that the extant structure was necessary in any case for execution of the non-CRM activity which remained the largest part of the organisations' work. Secondly, CRM specific structures were believed to be counter productive. On probing, CRM specific organisational structures were associated by the respondents with "ivory tower syndrome", a term often used for describing the disconnection of CRM activity with other parts of the business process with negative consequences.

Examples were cited of previous, abortive CRM projects, the failure of which was attributed to such functional insularity, especially IT function insularity. Although no examples of CRM projects managed by dedicated CRM functions were observed, there were several signs in the research that indicated that traditional structures with cross-functional overlays were not, of themselves sufficient, and that special measures were needed to enable CRM team performance. These were:

a) **Team member selection**
It was noted that, in order to work well, the choice of individual selected to represent a function was important. Where failures were noted, this was associated with functional managers "offloading" weaker team members on the CRM team in order to divert them. By contrast, especially effective team working was cited as a result of functions allocating their best people, despite the demands on their time. Importantly, the characteristics for the most effective CRM team members included both technical competency and non-technical "boundary-spanning" skills. When failure was attributed to failing team members, the inter-relatedness of the CRM project meant that failure was not localised to that person's responsibilities, but was often systemic and hard to identify and correct.

> *"The only issue we've had, which I think you always get with these projects, is the business doesn't want to take it seriously. They want to get on with running their business. So you ask them to second people in, and they do, and we've had some very good, talented people, but I think you probably could have put a bit more emphasis (on getting good people on the project team)"*
>
> **INTERVIEWEE DESCRIBING HOW TEAM MEMBER SELECTION IS IMPORTANT TO THE FUNCTIONING OF THE CRM TEAM**

b) **Political lubrication**
It was observed that, notwithstanding effective teams, the cross functional nature of CRM projects was prone to throw up political barriers. In probing, these barriers could be seen to have a common cause. Rather than being due to personal power considerations of functional leaders, they were instead the result of small, but significant, contradictions between functional objectives. These internal inconsistencies arose from the perfectly understandable habit of giving functions their own broad objectives and allowing functional heads to cascade out sub-objectives. Prior to the implementation of CRM, these sub-objectives either did not interact or their interaction was hidden. The elucidation of numerous internal contradictions during the CRM implementation was an oft cited friction which slowed down the process. At this point, the intervention of more senior managers either to prioritise or reconcile conflicting objectives was important and was observed to be a form of political lubrication for CRM implementation.

> *"This culminated in the appointment of our Marketing Director at board level, which is a new position for us; we'd never in our history had a Marketing Director at board level. So her appointment was a watershed for us, and she set about engaging the regional businesses in defining where we are now, where we want to be in three years time and how we might get there."*
>
> **INTERVIEWEE DESCRIBING THE IMPORTANCE OF A SENIOR EXECUTIVE ACTING TO POLITICALLY LUBRICATE THE PROJECT.**

c) **Dedicated resource**

The universally applied model was to overlay CRM implementation on top of the normal functional based organisational structure. This was noted to have several advantages in terms of allowing other work to continue and avoiding ivory tower syndrome, as well as being resource efficient. However, the negative most commonly associated with this approach was resource diversion. Other work competed for management time with the CRM project. In such competition, the other work (typically routine fire-fighting) had two advantages. Firstly, it was perceived as more urgent and secondly it was often more attractive to the manager, who could recognise the problem and achieve a "quick-win". As a result, CRM projects were vulnerable to resource deprivation, especially in management time. Again, the cross functional nature of the process meant that, at any one time, one or more functions would be diverting resources and slowing the project. Hence the CRM project was at risk of almost permanent hindrance from resource deprivation. The antidote to this lay in the allocation of dedicated resource. This was observed to take a number of forms across a spectrum of the amount of resource dedication. At the lowest level, key members of the team were given time to devote to CRM, rather than have it simply added to an already stretching list of objectives. At a higher level of dedication, an internal secondment or external contractor was allocated to the CRM project as an enabler. Note that this was only successful when the role was to enable and drive the project and not to replace the activity of the functionally based managers. At the extreme end of resource dedication, a small specialist group was set up to support the project. Note however that this again acted as an enabler (and perhaps provider of specialist skills) and not as a replacement for functional managers.

> *"We had our (Business Unit Head) in at the start of the project. We had support from the top and we gained support lower down as well. He was very, very supportive as our business manager at the start. And he was frustrated that we went off at quite a decent pace and then it went into a kind of lull with a bit of work going on in the background. And it was (Business Unit Head) with (the Project Manager) that managed to re-energise the project."*
>
> **INTERVIEWEE DESCRIBING HOW TOP LEVEL SUPPORT AND PROJECT MANAGEMENT COMBINED TO CHANNEL THE PROJECT AND CORRECT DIFFUSION OF EFFORT**

d) **Task delimitation**

A common feature noted in the CRM projects observed was the idea of task delimitation, or breakdown of the project into phases or sub-projects. Typically, this involved designing the implementation into stages that were functionally based (e.g. sales team, customer service etc.) and ordering them in terms of ease of implementation and most commercial impact. In this way, the implementation difficulties associated with cross-functionality were reduced. Some degree of re-iteration was then required in subsequent stages, as prior phases were seen to have hindered or limited later stages, but these were of a detailed nature. Note that this task delimitation works well when in the context of a larger strategic vision of the project (see the strategic direction phase, below). Without this, the project becomes constrained by functional boundaries and does not realise benefits beyond those limits.

> *"…I do detect that one or two of (us) haven't yet seen the value that is likely to be at the end of the rainbow. …., I don't see the full possibilities either, but I do understand that it's going to change our way of working and ultimately it will be to our benefit. Some people like to see the world absolutely clearly before they commit and I think we've got one or two who aren't yet sure…We do have people who like to know where their boundaries are. "My level of authority starts here and finishes there, and I'm comfortable working within that." A few of them push the edges and we need those to push the edges, but the more woolly it gets in terms of cross functional responsibilities not being clear and objectives not being clear, the less comfortable we get. It fits the culture of the business. I'm not saying it's the right thing, but it does fit the culture of the business and that brings both advantages and disadvantages with it."*
>
> **INTERVIEWEE EXPLAINING THE DIFFICULTIES OF MANAGING A PROJECT WITH A VERY BROAD REMIT**

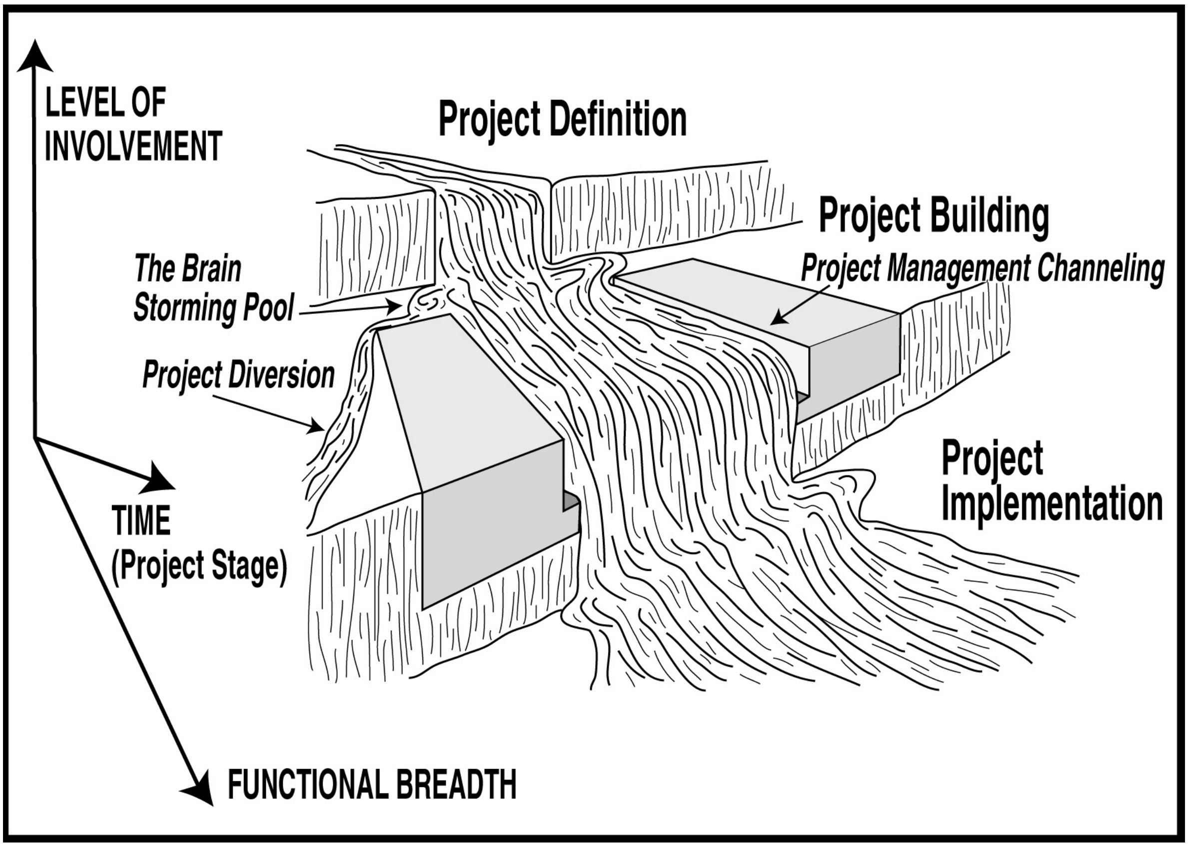
In short then, the optimal model for CRM organisation would appear to be a cross-functional overlay on top of the traditional functional structure. However, such an approach must be supported by applying the four lessons reported above. Note that, taken as a whole, these four lessons can all be seen as responses to the exceptional cross-functionality required by CRM. As such, they may well apply to other cross functional projects but less so to projects based in one department. In any case, they are important lessons for companies attempting CRM but whose large project experience is of more narrowly functional projects.

> *"Right at the beginning we told absolutely everybody who might feel that they had a contribution to make – with one exception who was overlooked by mistake. We had this huge session right at the beginning (project facilitator) came along and had bits of paper that hung on the walls and so on. The guy who dealt with it was very good. As people were talking he would make notes on what hadn't been picked up. And that, essentially, is how we scoped the project. Clearly you can't spend a whole year with all these people making their contributions, so it was then boiled down to a core team."*
>
> **INTERVIEWEE DESCRIBING THE BROADENING OF FUNCTIONAL INVOLVEMENT ONCE THE PROJECT AIMS WERE DEFINED.**

5.2.2. Adapting the CRM Team: The Waterfall Metaphor

As noted above, the case study companies reflected a range of CRM project types and, importantly, implementation phases. The four lessons reported above were observable across the entire sample but a further important finding was drawn from comparing different stages of CRM implementation. As discussed in the review of previous research, earlier researchers, including our own work, have cited the importance of both senior management support and cross functional involvement but left unanswered questions regarding the practical limitations on this. Simply put, involving all levels of management and all functions for the entire project would be unworkable. The analysis of the interviews therefore probed for how the case study companies made this work. What emerged was a pattern of management and functional involvement that was deliberately managed across the life of the project, as summarised in Figure 3: The CRM Waterfall.

Figure 3: The CRM Waterfall



The implementation of CRM can be seen as divisible into three stages, each with an optimal level of senior management involvement and breadth of functional involvement:

a) **Strategic definition**
This is the strategic stage of the project at which its scope and scale is defined. At this stage, the inputs are the strategic context of the project (its drivers and relationship to organisational objectives), the process is one of reconciliation with other activity and the outputs are broad defined objectives for the CRM project, initial resource allocation and, significantly, senior team consensus about commitment to

the project. The task of strategic definition is limited to the senior management team of the strategic business unit. Best practice would seem to involve the exclusion of lower levels of functional management and of system providers (except at an exploratory level). In both cases, their involvement would seem to risk diverting the project to tactical issues or designing it around the providers' capabilities.

b) **Project building**
This is the transitional phase between conception and execution of the project. Project building operates most effectively within the clearly defined parameters (objectives and resources) defined in the strategic definition phase. At this stage, the involvement of the senior management team remains important but is now typically limited to a single senior executive acting as sponsor and link to the executive team. Instead, a small group of functional middle managers now operates to develop specific objectives to clarify the key milestones, inputs and outputs of the projects. This stage frequently involves supplier selection and subsequent involvement of that organisation. It is also at this stage that dedicated resource becomes significant; at whatever level of the dedication spectrum (see above) is appropriate. The outputs of the project building stage are quite detailed, including task delimitation, resource allocation and scheduling for the subsequent stages of the project. As with the strategic definition phase, successful project building leads to an extension of consensus and ownership of CRM as an important by product.

c) **Project execution**
This is the final, albeit ongoing, phase of the project. It operates within the detailed task delimitation, resource allocation and scheduling set in the prior phase. Senior management involvement becomes less, now restricted to monitoring, control and political lubrication. Middle management involvement changes in its nature from definition to management of execution and is now supplemented with more involvement from functional staff. The outputs of this stage are the operational project and its benefits. Further, it is at this stage that the inevitable lessons of implementation are fed back for reiterations or development of the project.

This three stage model of CRM project implementation summarises the lessons learned by the case study companies in respect to balancing, in a practical way, the level of senior management involvement and the breadth of functional involvement. The metaphor of a waterfall is helpful in grasping the lifetime of the project. In the first stage, the project is quite narrow and restricted to a high level. At the next level, it broadens its involvement but at a lower level. Finally, the project reaches its maximum breadth at execution and the level of involvement of both senior and middle managers is reduced. The metaphor also acts a reminder of some of the threats to successful implementation. Premature broadening slows the project, and it is also prone to form a delta, slowing as it divides into numerous sub-divisions. Without wishing to stretch the metaphor too far, the role of the project leader here, internal or external, is to canalise the flow, ensuring rapid progress to the objective. Of course, the model is only an aid to thinking. In practice the stages overlap and no two projects are alike. However, the idea of deliberately managing the level and breadth of involvement across the project lifecycle is an important lesson to be gleaned from the experience of the companies studied.

5.3. CRM Justification

> *"No, we didn't (have a set of ROI targets for CRM) to be perfectly honest! Every year we have to produce a plan; we are given financial targets to reach. Those financial targets are wrapped around revenue and profits and we have to create a certain level of renewal business and a certain level of new business. Every year it gets more and more difficult and we just have to improve the ways in which we do things. We have to produce more products more quickly and get our critical mass of products even more quickly. In years gone by we could afford to launch something in year 1 and reach our critical mass for payback in year 2½. Now we want it within, probably, 5 to 6 months"*
>
> **MANAGING DIRECTOR OF A UK SUBSIDIARY EXPLAINING HOW BUSINESS IMPERATIVES MADE CRM AN ESSENTIAL DECISION RATHER THAN AN OPTIONAL ONE REQUIRING JUSTIFICATION.**

As can be seen from the interviews guide (see Appendix), the CRM justification interviews began by characterising the organisation and CRM project. The bulk of the interview then involved gaining a detailed understanding of the functions, people, processes and factors considered in the assessment of the CRM project and its justification in terms of allocation resource. As the literature summary revealed, previous research had shown that purely financial, quantitative, assessment and justification was neither common nor effective. Both in CRM and in other large complex projects, simplification to a purely financial case was potentially misleading and did not reflect the reality of how companies make complex strategic decisions. The questioning and analysis then concentrated on understanding what combination of financial and non-financial justification considerations were most effective in terms of the three aims of the justification process: effective allocation of resource, building ownership and establishing control parameters. This analysis revealed that the case studies, although representing a variety of industries, company sizes and stage of CRM implementation, were united in using a complex mixture of considerations to make the CRM investment decision. The nature of these considerations and the way they were combined in each organisation are described below.

> *"Well, normally, say, when the business wants to buy a new piece of capital equipment, they would have to (make a financial case) … if it's not required to just stay in business, well, we prefer business to put forward requests that actually generate a return, an incremental return, which beats our cost of capital, but clearly, a certain amount of your expenditure will be just to stay in business. So that won't really have a return … well, if it does, if you were to calculate it, the return would hopefully be very, very high, because it's essentially keeping you in business. (We've not), formulated any sort of financial justification as yet. But I think perhaps that's also because there's a strong view that we need to do this just to stay in business"*
>
> **INTERVIEWEE EXPLAINING THE CONTRAST BETWEEN DIFFERENT TYPES OF CAPITAL INVESTMENT JUSTIFICATION**

5.3.1. The Three Wards of CRM Investment Assessment

The interviews and subsequent analysis revealed a complex mixture of considerations and factors involved in the decisions of the case studies. Superficially, all companies claimed an explicitly rational process but subsequently revealed a more subtle blending of thoughts. These could be classified into three broad categories:

a) **Tangible factors**
All companies made some attempt to quantify, in financial terms, the benefits attributable to the CRM investment. These ranged widely in their level of sophistication. The least sophisticated involved assigning a financial return to the project based on no more than informed estimates. The more sophisticated involved breaking down those estimates into more refined estimated benefits, with the most sophisticated process of all observed involving a version of Benefits Dependency Network analysis to do this. In most cases, tangible benefits were attributed to a combination of increased outputs (e.g. via retention, penetration or cross selling) and more efficient inputs (e.g. better targeted selling resources). The value creation associated with these returns was then analysed by traditional financial methods (Discounted Cash Flow, Net Present Value etc.). The notable feature of all the companies examined was that their tangible assessment was based, at a fundamental level, on little more than intelligent estimates of the likely increase in outputs or efficiency. None of the companies were able to demonstrate a very rigorous process for making these estimates. That is not to say the estimates are weak or invalid. Arguably, the combined wisdom of several senior and experienced managers is a better method for estimating returns than a mathematical model. Certainly, the consensus estimate approach was valuable in building team consensus. However, this research does indicate that the existence of a scientifically rigorous process for valuing CRM investment is something of a myth, not existing in practice and arguably impossible in theory.

> *"Yes (we do set tangible targets for the investment). From the (quantitative) side the sales volume for the total company and the teams, in terms of sales, new business and growth. We have also improved our customer service and the satisfaction. But the more important thing from our sales perspective, this higher customer satisfaction has really generated higher sales volumes. In the last year where there was a recession (in our sector), we have now just 1% reduction with the sales volume, where the other companies have about 8% down. So you have to always relate the reaction you generate to your competitors."*
>
> **INTERVIEWEE DESCRIBING THE COMPLEX SET OF PERFORMANCE ATTRIBUTES DERIVING FROM THE CRM BUSINESS JUSTIFICATION.**

b) **Strategic factors**
The second set of factors considered were those that derived from the strategic context in which the organisation found itself. Typically, they corresponded to increased competitive pressures (from direct and indirect competition) arising from maturing markets and decreased core-product differentiation. Less often, they corresponded to a more fundamental re-positioning. In both cases, this strategic environment provided reasons to support the investment and, in effect, changed the investment from one aimed at growth to one aimed at preventing decline. In situations where strategic factors were

important, they underpinned the managerial consensus and relegated financial justification to the status of a "sanity check" rather than a deciding factor.

> *"No, no, there was no payback question. Because what was really driving it wasn't something where you could say: if we invest £270,000 we are going to get payback of £1 million by the end of year two. It wasn't that sort of thing. The business itself wouldn't exactly fall apart, but we would be increasingly ignorant of what our customers were doing, how they were using our services, what they were paying for us. And we would eventually start losing money. Renewals would just disappear"*
>
> **INTERVIEWEE EXPLAINING HOW THE STRATEGIC CONTEXT OF THE INVESTMENT DECISION MADE THE FINANCIAL ASSESSMENT LESS CRITICAL.**

c) **Linked decision factors**
The third set of factors that were important in the overall decision to invest in CRM were linked decisions. These involved near simultaneous investments into related areas or significant changes in existing resource allocation patterns. Examples of this included replacement of ageing financial systems, enterprise resource planning or sales force automation systems. These linked decisions affected both the timing and viability of CRM investments. Where they were important, they further reduced the need to prove the investment financially and supported the building on management consensus.

> *"Basically it was quite clear that we were using transactional information effectively to manage (operational issues). But we weren't using that data as well as we might to manage the customer management issues on the marketing and customer development side. There was a realisation that we were only using the data to part of its value. We weren't delivering across the business and we felt that we could bring a better knowledge base to the broader business."*
>
> **INTERVIEWEE EXPLAINING HOW THE CRM INVESTMENT DECISION WAS CLOSELY RELATED TO OTHER, OPERATIONAL, IT INVESTMENT CHOICES.**

Hence all three sets of factors were used, to a greater or lesser extent, by all the companies studied. Any attempt to justify CRM investment without considering all three factors is unlikely to generate the control, buy-in and effective resource allocation that is the aim of the justification process.

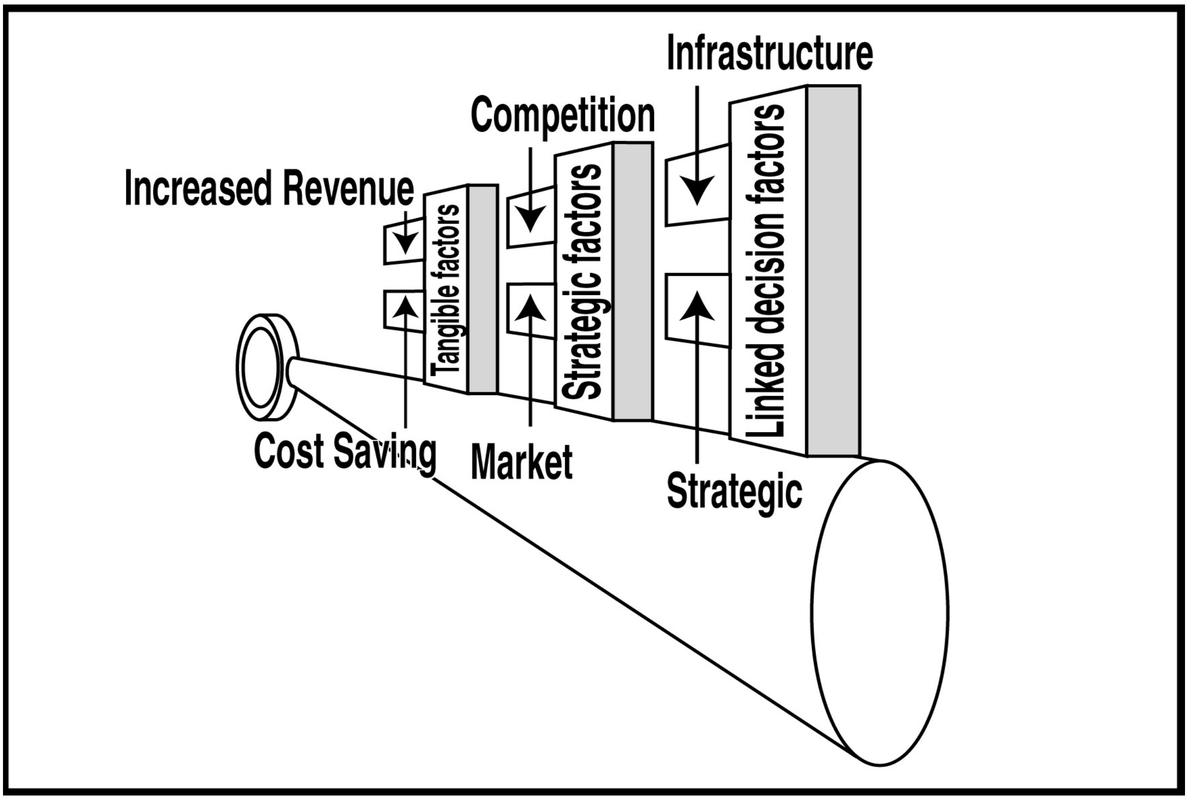
5.3.2. Justifying CRM Investment: The Key Metaphor

"Inevitably there's a combination (of tangible and intangible justification factors), but we are a bank, and we don't sign of any projects without a fairly detailed net present value calculation and an understanding of the capital that will be taken up by the investment and the net return of that project in a number of different ways. Those numbers have to be around somewhere. You always get to a level of emotion and subjectivity down below that. What we did do was to persuade the business that there was a difference between a number of metrics that we could measure in the competition and our own metrics. Things like how fast we got to market and what kind of speed of turning round within the organisation, what kind of speed to market there was on campaigns in excellent organisations, what kind of cost per account recruited excellent organisations were able to book and then compare them with ours. And we made the assumption that the difference between those organisations was the level of investment they'd made in a variety of technologies."

INTERVIEWEE, EXPLAINING HOW TANGIBLE AND INTANGIBLE FACTORS WERE USED IN THE CRM INVESTMENT DECISION.

The research, as well as uncovering the complexity of CRM investment decisions, also throws some light on how best to carry out this complex process in an organisation. The metaphor of a key helps our understanding. Each of the three factors (tangible, strategic and linked decisions) is analogous to a ward, or prominence, on the key (see Figure 4: The CRM Justification Key). The emphasis on each is not something that can be prescribed generally across all organisations, as it appears to be culturally specific. Instead, each component needs to be developed to fit the organisation. The financial justification ward, itself consisting of output and efficiency components, addresses organisational needs for control whilst contributing in a minor way to organisational buy-in and resource allocation comparisons. It should be prominent in organisational cultures which place a high value on control. The strategic factors address organisational needs to respond to increased competitive pressure whilst contributing strongly to management consensus. It should be prominent when the organisation believes it is in a context of greatly increased competitive threat. The linked decisions factors address organisational needs to draw linkages between several, potentially competing resource allocation decisions. This ward contributes strongly when organisations need both to control allocation resource and develop a management consensus. It should be prominent when the organisation is in a complex period of change.

Figure 4: The CRM Justification Key



"For the actual project (overall business idea) there was a lot of financial analysis done. For the CRM SAS database, I'll be honest, there wasn't a lot of analysis done. We knew it was something that we had to do, so it was almost an overhead that we had to incur to actually give us the information to track the business case. So in many ways it was an enabler that we just had to invest in. As far as I'm aware, there wasn't any business case done. I think we just took it as an overall cost to the project."

INTERVIEWEE DESCRIBING THE LACK OF FORMAL ANALYSIS FOR THE CRM INVESTMENT.

5.4. CRM Analytics

The research into the optimisation of CRM analytics was of a rather different nature to that of the other two research areas. Rather than an inductive approach, in which insight was sought from the current behaviour of the case companies, the analytics literature suggested a model for a more deductive approach, the testing of a theory in an experiment. This experiment, as outlined in the appendix, involved applying Herzberg's motivational theories to each market and exploring the connectivity of the data to the resultant motivation based segmentation. In this process, the experiments carried out, using real markets and real data, were intended to uncover answers to three quite specific questions:

a) Was it possible, using available knowledge and Herzberg's concepts, to develop a putative model of motivation based segmentation?

b) Was it possible, using currently available data, to identify valid proxy data for those segments?

c) Does the subsequent analysis yield utilisable segments?

The field research, into a variety of organisations, provided the following findings.

5.4.1. The Utility of Motivationally Based Segmentation

In this research, the first and most critical step involved market definition. In most cases, it was found that the product-oriented market definition used by the case organisations was not a good basis for understanding customer motivations. For instance, the “classical music market” was better defined as the “evening cultural entertainment market”. In most cases, the value proposition was much more complex than that suggested by the core product and it was the value proposition that was more useful in generating a hierarchy of needs. For instance, the provision of products was almost always supported by an extensive service and support package, the use of which was strongly indicative of the needs in the market. In all cases, however, it was found practical to develop a comprehensive and practical hierarchy of needs with the extant knowledge in the organisation. Much of this was tacit knowledge, but in most cases some formal qualitative research existed to support and augment the tacit knowledge of the managers. In all cases examined, the markets were relatively mature. That is, the lower, hygiene needs were well met by all competitors and even higher needs for efficiency, such as price and basic service levels, were well met and hard to address in a distinctive way. Hence, in most cases, it was higher emotional or intangible needs that were seen as driving the markets examined. It is hard to exemplify the hierarchies constructed without compromising the commercial confidentiality of the case companies. However, a generalised list of the motivations examined is shown in Table 2 below.

Table 2: Generalised Examples of Motivations

Motivation Level	Examples Observed
Highest or Emotional Needs	• Confidence in use needs • Self image needs • Organisational cultural fit • Personal career management needs
Higher or Efficiency Needs	• Higher performance or availability characteristics • Use or product compatibility issues • Bundling or consolidated supply needs
Basic or Efficacy Needs	• Basic performance and quality characteristics • Legal or regulatory approval • Basic availability levels

Similarly, tacit and explicit market knowledge was available to define these needs as motivators or dissatisfiers and to prioritise the motivators in terms of their impact on purchase behaviour. In none of the cases was there any significant difficulty is identifying the most important differentially motivating needs of the market place, although more often than not this knowledge was tacit rather than explicitly defined and tested by market research. However, limits of both tacit and explicit market knowledge were met when attempting to quantify the distribution of these motivations across the target market. It was noticeable that, even in the most data-rich organisations, data concerning individual or even representatively sampled customer motivations was in short supply and heavily outweighed by descriptor or transactional data. In other words, there was a clear mismatch in what information companies gathered; data that was easy to gather (or important for operational reasons) greatly outweighed data that would support insight into segmentation but was more difficult to gather.

Hence it appears that construction of putative motivationally based segmentation models is relatively straightforward and, in all cases, provided an original approach to segmentation that suggested greater value creating potential than the extant models, which were usually based on descriptor data (such as size) or on product usage or channel access. However, the ability to quantify this model is limited by the paucity of quantified motivation data collected by the organisations. In short, the value creation ability of CRM analytics was largely unrealised due to operationally driven data collection habits. This had important implications for the next question, assignment of data proxies, discussed below.

5.4.2. The Practicality of Assigning Data Proxies to Motivator Based Segments

The second stage of this process involved using the organisations' available data to characterise the segments. This would allow for both quantification of the segments and the assignment of individual customers to each segment. For instance, the frequent use of a help desk might be taken to correlate to a high emotional need for security in using the product or service. Alternatively, high but erratic product usage might suggest stock control or management needs. Similarly, two or three data types might be combined to infer a need.

In the case studies used, the quantity and type of data available varied greatly. Further, the degree to which it was unified into one accessible source that was amenable to analysis was also very uneven. Notwithstanding that, all organisations were able at least partially to correlate real data to motivational parameters. Data from both external and internal sources was used and combined to give approximate indications of segment size and to allocate particular customers to segments.

An important insight gained at this stage concerned the numerical values and cut-off points used to characterise each segment for each data dimension. What level of transaction frequency, for instance, should be taken as implying a frequent user and what level as implying an infrequent user? An informed approach to this was taken by one case, who reverse-engineered this part of the process. In this case, they selected customers that were known personally to the customer contact staff and whom they believed fitted closely into each segment. The data parameters for each segment were then set, based on the typical values for those representative customers. This suggests a potentially valuable way to connect market research, particularly of an in-depth, qualitative type, with CRM data. Hence market segments uncovered by market research can be used as models of CRM proxy data.

The second and most important insight gained at this stage was the nature of data that was useful in segment characterisation. It was clear that, in addition to data quality (the veracity and "freshness" of the data) , data length (the length of time data existed for the customers in question) and the data depth (the number of transactions recorded) were important to ensure that the data was representative and not unduly influenced by seasonal or other anomalous fluctuations. However, a third property of the data emerged as critical to enabling segment validation, one that can be described as data breadth. This is the breadth of transaction types recorded, in terms of their capacity to infer customer motivations and in particular differentiating customer motivations. For example, two data sets might have equal quality, length and depth, but the set which includes a greater variety of transaction types and of transactions that imply motivations (for instance in product selection or channel use) is of greater value in inferring segmentation. This is a significant qualification, since the focus or divisionalisation of many companies has had the unintended effect of reducing their data breadth and data protection considerations reinforce this restriction.

5.4.3. Results of Segment Analysis

The third part of the research involved asking each of the case companies to analyse their own data according to the motivational segmentation and data proxies identified. Naturally, the effectiveness of this part of the research was circumscribed by the level of success obtained in the first two parts of the research. Notwithstanding that, most of the companies involved in the research were able to identify quantified patterns of customer distribution corresponding to the segments identified using the Herzberg theory. On the positive side, this implied strongly that the motivational segmentation approach was useful as a method of improving the value of CRM analytics. Counter to that, many companies were practically incapable of carrying out the segmentation within their current CRM structures.

The most important insight gained in this part of the research was that, as the theory would predict, the motivations were unevenly distributed amongst the customer samples analysed. The result of this non-normal distribution, when combined into two or more orthogonal (that is, unrelated) motivations is the formation of discreet and distinct true segments, each of which ought to respond to different value propositions and represent differentially valuable opportunities for value creation. The second insight gained was that the differently sized segments imply differential value when a process of portfolio analysis is applied. Hence the Herzberg based approach seems to imply an approach to CRM analytics that is value creating both in terms of identifying valuable segments and in terms of more informed resource allocation.

The CRM analytics phase of the research, and the insights gained from it, represent both a development of the intuitive practice and the application of fundamental theory. It reveals a process for identifying value from data that, within the limits of this research, works with real companies and real data. Further, the technique fits well with already proven techniques of strategic marketing planning. However, the technique does have practical limitations inherent in the data sources commonly maintained by CRM systems. Generally, it would appear that the data collected by CRM systems is descriptive and transactional in nature and data selection is partly determined by either historical inertia or the operational needs of the business. In other words, the data collected and available is not designed for motivationally based segmentation. To use the description introduced above, it is often lacking in data breadth, representing a history of long and often deep data but of limited breadth. As a result, the value adding potential of adopting a motivationally based segmentation approach and implementing it via CRM analytics is not currently available to some companies as a result of their current data collection regimes. The implications of this and the findings of the other two research areas, for practising managers are discussed in the following section.

6. Implications for practitioners

The findings of this work have a number of implications for practitioners seeking to improve their implementation of CRM systems. Although the structure of the work lends itself to presenting these implications under the headings of the three research areas, they are of course closely related and any separation of the findings is, to a degree, artificial.

6.1. Organisational Implications

All of the cases observed seemed to implement CRM with the traditional, functionally based, organisational structure, overlaid with a cross-functional team. As a result, it is not possible to compare the effectiveness of this approach with a more radical structure, such a complete organisational rearrangement. However, it seems unlikely that such an approach would justify the likely costs that would flow, both directly and indirectly, from such a radical reorganisation.

Hence the main value in these findings for practitioner lies in how it informs the management of cross-functional teams. This work implies that CRM organisation can be deliberated managed in terms of two factors:

a) **Project lifecycle**
As the waterfall metaphor relates, CRM teams should be modified as the project progresses. Both level of management involvement and breadth of functional involvement should be adapted to suit strategic definition, project building and project execution phases of the project. Similarly, the timing of vendor involvement and the use of project managers to “channel” the project are important.

b) **Cross functional management**
The particularly cross functional nature of CRM carries with it risks and difficulties different or of a greater magnitude than more siloed projects of similar scale. Managing this by team member selection, task delimitation, dedicated resource and political lubrication seems especially important and these four factors provide a useful checklist for managing such teams.

6.2. Justification Implications

The findings of this work suggest both general and specific implications for practitioners. The first, general conclusion is that in neither the literature searching nor in the companies studied was there evidence of a comprehensive and convincing CRM justification based solely, or even largely, on financial grounds. Indeed, the opposite was commonly observed; companies set out to make financial cases and fell back to non-financial cases with accounting “sanity checks”. This implies that attempts to “prove” the cost effectiveness of CRM investment are misguided, a search for a holy grail that is as wasteful as it is fruitless. This is completely in line with the vast body of research that attempts to correlate single business processes (e.g. strategic planning) with organisational end results.

The specific findings of this work do, however, suggest a process for examining CRM investment in such a way as to gain approval, develop buy-in and establish controls. On the basis of this research, companies are advised to develop a business case that is specific to the needs of the organisation. This case should include financial benefits (both cost saving and revenue projections), but also recognise strategic imperatives and linked decisions. The final case, a mixture of these three factors, is likely to address the organisation's needs better than a purely financial case built on assumptions of unproven validity.

6.3. Analytics Implications

This work has both positive and negative implications for practitioners interested in improving their CRM analytical process. On the positive side, Herzberg's explanation of motivations and their application to segmentation do appear to work. In all of the cases tested, motivationally based segments did seem to be both applicable and useful. In many cases, it was possible to characterise these segments and the customers within them. This work therefore implies that a motivationally based segmentation approach would direct and support CRM analytics in a manner that is both more effective and more transparent than current approaches.

On the negative side, this work suggests a new type of limitation to many companies' CRM efforts. It would suggest that real value is best added when data is fully three dimensional in length, depth and breadth. In many cases, this is not true and, in particular, data breadth (the variety of types of data available to imply motivational variations) is seen to be a limiting factor in this work. This implies several possible causes of corrective action such as supplemental market research, widening transactional data collection, strategically broadening product ranges and pooling of data in strategic alliances. Each of these, of course, has its practical and legal limitations.

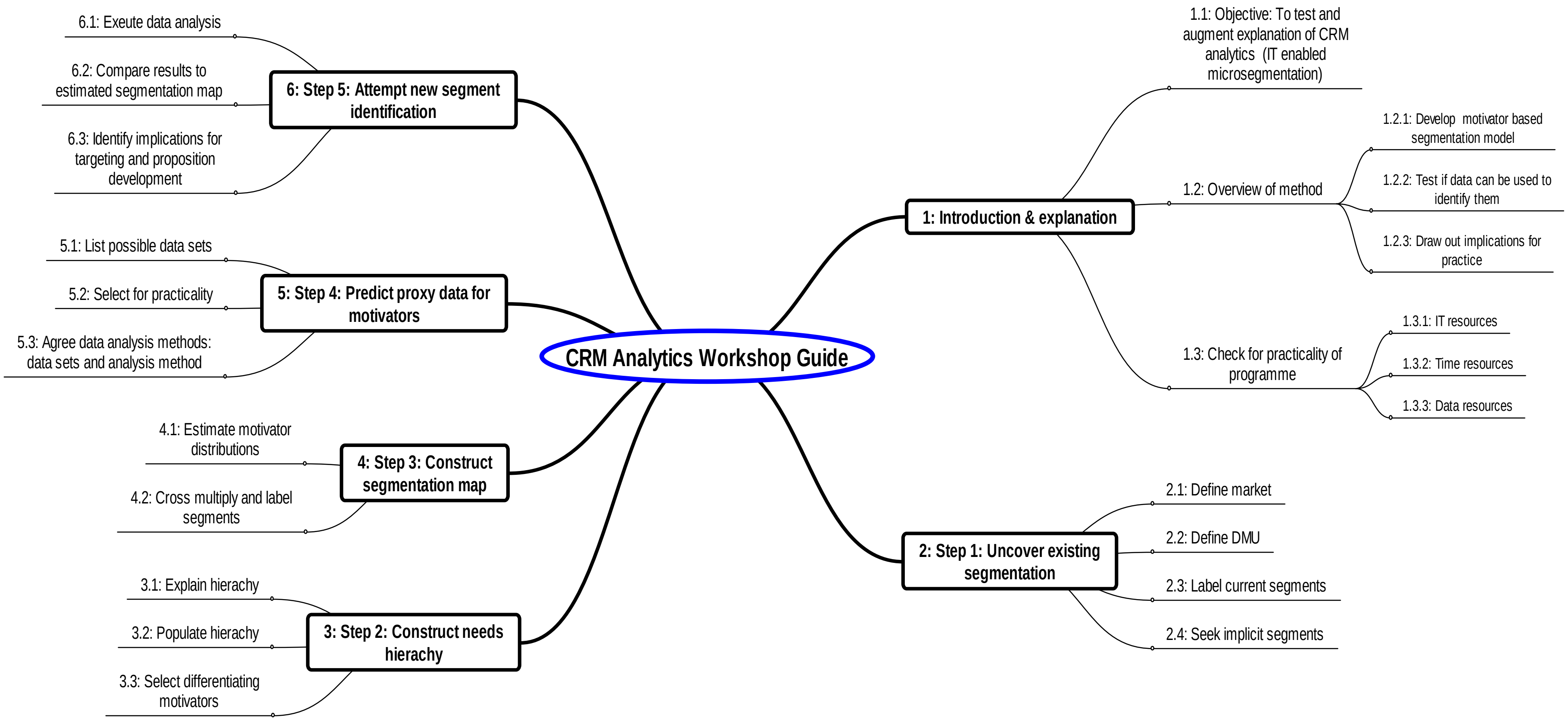
7. Possibilities for Further Work

Each of these three areas of work suggests further questions and research programmes. CRM organisation would be improved by better understanding of boundary spanning skills, political lubrication and the cultural context of each. CRM justification would benefit from large scale studies gathering examples of both cost savings and revenue effects. CRM analytics would benefit from a more through understanding of motivation differentials in different markets.

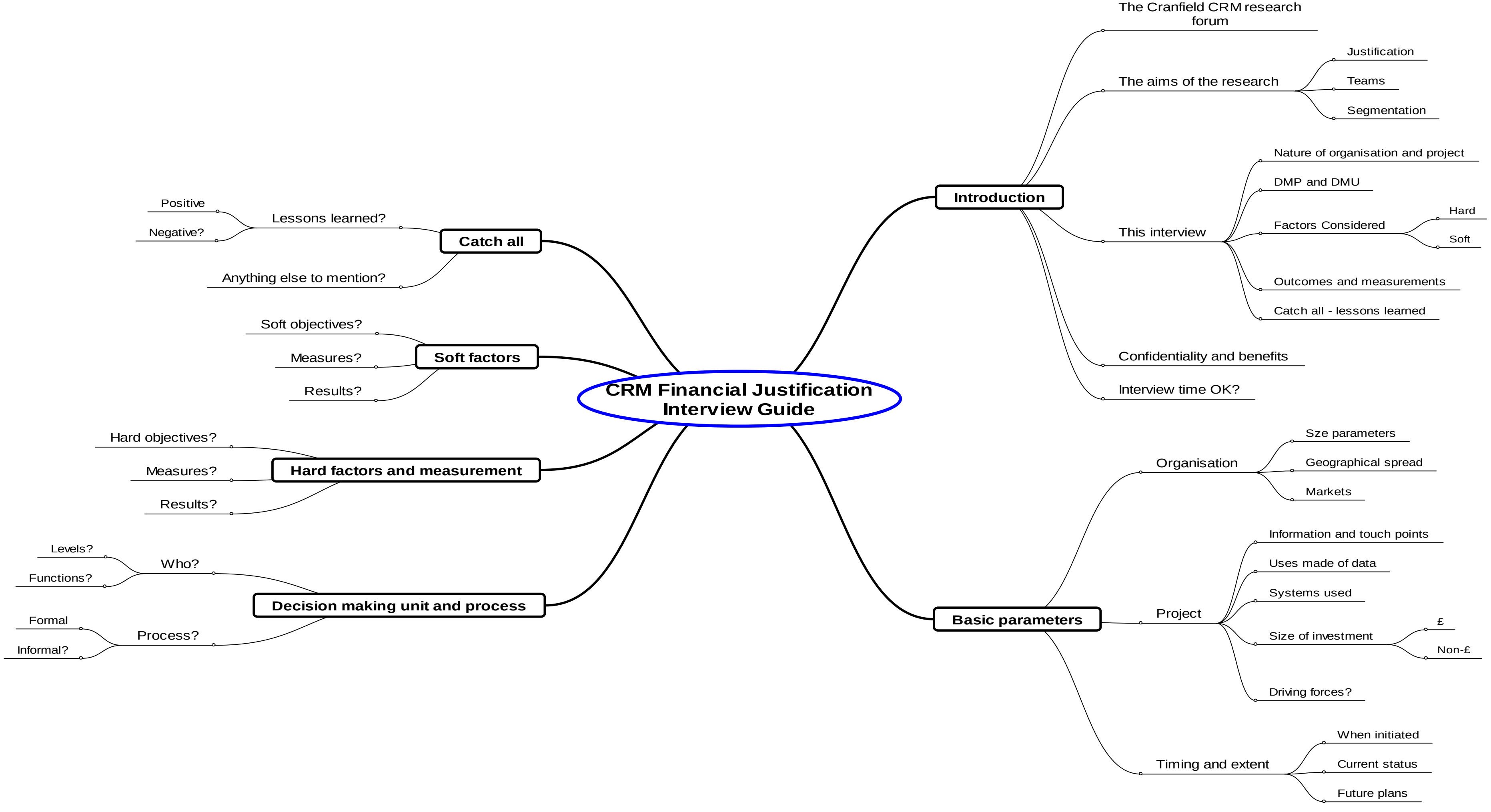
Each of these areas has methodological challenges and is of different value to different practitioners. However, a synthesis of the three might provide something that is of broad value and is methodologically practical. This would involve the application of CRM, using motivationally based segments, to a small number of cases and examining in-depth, the value implications of this. There are numerous practical difficulties associated with this, not least the definition and measurement of value. However, precedents exist for this in the strategy literature and the value of understanding worked examples of CRM application would be great for both academics and practitioners.

8. Appendices

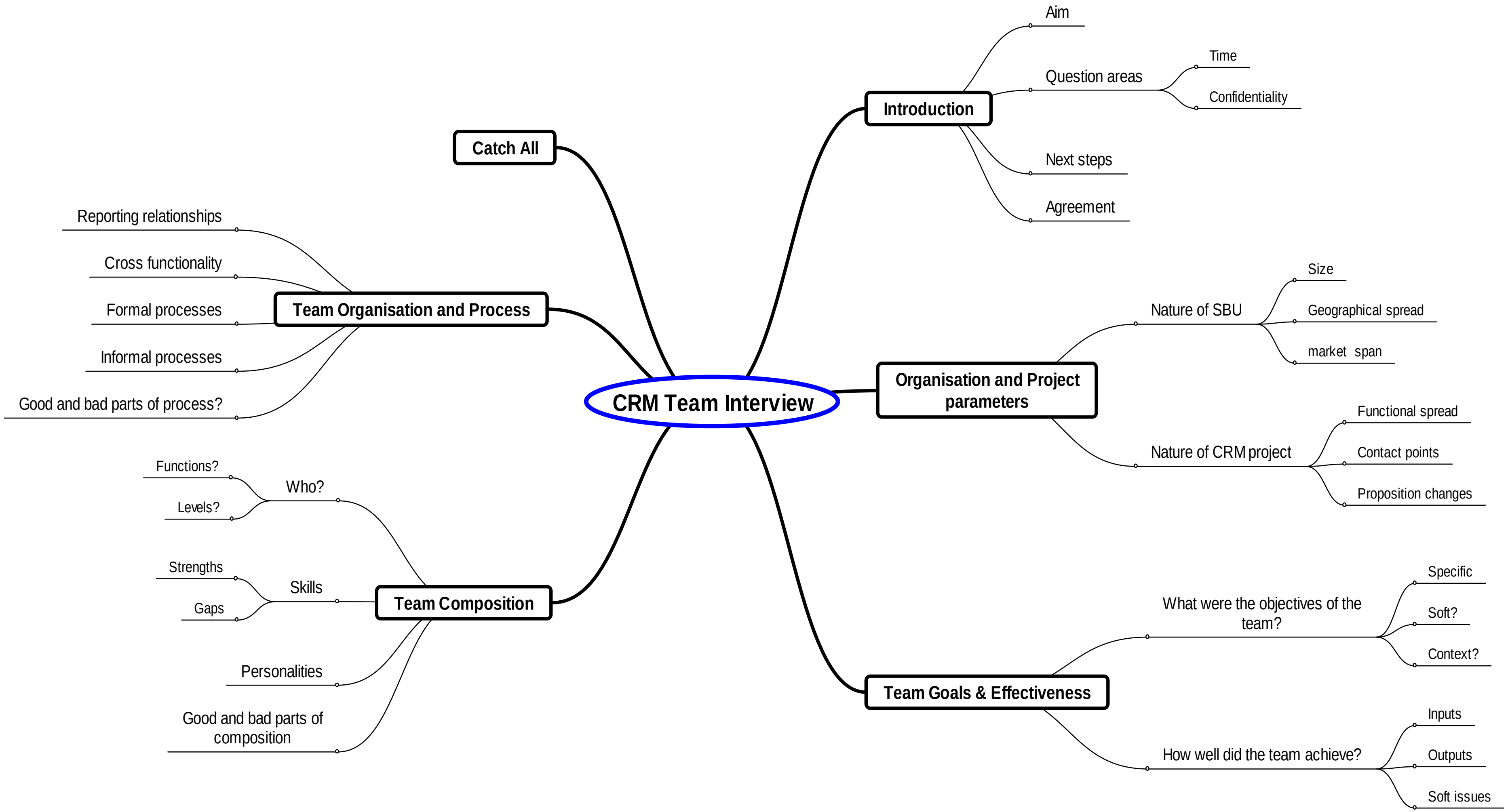
8.1. Mind map for CRM Analytics Workshops



8.2. Mind Map for CRM Justification Interviews



8.3. Mind Map for CRM Organisation Interviews



9. References

Andrews, R. L. & Currim, I. S. (2003), "Recovering and Profiling the True Segmentation Structure in Markets: An Empirical Investigation", *International Journal of Research in Marketing*, vol. 20, pp. 177-192.

Beckett-Camarata, E. J., Camarata, M. R., & Barker, R. T. (1998), "Integrating internal and external customer relationships through relationship management: A strategic response to a changing global environment", *Journal of Business Research*, vol. 41, no. 1, pp. 71-81.

Bendapudi, N. & Leone, R. P. (2002), "Managing Business-to-Business Customer Relationships Following Key Contact Employee Turnover in a Vendor Firm", *Journal of Marketing*, vol. 66, pp. 83-101.

Bowman, C. & Ambrosini, V. (1997), "Using Single Respondents in Strategy Research", *British Journal of Management*, vol. 8, no. 2, pp. 119-131.

Bunderson, J. S. (2003), "Team Member Functional Background and Involvement in Management Teams: Direct Effects and the Moderating Role of Power Centralization", *Academy of Management Journal*, vol. 46, no. 4, pp. 458-474.

Clark, M., McDonald, M. H. B., & Smith, B. D. 2002, *Achieving Excellence in Customer Relationship Management: A report from the Cranfield Customer Relationship Management Research Forum*, Cranfield School of Management, Cranfield, United Kingdom.

Day, G. S. (2000), "Managing Market Relationships", *Journal of the Academy of Marketing Sciences*, vol. 28, no. 1, pp. 24-30.

Druskat, V. U. & Wheeler, J. V. (2003), "Managing from the Boundary: the Effective Leadership of Self-Managing Work Teams", *Academy of Management Journal*, vol. 46, no. 4, pp. 435-457.

Freytag, P. V. & Clarke, A. H. (2001), "Business to business market segmentation", *Industrial Marketing Management*, vol. 30, no. 6, pp. 473-486.

Furness, P. (2003), "Techniques for Customer Modelling in CRM", *Journal of Financial Services Marketing*, vol. 5, no. 4, pp. 293-307.

Goold, M. & Campbell, A. (2003), "Making Matrix Structures Work: Creating Clarity on Unit Roles and Responsibility", *European Management Journal*, vol. **21**, no. **3** , pp. 351-363.

Gordon, L. & Iyengar, R. J. (1996), "Return on Investment and Corporate Capital Expenditures: Empirical Evidence", *Journal of Accounting and Public Policy*, vol. 15, pp. 305-325.

Gummeson, E. (1998), "Implementation Requires a Relationship Marketing Paradigm", *Journal of the Academy of Marketing Sciences*, vol. 26, no. 3, pp. 242-249.

Helfert, G. & Vith, K. (1999), "Relationship Marketing Teams: Improving the Utilization of Customer Relationship Potentials Through High Design Team Quality", *Industrial Marketing Management*, vol. 28, pp. 553-564.

Herzberg, F., Mausner, B., & Snyderman, B. (1959), *The Motivation to Work* John Wiley, New York.

Hickson, D. J., Butler, R., Cray, D., Mallory, G., & Wilson, D. (1986), *Top Decisions: Strategic Decision Making in Organisations* Jossey-Bass, San Francisco, CA.

Hitt, M. T. & Tyler, B. B. (1991), "Strategic Decision Models: Integrating Different Perspectives", *Strategic Management Journal*, vol. 12, pp. 327-351.

Kotler, P. (1991), *Marketing Management: Analysis, Planning and Control*, 7th edn, Prentice-Hall International, London.

Langley A (1990), "Patterns in the Use of Formal Analysis in Strategic Decision", *Organization Studies*, vol. 11, no. 1, pp. 19-48.

Lindblom, C. E. (1959), "The Science of Muddling Through", *Public Administration Review*, vol. 19, no. 2, pp. 79-88.

Maklan, S., Knox, S., & Ryals, L. Building the Case for CRM Investments. (2003).
Ref Type: Unpublished Work

Martinsons, M. G. & Chong, P. K. C. (1999), "The Influence of Human Factors and Specialist Involvement on Information Systems Success", *Human Relations*, vol. 52, no. 1, pp. 123-152.

Maslow, A. H. (1943), "A Theory of Human Motivation", *Psychollogical Review*, vol. 50, pp. 370-396.

McDonald, M. H. B. (2002), *Marketing Plans: How to Prepare Them, How to Use Them*, 5th edn, Butterworth Heinemann.

Mintzberg, H., Raisinghani, D., & Theoret, A. (1976), "The Structure of Unstructured Decision Making Processes", *Administrative Science Quarterly*, vol. 21, no. 2, pp. 246-275.

Mitchell, V. W. (1996), "Questioning the Role of Descriptor Variables on Market Segmentation", *Journal of Targeting, Measurement and Analysis in Marketing*, vol. 5, no. 2, pp. 95-103.

Moller, K. & Rajala, A. (1999), "Organizing Marketing in Industrial Hig-Tech Firms: The Roles of Internal Marketing Relationships", *Industrial Marketing Management*, vol. 28, pp. 521-525.

Narayanan, V. G. & Brem, L. (2002), "Case Study: Customer Profitabilty and Customer Relationship Management at RBC Financial Group", *Journal of Interactive Marketing*, vol. 16, no. 3, pp. 76-98.

Peppard, J. & Ward, J, Information Systems Research Centre Working Paper (2003). School of Management, Cranfield University.

Quinn, J. B. (1980), *Strategies for Change: Logical Incrementalism* Irwin, Homewood:Ill.

Rust, R. T., Zeithaml, V. A., & Lemon, K. N. (2000), "Driving Customer Equity, How Customer Lifetime Value is Reshaping Corporate Strategy", *Long Range Planning*, vol. 34, pp. 759-762.

Ryals, L. (2003), "Making Customers Pay: Managing and Measuring Customer Risk and Returns", *Journal of Strategic Marketing*, vol. 11, pp. 165-175.

Ryals, L. Total Customer Recognition: Integrated CRM at Wesleyan. (2001).
Ref Type: Unpublished Work

Ryals, L. & Knox, S. (2001), "Cross Functional Issues in The Implementation of Relationship Marketing Through Customer Relationship Management", *European Management Journal*, vol. 19, no. 5, pp. 534-542.

Schijns, J. M. C. & Schroder, G. J. (1996), "Segment Selection By Relationship Strength", *Journal of Direct Marketing*, vol. 10, no. 3, pp. 66-79.

Schwenk, C. R. (1995), "Strategic Decision Making", *Journal of Management*, vol. 21, no. 3, pp. 471-493.

Shaw, M., Subramaniam, C., Tan, G. W., & Welge, M. E. (2001), "Knowledge management and datamining for marketing", *Decision Support Systems*, vol. 31, pp. 127-137.

Shrivastava, P. & Grant, J. H. (1985), "Empirically Derived Models of Strategic Decision Making", *Strategic Management Journal*, vol. 6, no. 2, pp. 97-113.

Sinha, D. K. (1990), "The Contribution of Formal Planning to Decisions", *Strategic Management Journal*, vol. 6, pp. 479-492.

Smith, B. D. (2004), "Getting Motivated", *Marketing Business*.

Tapp, A. & Clowes, J. (2002), "From ``carefree casuals'' to``professional wanderers'': Segmentation Possibilities for football
Supporters", *Journal of Marketing*, vol. 36, no. 11/12, p. 1248.

Turchan, M. P. & Mateus, P. (2001), "The Value of Relationships", *Journal of Business Strategy*, vol. 2001, no. November/December, pp. 29-32.

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The Cranfield CRM Research Forum

The Cranfield CRM Research Forum was directed by Dr Moira Clark during the 2002 to 2005 period.

After her appointment to the chair of Strategic Marketing at Henley Management College, Moira created The Henley Centre for Customer Management to continue the work of the forum.

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Centre Contacts:

Director	Assistant Director	Customer Relationship Executive
Professor Moira Clark	Tony Harrington	Anne Tabbner
Tel: 01491 571494	Tel: 07815 938534	Tel: 01491 418710
Moira.Clark@henley.reading.ac.uk	Tony.Harrington@henley.reading.ac.uk	Anne.Tabbner@henley.reading.ac.uk

Henley Business School,
Greenlands, Henley-on-Thames, Oxfordshire RG9 3AU

This report was produced during 2003 when the Research Forum was directed by Dr Moira Clark in association with the Cranfield School of Management.

Maximising Value through Relationships