



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

University of Wollongong
Research Online

Faculty of Commerce - Papers (Archive)

Faculty of Business

2007

eCRM and managerial discretion

Tim Coltman

University of Wollongong, tcoltman@uow.edu.au

Sara Dolnicar

University of Wollongong, s.dolnicar@uq.edu.au

Publication Details

This article was originally published as: Coltman, T & Dolnicar, S, eCRM and managerial discretion, *International Journal of E-Business Research*, 2007, 3(2), 41-56.

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library:
research-pubs@uow.edu.au

eCRM and managerial discretion

Abstract

Most sectors of industry, commerce and government have reported variation in the performance payoff from electronic customer relationship management (eCRM). In this paper we build on a surprisingly sparse literature regarding the importance of managerial discretion, to show that the heterogeneity of beliefs held by managers about eCRM execution matter when explaining eCRM success. Drawing on a data sample comprising 50 interviews and 293 survey responses we utilise segmentation techniques to identify significant differences in managerial beliefs and then associate these belief segments with eCRM performance. Results indicate that (1) three distinct types of managers can be identified based on the heterogeneity of their eCRM beliefs: mindfully optimistic, mindfully realistic, and mindfully pessimistic. (2) Further, our results imply that there is far less homogeneity at the individual firm level than is normally assumed in the literature and that (3) heterogeneity in managerial beliefs is systematically associated with organisational performance. Finally, (4) these results serve to remind practitioners that eCRM performance is dependent upon the right balance between managerial optimism and realism.

Keywords

managerial discretion, eCRM, mindfulness

Disciplines

Business | Social and Behavioral Sciences

Publication Details

This article was originally published as: Coltman, T & Dolnicar, S, eCRM and managerial discretion, *International Journal of E-Business Research*, 2007, 3(2), 41-56.

eCRM and Managerial Discretion

Tim Coltman

University of Wollongong
NSW 2522 AUSTRALIA
+61 (2) 4221 3912 (phone)
+61 (2) 9313 7279 (fax)
tim_coltman@uow.edu.au

and

Sara Dolnicar

University of Wollongong
NSW 2522 AUSTRALIA
+61 (2) 4221 3862 (phone)
+61 (2) 9313 4210 (fax)
sara_dolnicar@uow.edu.au

eCRM and Managerial Discretion

Abstract

Most sectors of industry, commerce and government have reported variation in the performance payoff from electronic customer relationship management (eCRM). In this paper we build on a surprisingly sparse literature regarding the importance of managerial discretion, to show that the heterogeneity of beliefs held by managers about eCRM execution matter when explaining eCRM success. Drawing on a data sample comprising 50 interviews and 293 survey responses we utilise segmentation techniques to identify significant differences in managerial beliefs and then associate these belief segments with eCRM performance. Results indicate that (1) three distinct types of managers can be identified based on the heterogeneity of their eCRM beliefs: mindfully optimistic, mindfully realistic, and mindfully pessimistic. (2) Further, our results imply that there is far less homogeneity at the individual firm level than is normally assumed in the literature and that (3) heterogeneity in managerial beliefs is systematically associated with organisational performance. Finally, (4) these results serve to remind practitioners that eCRM performance is dependent upon the right balance between managerial optimism and realism.

Keywords: managerial discretion, eCRM, mindfulness

Introduction

A major focus of marketing theory and practice has attributed variation in the degree of business success to the importance of the customer and the competitive advantages associated with a *market orientation* (Rust et al. 2000). One view of market orientation defines it as the ability to systematically gather and analyse customer and competitor information, to share this market knowledge, and then to use this knowledge to guide strategy recognition, understanding, creation, selection, implementation and modification (Hunt & Morgan 1995). It should also come as no surprise that many marketers have turned to information technology—in particular customer relationship management (CRM)—as a way to support customer-oriented thinking, customer analysis and understanding.

Enthralled by possibilities to deliver rich information regarding buyer behaviour to sales representatives, corporate investment in CRM technology has grown at a compound annual rate of 54 percent (Forrester Research 2001). Reports of a positive link between CRM uptake and improved firm performance have been less encouraging. For example the Gartner Group, a research and advisory firm, claim that close to 50 percent of all CRM projects fail to meet expectations (*The Australian*, 8th July, 2003). Additionally, an InfoWorld survey of chief technology officers (InfoWorld 2001) found that close to 30 percent of chief technology officers said that CRM was one of the most “over hyped” technologies they had seen. A follow up survey of IT executives found that 43 percent of large companies that have deployed CRM still believe that it deserves the bad press (InfoWorld 2003).

In contrast to the above industry survey reports, the recent academic literature appears to confirm that CRM programs enhance firm performance. For instance, in a special section in the *Journal of Marketing* eight of the ten papers published—conducted in a wide variety of industry settings—came to this conclusion (Boulding et al. 2005). As a whole however, CRM

is a neglected area of research where “further efforts to address its mobilization and alignment are not only warranted but desperately needed” (Zablah et al. 2003, p. 116).

One of the problems with the way CRM and performance has been measured is that the term often means different things to different people, creating confusion and uncertainty. For example, in a series of interviews with executives, Payne and Frow (2005) found that to some, CRM meant direct mail, a loyalty scheme, help desk and call centre. Whereas, others envisioned a data warehouse, data mining, e-commerce solution or databases for sales force automation. To alleviate this problem we focus specifically on electronic customer relationship management (eCRM) programs as defined in a SAS Institute white paper (2000): “the creation of knowledge from process automation and the collection, synthesis and delivery of data derived from the Internet and information technology (IT) based interactions between the company and its customers/channel partners.” This definition captures two important aspects of eCRM: (1) IT infrastructure, and (2) e-intelligence capability. Modern IT such as relational databases, data warehousing, data mining and Internet delivery are a feature of eCRM programs that customise and enhance personal relationships with customer and suppliers. However, alone IT is an insufficient source of competitive advantage (Carr 2003). Rather, competitive advantages arise from the interpretation of data or what we refer to as “e-intelligence” in this study.¹

For many managers, eCRM creates an environment that is unfamiliar. Whenever decision makers face unfamiliar territory there is greater opportunity for managerial discretion to be seen as relevant and practically important to the final payoff. Hambrick and Finkelstein (1987) were the first to introduce and elaborate on the concept of managerial discretion as a

¹ In this study, *e-intelligence* is defined as the adding of intelligence to electronic data. It represents the creation of knowledge from the information flowing into the firm from its web-based and traditional systems. It allows companies to customize and enhance personalized relationships with customers and suppliers and improve the effectiveness and profitability of business processes and operations.

way to reconcile polar views about how much influence executives and senior managers have on organizational outcomes. Defined as the “latitude of action” their proposition was that senior decision makers vary widely in how much discretion they have. Managerial discretion is not only theoretically important in its own right, but, is also potentially important to the complex decision making that accompanies eCRM investment programs. Yet, it is by no means clear that modern managers always engage in a deliberate and considered way when addressing issues of whether, when and how to invest in IT programs (Swanson & Ramiller 1997; Swanson & Wang 2005).

In this paper we begin to explore this issue by investigating the effect of individual determinants of managerial discretion on organisational performance in the context of eCRM. In doing so, we extend present work in two directions: (1) we propose a new dimension of individual determinants of managerial discretion which have so far not been used, namely managerial beliefs. In this particular study, it is investigated whether managerial beliefs towards eCRM are associated with organisational performance; (2) we introduce heterogeneity into the discussion of individual determinants of managerial discretion. While accounting for heterogeneity among individuals is a common procedure in consumer behaviour studies, heterogeneity among managers with respect to individual determinants of managerial discretion has so far been neglected. We hypothesize that managers with different patterns of beliefs regarding eCRM can be identified and that segment membership is associated with eCRM performance.

The paper is structured as follows: first, we direct our attention towards the determinants of managerial discretion and the link to mindful (and mindless) behaviour. Next, we describe the empirical setting, along with a discussion of the sample and the clustering method used. Lastly, we discuss our results and offer suggestions to managers seeking to invest in eCRM programs.

Conceptual Foundations

Managerial discretion is a challenging field of research. As Hambrick and Finkelstein (1987) argue, discretion is determined by three sets of factors: (1) characteristics of an organization's environment, in particular its industry; (2) the degree to which the organization itself is amenable to execution and action; and (3) the degree to which the individual executive is able to envision a new course of action. Moreover, each of these categories holds multiple determinants of discretion, which do not necessarily co-vary (Hambrick & Abrahamson 1995). So, if a researcher wishes to empirically measure managerial discretion as it applies to eCRM programs, it is not clear how much weight should be given to environmental/industry factors posed by Hambrick and Finkelstein (1987), or organizational factors (Hannan & Freeman 1977) or individual forces (Swanson & Ramiller 1997).

Environmental Determinants of Managerial Discretion

Environments afford managerial discretion in different ways with some supporting greater variety and change than others. In some environments managers have a wide array of potential courses of action to experiment with programs such as eCRM. In other environments, few options exist. Managers are literally constrained by external forces, or there is relatively little ambiguity in the business, so only a narrow range of options is plausible among the executive (Thompson 1967).

Hambrick and Finkelstein (1987) specified seven industry level factors that determine managerial discretion: (1) product differentiability; (2) market growth; (3) industry structure; (4) demand instability; (5) quasi-legal constraints; (6) powerful outside forces; and (7) capital intensity. In a follow up empirical investigation, Finkelstein and Hambrick (1990) used qualitative assessments to show that the top management team were strongly associated with

strategic persistence and conformity to industry norms in a low discretion industry (natural gas distribution) than was the case in a high discretion industry (computers).

However, this type of qualitative approach to assessing industry discretion is very limiting because it requires one to examine industries that are unambiguous in their degrees of discretion. In reality, this is rarely the case and industry discretion is not best thought of as a unitary construct (Hambrick & Abrahamson 1995).

Organizational Determinants of Managerial Discretion

Neo-institutional theory directs us to the “rules of the game” by which players, both individuals and organizations, interact in exchange ties, be they social or economic (Carson et al. 1999). From this perspective, “neo institutionalism” recognizes the importance of embedded organizational complexity (i.e., rules of the game) and argues that hypothetically ideal strategic orientations can be fundamentally flawed. Indeed, much has been written about the inertial tendencies of organisations and about how inertia precludes choice (Hannan & Freeman 1977; Tushman & Romanelli 1985). The major forces that are thought to create inertia, and in turn, reduce executive discretions include: (1) size; (2) age; (3) culture; (4) capital intensity; (5) resource availability; and (6) internal political conditions (Hambrick and Finkelstein 1987). This line of thinking is well developed by Carson et al (1999) who theorise that first best strategic orientations, are often fundamentally flawed and therefore, are not feasible alternatives.

It is generally argued, at least among population ecology and institutional scholars, that environment and organisation characteristics generally inhibit an organisation’s ability to consider change and therefore limit the extent of managerial discretion. However, managerial

discretion is not just influenced by environmental and organizational factors, but by the executive himself or herself.

Individual Determinants of Managerial Discretion

By virtue of their personal characteristics, executives and senior managers differ in the degree to which they generate and consider different investment programs (Hambrick and Finkelstein 1987). The relevant characteristics previously examined include: (1) aspiration levels; (2) level of commitment; (3) tolerance of ambiguity; (4) cognitive complexity; (6) political acumen; and (7) location of power base. This work has largely been driven by a vision of decision making that is drawn from the logic of appropriateness based on organizational rules and practices (March 1991).

An interesting twist to the research on individual discretion is the reality that because most managers are highly optimistic most of the time, there is a tendency to take unnecessary risks. Although this over optimism can be traced to many sources, one of the most powerful is the tendency by individuals to exaggerate their own talents—to believe that they are above average in their ability to implement change programs (Lavallo 2004). Furthermore, bandwaging behaviour of the “me too” variety where individuals seek to replicate moves by competitors has also been shown to motivate prior investment in innovation (Abrahamson 1991).

One of the most consistent findings emerging from organizational decision research is that people have very little time for problem solving and when they do undertake these activities they tend to display considerable irrationality (Brunsson 1985). They make inferential errors, create myths to account for uncertainty, and are resistant to feedback (March, 1994). In other words, scant reasoning may characterize IT related investments such as eCRM

programs—with subsequent implications for firm performance. We see evidence of this in the work by Swanson and Ramiller (2005) where they suggest that “mindless” behaviour tends to characterise IT investment decisions.

Mindful and Mindless Behaviour

Mindful and mindless behaviour is a way of working that is grounded in the minds of participating individuals (managers) through a process of heedful interrelating (Weick & Roberts 1993). In the case of eCRM investment decisions, heedful interrelating arises as managers interpret and act upon a model of a changing environment and organizational situation: how they gather information; how they perceive the world around them; and whether they are able to change their perspective to reflect the situation at hand (Langer 1989).

At an individual level, mindfulness focuses on the ability to continuously create and use new categories in perception and interpretation of the world (Langer 1997, p4.). It requires the decision maker to be involved in noticing more and catching unexpected events early in their development. In contrast, mindless behaviour involves routine use of pre-existing categorisation schemes. Mindlessness is not noticing, being on automatic pilot, applying recipes, imposing old categories to classify what is seen, acting with rigidity, and mislabelling unfamiliar new contexts as old familiar contexts (Seiling & Hinrichs 2005). In other words, manager’s that display mindless behaviour may go through the motions of problem analysis, but they are really not listening to what is going on and display a lack of awareness of self and one’s environment (Langer 1990; Weick, 2001).

Mindfulness and mindlessness draws from the “sensemaking” concept that has been shown to be critical in dynamic and turbulent environments (Weick 1993; Weick 1995). Sensemaking

is a process of social construction (Burger & Luckmann 1967) in which individuals attempt to interpret order and make retrospective sense of what is occurring. It allows people to deal with uncertainty and ambiguity by creating rational accounts of the world to support decision making and subsequent action (Maitlis 2005). Both uncertainty and ambiguity are likely to characterise eCRM programs that draw on potentially unreliable components. These components comprise IT infrastructure—databases, software and networks—and a diversity of stakeholders—executives and managers, frontline sales and business analysts, and IT professionals. Hence, the way in which individual executives and senior managers view eCRM using the concept of mindfulness and mindlessness can potentially provide an important measure of how organisations determine whether, when and how to invest in an eCRM program and the final success the company will enjoy from these programs.

Data

A stratified random sample of 2000 senior managers was purchased from a commercially available database. The sample included five industry groups: financial and business services (39 percent), government (20 percent), retail (11 percent), manufacturing (23 percent) and primary industries (7percent). This sample structure was chosen for two reasons: (1) to avoid a systematic bias of results by environmental and organizational determinants of managerial discretion, and (2) to improve the relevance and generalisability of our results. The questionnaire—developed on the basis of insight gained from 50 interviews conducted as part of the exploratory research phase of the study—was addressed to senior managers, with care taken to ensure respondent competency. The number of responses totalled 293 (giving an 18 percent response rate).

The mean and median sizes of the organisations included in this sample amounted to 2,480 and 650 employees respectively. Tests of the distribution of returned questionnaires relative to the sample indicated that no industry or size bias existed in the responses received.

To ensure the validity of our measures, we examined key informant bias, non-response bias, common method bias, dimensionality, and convergent and discriminant validity: senior managers were targeted from three functional areas (IT, marketing, and strategy), reducing the impact of *key informant bias*. Twenty-five percent of respondents indicated that they were not interested in completing the questionnaire, 10 percent said the survey was not applicable to their firm, and a further 20 percent cited a range of reasons why they did not complete the form (the questionnaire is too long, we receive too many of these questionnaires with little apparent benefit, and so on). Based on responses obtained from a short web-based form sent to all non-respondents, the risk of *non-response bias* was not considered to be high. To test for *common method bias*, we applied Harman's *ex post* one-factor test across the entire survey (Podsakoff & Organ 1986). Thirty-eight distinct factors were needed to explain 80 percent of the variance in the measures used, with the largest factor accounting for only 11 percent of the variance. Hence, there was no "general factor" in the data that would represent a common method bias.

The questionnaire contained general questions about the organisation and the position of the respondent within this organisation. In order to be able to investigate whether a systematic association between managerial beliefs regarding eCRM and overall e-business success can be determined, a set of eight questions was included that measures managerial belief about eCRM. For example, eCRM— if implemented— would: receive support by managers in other departments, face major technological constraints, or provide joint profit opportunity for the firm and customers.

In common with work in the information systems literature we adopt a broad

conceptualization of performance that captures financial and productivity measures (Kohli & Devaraj 2003). The financial performance measures include: improvement in market share, annual growth in revenue and increased total sales. The operational items reflect operational productivity across various strategic dimensions such as: the ability of e-business to offer new customer insights, to work faster and to produce highly integrated customer data.

Methodology

Heterogeneity of managerial beliefs (individual determinants of managerial discretion) was investigated by identifying groups of managers who share similar beliefs about eCRM. This was achieved by partitioning the responses of all 293 managers who have completed their questionnaires. Only five questions were included for the purpose of this study. Two main reasons led to the pre-selection of five items. First, the number of variables that can be used in clustering depends on the number of respondents: if a large number of items are used (the dimensionality of the data set is high), a sufficient sample size has to be available in order to be able to identify data patterns. Following the recommendation by Forman (1984) who states that a sample of at least 2^k is needed to segment the respondents on the basis of k binary variables; preferably $5 \cdot 2^k$ should be available. This limits the number of variables that can safely be used in our study to seven for the less and five for the stricter recommendations. Second, some of the eight variables had very low agreement levels. Following the recommendations by Frochot and Morrison (2000) a frequency criterion to variable selection was used: the three items with agreement levels of 17 percent or less were eliminated as they were not capturing a high amount of heterogeneity in beliefs.

The following five items consequently formed the segmentation base for the heterogeneity analysis:

1. “The customers and trading partners should recognize the opportunity for joint profit as a result of my business unit’s e-intelligence strategy”
2. “It is only a matter of time before full scale individual customization based on electronic data is a reality”
3. “My organisation has a high level of confidence concerning our ability to successfully implement a fully integrated e-intelligence strategy”
4. “The major constraint in implementing a future e-intelligence strategy will be organisational not technological.”
5. “e-intelligence systems are a way forward for bricks & mortar operations to gain a strategic advantage against e-business start-ups.”

The aim of the partitioning task is to identify a set of “belief segments” among the participating managers. Within each belief segment managers are as similar as possible to each other and as different as possible from managers assigned to other belief groups. The partitioning algorithm chosen for this task was a topology-representing network (Martinetz & Schulten 1994). This procedure was chosen because topology-representing networks outperformed alternative partitioning algorithms, including the most popular k-means clustering algorithm, in an extensive comparison by (Buchta et al. 1997) in which the performance of seven partitioning algorithms was evaluated using 11 artificially generated data sets with known structure. The topology-representing network algorithm, which is similar to the popular k-means algorithm but allows for neighbouring centroids to update after each iterative step, has proven to be most successful in identifying the correct data structure of the artificial data sets in the Buchta et al. (1997) Monte Carlo simulation study.

Topology-representing networks are self-organising neural networks that group the data points into a predefined number of clusters while simultaneously arranging those clusters to

topologically represent the similarities between the resulting attitudinal segments. This is achieved via an iterative process that includes the following steps: (1) the number of segments to be revealed (Frank et al. 1972; Myers & Tauber 1977) or constructed (Mazanec 1997; Wedel & Kamakura 1998) is defined beforehand, (2) starting vectors are picked at random, where the number of starting vectors is equal to the number of segments and dimensionality equals the number of managerial belief statements used as segmentation basis, (3) one case—this is the pattern of agreements and disagreements of each manager with respect to all five statements—is presented to the network, (4) one of the randomly selected starting vectors is determined to be closest to the presented manager's belief pattern based on distance computation. This closest starting vector is declared the “winner” and allowed to adapt its vector values towards the values of the assigned case to a predefined extent (“learning rate”). (5) In addition to this winner, one or more neighbours of the winner are allowed to adapt their vector values to a lower extent. This process ensures that the network not only learns to best represent the managers in the data by segments, but also that neighbourhood relations between the belief segments are mirrored in the final solution. Step (5) is the only difference between the popular k-means algorithm and the topology-representing network algorithm. This iterative and adaptive procedure is repeated numerous times for the entire data set with a decreasing learning rate. This means that rough sorting and adaptation of the random starting points takes place in the initial stages of the learning process, while the final iterations are essentially used to fine-tune the segmentation solution. After this learning phase—in which the network learns to best possibly represent the empirical data—a so-called recall run is performed in which all cases are presented to the network one more time without undertaking any more value adaptations. In this stage each manager is assigned to the group which represents his or her view best (this centroid group has the smallest distance to the belief vector of the manager).

Clearly, the decision as to how many starting vectors to choose defines the number of belief segments that will result from the analysis. The selection of the best number of starting vectors is therefore very crucial (Thorndike 1953) and to date no optimal solution for this problem has been developed. We use the criterion of stability to choose the number of starting points; in doing so we avoid the problem that any single computation of a clustering algorithm can potentially lead to a random solution. This procedure was proposed and successfully used by Dolnicar, Grabler & Mazanec (1999) in the context of the segmentation of tourists based on their destination images. Given that data partitioning is an iterative process with a random starting solution, each computation can potentially lead to a different solution. The more similar, or stable, segmentation solutions are over multiple runs of computations, the more reliable the solution. We choose the number of clusters that leads to the most reliable solution in the following way: topology representing network solutions with segment numbers ranging from 2 to 10 were computed. For each segment number, 50 repeated computations of the topology representing networks were computed (450 computations in total) and the stability of the resulting segmentation solutions was assessed. The three-segment solution emerged as the most stable. The results from the three-segment topology representing network partitioning are discussed in detail below.

It should be mentioned that partitioning or clustering data is a data analytic procedure that is of exploratory, not confirmatory nature. Given that (1) our research problem is to investigate heterogeneity among managers and assess whether any such heterogeneity is associated in a systematic and significant way with corporate eCRM performance, and (2) no theory exists to enable the formulation of a priori hypotheses for the belief segments and the nature of belief segments being associated with performance, confirmatory methods were not suitable for our study. However, stability tests were conducted to assure that the solution presented is not a random solution that occurred in one run of the algorithm only.

Furthermore, the resulting belief segments were validated using a series of other questions that were available from the survey, such as organisational resources and assets, environmental pressures and organisational performance etc. The underlying idea of this external validation is that belief segments should reflect organisational conditions. If this is not the case, one could argue that the beliefs managers hold with respect to eCRM are irrelevant as they are neither associated with organisational assets, environmental pressures and constraints, and not with organisational success. Five criteria were used to assess the external validity of the belief segments: environmental pressures, organisational assets, the level of eCRM implementation, operational implementation constraints and firm financial performance. Given the ordinal nature of these measures, we used Chi square tests based on cross tabulations. The resulting p-values were Bonferroni corrected to account for multiple testing on one data set and avoid overestimation of significant findings due to possible interaction effects not captured by the independent testing procedure.

Results

The results of partitioning managers according to their eCRM-related beliefs, which are used as indicators of the individual determinant of managerial discretion, leads to three segments of managers which differ significantly in their agreement with statements relating to eCRM in their organisation. The segment profiles depicted in Figures 1, 2 and 3 are used to describe the groups of managers that demonstrate the highest levels of homogeneity. Each figure shows the agreement percentage of managers within the segment as columns and the percentage of agreement in the entire sample as horizontal black bars. Segments are interpreted by comparing the segment profile with the profile of the total sample. Belief segments were interpreted in two stages. The first interpretation is provided in this section and focuses on a description of segments based solely on their responses to the segmentation variables only.

This first stage could be referred to as a purely empirical interpretation of segments. In the Discussion section the empirical segment profiles are interpreted in more detail, using the concept of mindfulness as well as the dimension of optimism versus pessimism as the interpretation basis.

Empirically, Segment 1 (which is depicted in Figure 1 and contains 32 percent of all respondents) is characterised by an optimistic attitude towards eCRM in terms of joint opportunities and strategic advantages over e-business start ups. Every single manager in this segment agrees that “The customers and trading partners should recognize the opportunity for joint profit as a result of my business unit’s e-intelligence strategy”. On the other hand, not a single member of this group believes that his/her organisation has a high level of confidence concerning our ability to successfully implement a fully integrated e-intelligence strategy.

This view is supported by the fact that three quarters of all managers of this segment attribute the lack of confidence to organisational constraints. As will be described below in detail, this belief segment is consequently referred to as the “mindfully optimistic” group: they have strong views about both the advantages of eCRM and the constraints of implementing it in their organisation, while at the same time seeing great potential in adopting eCRM measures.

<< Please insert Figure 1 here >>

Segment 2 (depicted in Figure 2 and containing 32 percent of all respondents) differs from the “mindfully optimistic” segment in their assessment of their confidence to be able to successfully implement eCRM in their organisation: every single respondent classified as a member of Segment 2 agrees with this statement. This is mirrored by a lower than average agreement level with the statement that organisational constraints will stand in the way of

successful implementation. Interestingly, however, this segment has a lower percentage of members who believe that customers and trading partners should recognize the joint profit opportunity of eCRM; they are slightly less optimistic regarding the strategic potential for eCRM. Most importantly the respondents in this segment believe that their organization has extensive experience dealing with eCRM related change and have in place capabilities and strategies to successfully implement complex IT applications. This segment is referred to as “mindfully realistic”: managers in this group express an informed view which is characterized by a cautious evaluation of the opportunities and a high level of confidence in the implementation capability.

<< Please insert Figure 2 here >>

Finally, managers assigned to Segment 3—and depicted in Figure 3—contain the largest proportion of managers: 36 percent of the sample. These managers do not see any great benefit in eCRM. There is a distinct lack of support regarding the potential for strategic and performance improvement. Further, there is a general lack of support for individual customization. This more modest view of eCRM is unlikely to provide sufficient incentive to lead to the changes in organisation, process, training and reward systems that eCRM demands. Indeed, there is little confidence that the organization can successfully implement eCRM even though the organizational constraints are not insurmountable. This segment is referred to as being “mindfully pessimistic”: managers in this group do not see much value in eCRM and—in addition to that—do not think they could successfully implement it in their organisation and would face organisational constraints in trying to do so.

<< Please insert Figure 3 here >>

Given this heterogeneity in managerial beliefs it is reasonable to assume that an association with organisation-level indicators could be detected. In order to assess whether this is indeed the case the segments selected were evaluated against variables other than the individual discretion variables used to generate the solutions above. While the segmentation analysis focused on the individual determinants of managerial discretion, the additional variables used for the external validation of segments (see Table 1) capture the environmental and organizational dimensions of managerial discretion (Hambrick and Finkelstein 1987). Table 1 contains the percentage of managers within each of the belief segments who either agree or strongly agree with the organisation—level statements in the first column of the table. As can be seen, organisations in Segment 2 face significantly higher environmental pressures and possess higher levels of organisational assets. Further, they have significantly higher experience in successfully implementing eCRM programs (28 percent of organisations as opposed to 15 percent in the case of both Segment 1 and segment 2 organisations). Perhaps not surprisingly, they also demonstrate significantly better results in terms of financial and operational performance.

These results confirm the importance of environmental and organisational measures in the determination of managerial discretion for managers in Segment 1, and to a lesser degree, managers in Segment 2. The results also confirm the importance of implementation constraints to Segment 1 and appear to suggest that managers in Segment 1 should have strong reservations about their ability to successfully execute eCRM. Interestingly, they also highlight the financial and operational performance differences, with Segment 2 leading the way on both measures.

<< *Please insert Table 1 here*>>

Discussion

Although an examination of the popular press indicates that managerial discretion is critical to organizational success and a general reading of the qualitative academic management literature would support this belief, almost all of our mainline empirical theories ignore executive beliefs and intentions except in the most superficial of ways (Finkelstein & Hambrick 1996). Furthermore, qualitative descriptions of the way executives and senior managers behave in organizations continues to show that they spend very little time on decision making or making choices—when they do undertake these activities they tend to display considerable irrationality (Brunnsen 1985).

As the data in this study suggests, considerable variance exists across the three elements of managerial discretion (i.e., environmental, organizational and individual) that have been conceptualised in our section titled “Conceptual Foundations”. Further, the individual dimension of managerial discretion is systematically and significantly associated with environmental and organizational determinants, indicating the concept of mindfulness plays a major role in managerial discretion and, consequently, corporate performance.

The attitudinal responses and background measures in Segment 1 imply that eCRM will be strategically important and is expected to deliver performance improvement. However, it is also widely acknowledged that it will be very difficult to integrate eCRM into core systems. These difficulties arise because of pressures for short term results that drive parochial interests and a lack of consensus across stakeholders in the organization. These results indicate that managers are “mindful” of the benefits and constraints. However, the poor performance by

companies in this sector across financial and operational measures suggests a degree of over optimism. We label the managers in this segment as *mindfully optimistic* to reflect an awareness of what is going on around them that is moderated by an inability to flawlessly execute. This view of marketing strategy is consistent with recent work by Nohria *et al* (2003) on the role of strategy versus implementation. According to Nohria it matters less which strategy is picked by a firm as long as implementation is achievable.

In common with managers in Segment 1 there is no shortage of belief about what is going on around them and the subsequent benefits of eCRM. This situation is characteristic of mindful behaviour and is beneficial because eCRM change requires companies to generate enthusiasm and create the motivation for change. The trick is to balance optimism with an ability to generate realistic assessments of whether this type of change is feasible. Companies in Segment 2 are the best performers (see Table 1 scores for both financial and operational performance) and the results in Figure 2 suggest that managers have a realistic appreciation for the likely benefits. We label the managers in this segment as *mindfully realistic* where managerial discretion is driven by actions and beliefs.

Lastly, in Segment 3, industry and organizational pressures act to limit managerial discretion and subsequent performance. The operational reality for decision makers in this segment is that their customers are likely to be at different states or levels of relationship development and consequently the opportunity for strategic benefit is low. The managers in this segment recognise that there is less of a market landscape into which they can attempt to “fit” an eCRM program. Although, operational constraints are not insurmountable the managers in this segment remain pessimistic about the value of eCRM given the expenses involved and the expected difficulty involved in integrating existing business processes. This fact was pointedly laid out by a financial manager from a firm in this segment: “I would say we’re in a maturity curve where we’ve gone from the crawling stage and now we’re just stumbling

around. I don't think anyone's really got it down pat.” We label the managers in this segment as *mindfully pessimistic*.

It should be noted at this point that no segment emerged that could be labelled as “mindless”. While this particular sample of managers did not reveal a mindless segment, it is likely that other samples – particularly such that include lower level managers – would lead to a belief segment that would indicate mindlessness as characterised by Seiling & Hinrichs (2005). Such managers are more unlikely to have a clear view on the potential of eCRM activities and/or not be in the position to judge the organisation's capability to implement such technology.

Managerial Implications

As businesses depend increasingly on information systems such as eCRM, it becomes important that managers come to grips with the complexity that accompanies imperfect technology (Sipior and Ward 1998), uncontrollable user behaviours (Orlikowski 1996) and dynamic environments (Mendelson and Pillai 1998). The conundrum for managers is that eCRM programs offer most benefit when integrated throughout the enterprise. Yet, in achieving new levels of eCRM integration managers must rely on unreliable components (human and technological) for reliable delivery of customer relationships and financial performance. This difficulty is rarely acknowledged and an important managerial implication from managerial discretion and mindfulness theory is that eCRM performance arises not from abstract strategies or plans, but rather from an ongoing focus on operational execution (Weick and Sutcliffe 2001).

In many organizations the extent to which they possess the capabilities to implement sophisticated marketing and operational change programs varies considerably. In some cases, their IT infrastructure, legacy customer databases, and the software to manipulate customer

data is simply not designed to support widely accessible customer data. In other cases, the diversity of stakeholders involved in a CRM program (e.g., frontline sales, business analysts, IT professionals and functional managers) creates accountability issues that can frustrate the organisational transformation necessary to support an eCRM strategy. This study has shown that the essence of good eCRM management appears to have more to do with the ability to act. To this point, it appears that managerial discretion is an important managerial skill that has been under emphasized in the literature.

Study Limitations

As any study, our research has limitations that qualify our findings and present opportunities for future research. Firstly, the cross-sectional design employed does not enable us to explore the role of managerial discretion over time. Although it is often argued that cross-sectional designs are justified in exploratory studies that seek to identify emerging theoretical perspectives, this does not escape the inability of this type of design to fully capture the complexity in eCRM which inherently assumes contact over a certain period of time before eCRM success translates into improved key performance indicators of organizations. Therefore, the results of this study should be viewed as preliminary evidence regarding the varying criteria of eCRM. This reinforces the now customary call for the use of longitudinal studies to corroborate cross-sectional findings.

The data collection approach deserves mention. First, performance was measured using subjective assessments relative to other businesses in the same industry. Potential reporting biases can exist when personal judgments are used to evaluate competitive positioning in an industry. Although research has shown that self reported performance data are generally reliable (e.g., Dess and Robinson 1984) and represent a valid way to operationalise financial performance (Dess & Robinson 1984; Fryxell & Wang 1994), caution needs to be exercised in interpreting our results. Ideally, we would wish to validate and complement such

measures with objective data on financial performance, together with various operational metrics that would better explain any excess rents. The ability to measure financial and operational dimensions more fully to eliminate potential biases would undoubtedly provide a richer depiction of e-business performance. Unfortunately such data is hard to obtain, partly because of the difficulty of extracting the data relevant to the business unit being studied from more aggregate corporate accounts, but also for reasons of commercial confidentiality.

Conclusion

Managerial discretion is a concept of great potential significance, both as a theoretical construct and as a practitioner tool to improve organisational phenomena such as eCRM. However, discretion is a multifaceted, highly abstract concept that, by its very nature, cannot be directly observed (Hambrick & Abrahamson 1995). What this means is that in environments such as eCRM where the linkages between actions and outcomes are often uncertain, the research design must be more explicit in an attempt to evaluate the role of managerial discretion and take into account heterogeneity in all dimensions of managerial discretion: individual, environmental and organizational. As noted by one manager in a large retail chain interviewed for the study, opinion matters and whose opinion is being voiced is not irrelevant!

Probably the biggest impediment so far has been serious doubts by the Managing Director in particular and other senior managers about the value of e-business. Some of them think this is really a flash in the pan, they spend a lot of money then find out it's just a passing phase and then why did we bother to spend all that money and waste all that time with it.

Our results show that managers hold very different views about the impact of eCRM programs on firm performance. It is easy therefore, to see that the payoff from seeing the world in the right way can be substantial. Marketing researchers have access to a suite of measurement techniques (e.g., discrete choice modelling) that can be used to model stated preferences and begin to better understand the role of managerial optimism, beliefs and judgment. This may shed new light on a source of valuable information as to why certain firms succeed while others fail.

References

- Abrahamson, E. 1991. Managerial Fads and Fashions: The Diffusion and Rejection of Innovations. *Academy of Management Review* **16**(3), 586-612.
- Boulding, W., R. Staelin, M. Ehret & W. Johnston. 2005. A Customer Relationship Management Roadmap: What is Known, Potential Pitfalls, and Where to Go. *Journal of Marketing* **69**(4), 155-166.
- Brunsson, N. 1985. *The Irrational Organization*. New York: John Wiley & Sons.
- Buchta, C., E. Dimitriadou, S. Dolnicar, F. Leisch & A. Weingessel. 1997. A Comparison of Several Cluster Algorithms on Artificial Binary Data Scenarios from Travel Market Segmentation. In *SFB Adaptive Information Systems and Modelling in Economics and Management Science*. Vienna.
- Burger, P. & T. Luckmann. 1967. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. London: Penguin Books.
- Carson, S.J., T.M. Devinney, G.R. Dowling & G. John. 1999. Understanding Institutional Designs Within Marketing Value Systems. *Journal of Marketing* **63**(Special Issue), 115-130.

- Dess, G.G. & R.B. Robinson. 1984. Measuring Organizational Performance: The Case of the Privately-Held Firm and Conglomerate Business Unit. *Strategic Management Journal* **5**, 265-273.
- Dolnicar, S., K. Grabler & J.A. Mazanec. 1999. A Tale of Three Cities: Perceptual Charting for Analyzing Destination Images. In *Consumer Psychology of Tourism, Hospitality and Leisure* (ed.) A. Woodside. New York: CAB International.
- Finkelstein, S. & D.C. Hambrick. 1990. Top-Management-Team Tenure and Organizational Outcomes: The Moderating Role of Managerial Discretion. *Admin Science Quarterly* **35**, 484-503.
- . 1996. *Strategic Leadership: Top Executives and their Effects on Organizations* (West's Strategic Management Series. St Paul; MN: Printwise.
- Frank, R.E., W.F. Massy & Y. Wind. 1972. *Market Segmentation*. Engelwood Cliff: Prentice-Hall.
- Formann, A.K. 1984. *Die Latent-Class-Analyse: Einführung in die Theorie und Anwendung*. Weinheim: Beltz.
- Frochot, Isabelle. 2005. A Benefit Segmentation of Tourists in Rural Areas: a Scottish Perspective. *Tourism Management* **26**(3), 335-346.
- Fryxell, G.E. & J. Wang. 1994. The Fortune Corporate "Reputation Index": Reputation for What? *Journal of Management* **20**(1), 1-14.
- Hambrick, D.C. & E. Abrahamson. 1995. Assessing Managerial Discretion Across Industries: A Multimethod Approach. *Academy of Management Journal* **38**(5), 1427-1441.

- Hambrick, D.C. & S. Finkelstein. 1987. Managerial Discretion: A Bridge Between Polar Views on Organizations. In *Research in Organizational Behavior* (eds) L.L. Cummings & M. Straw. Greenwich, CT: JAI Press.
- Hannan, M. & J. Freeman. 1977. The Population Ecology of Organizations. *American Journal of Sociology* **82**(4), 929-964.
- Hunt, S.D. & R.M. Morgan. 1995. The Comparative Advantage Theory of Competition. *Journal of Marketing* **59**(2), 1-15.
- InfoWorld. 2001. CTO Network Year-in-Review Survey.
- Kohli, R. and S. Devaraj (2003). Measuring Information Technology Payoff: A Meta Analysis of Structural Variables in Firm-Level Empirical Research, *Information Systems Research* **14**(2): 127–145.
- Langer, E. 1989. *Mindfulness*, Boston, MA: Addison Wesley.
- Maitlis, S. 2005. The Social Processes of Organizational Sensemaking. *Academy of Management Journal* **48**(1), 21-49.
- March, J.G. 1991. How Decisions Happen in Organizations. *Human-Computer Interaction* **6**(2), 95-117.
- Martinetz, T. & K. Schulten. 1994. Topology Representing Networks. *Neural Networks* **7**, 507-522.
- Mazanec, J. 1997. Segmenting City Tourists into Vacation Styles. In *International City Tourism - Analysis and Strategy* (ed.) J. Mazanec. London: Pinter.
- Mendelson, H., and R. Pillai. 1998. Clockspeed and Informational Response: Evidence from the Information Technology Industry. *Information Systems Research* **9**(4), 415-433.

- Myers, J.H. & E. Tauber. 1977. *Market Structure Analysis*. Chicago: American Marketing Association.
- Nohria, N., W. Joyce & B. Roberson. 2003. What Really Works. *Harvard Business Review* **81**(7), 42-50.
- Orlikowski, W. 1996. Improvising Organizational Transformation Over Time: A Situated Change Perspective. *Information Systems Research* **7**(1), 63-92.
- Payne, A. & P. Frow. 2005. A Strategic Framework for CRM. *Journal of Marketing* **69**(10), 167-176.
- Podsakoff, P. & D. Organ. 1986. Self Reports in Organizational Research: Problems and Prospects. *Journal of Management* **12**(4), 531-544.
- Rust, R.T., V.A. Zeithaml & K.N. Lemon. 2000. *Driving Customer Equity: How Customer Lifetime Value is Reshaping Corporate Strategy*. New York: The Free Press.
- Sipior, J.C. and B.T. Ward. 1998. Ethical Responsibility for Software Development. *Information Systems Management* **15**(2), 68-72.
- Swanson, E.B. & N.C. Ramiller. 1997. The Organizing Vision in Information Systems Innovation. *Organization Science* **8**(5), 458-474.
- Swanson, E.B. & P. Wang. 2005. Knowing Why and How to Innovate with Packaged Business Software. *Journal of Information Technology* **20**(1), 20-31.
- Thompson, J.D. 1967. *Organizations in Action*. New York: Mc Graw-Hill.
- Thorndike, R.L. 1953. Who Belongs in the Family? *Psychometrika* **18**, 267-276.
- Tushman, M.L. & E. Romanelli. 1985. Organization Evolution: A Metamorphiolic Model of Inertia and Reorientation. In *Research in Organizational Behavior* (eds) B. Straw & L.L. Cummings. Greenwich, CT: JAI Press.

- Wedel, M. & W. Kamakura. 1998. *Market Segmentation - Conceptual and Methodological Foundations*. Boston:: Kluwer Academic Publishers.
- Weick, K.E. 1993. The Collapse of Sensemaking in Organizations: The Mann Gulch Disaster. *Admin Science Quarterly* **38**, 628-652.
- . 1995. *Sensemaking in Organizations*. London: Sage Publications.
- Weick, K.E. & K.H. Roberts. 1993. Collective Mind in Organizations: Heedful Interrelating on Flight Decks. *Admin Science Quarterly* **38**.
- Weick, K.E. & K.H. Sutcliffe. 2001. *Managing the Unexpected: Assuring High Performance in an Age of Complexity*, San Francisco: Jessey Bass.
- Zablah, A.R., D.N. Bellenger & W.J. Johnston. 2003. Customer Relationship Management: An Explanation of Its Domain and Avenues for Future Inquiry. In *Relationship Marketing, Customer Relationship Management and Marketing Management: Co-Operation-Competition-Co-Evolution* (eds) M. Kleinaltenkamp & M. Ehret. Berlin: Freie Universitat Berlin.

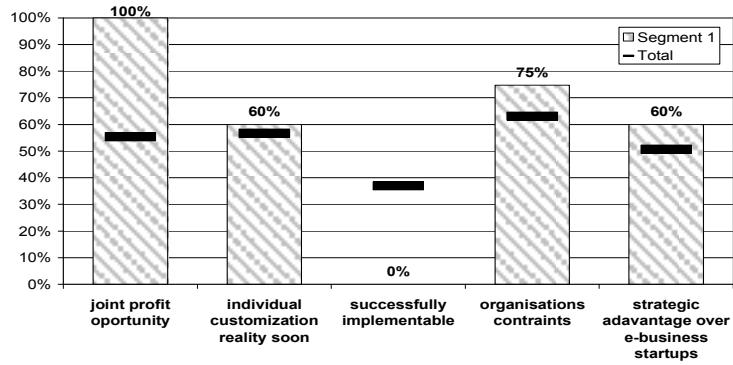


Figure 1 – Managerial Belief Segment 1 – Mindful optimists

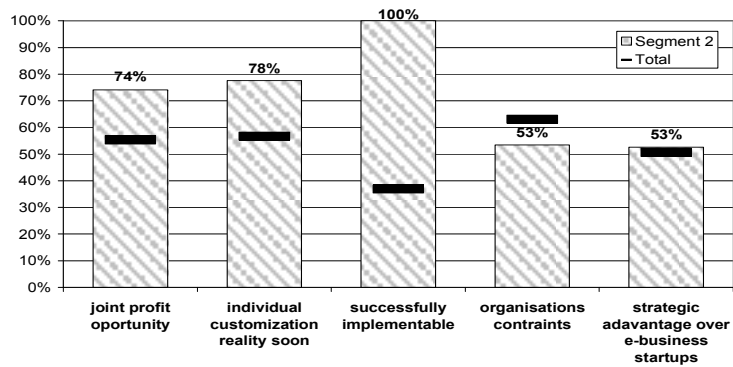


Figure 2 – Managerial Belief Segment 2 – Mindful realists

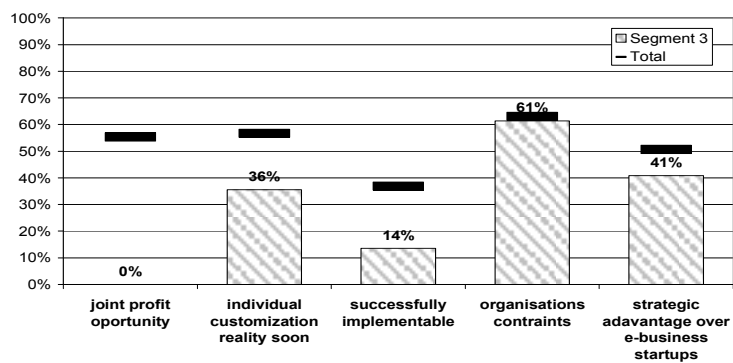


Figure 3 – Managerial Belief Segment 3 – Mindful pessimists

Table 1 – Background Variable Analysis

	Per cent by segment			p-value
	1	2	3	
<i>Environmental Pressures (agree/strongly agree):</i>				
Internet is improving competitive standing of the firm	30	52	24	<.01
eCRM has the ability to create new value for our major customers	51	73	37	<.01
Relationships with major customers would have suffered with eCRM	41	51	25	<.01
<i>Organizational Assets (agree/strongly agree):</i>				
Importance of customer relationship know how to firm	90	87	73	<.05
Staff understand the nature of interactive media such as eCRM	18	43	21	<.01
Real time updates of customer transactional data are a reality in our firm	22	45	27	<.02
<i>Level of e-CRM Implementation</i>				
Have successfully integrated eCRM into core systems	15	28	15	<.01
<i>Operational Implementation Constraints (agree/strongly agree):</i>				
Difficult pay only cursory attention to e-CRM because they are more concerned with areas generating immediate cash flow and profitability	70	34	56	<.01
When deciding among strategic alternatives, political influence & parochial interest play a crucial role	47	29	41	n.s.
Gaining consensus is a major hurdle in deciding on new business strategies	54	33	48	<.01
<i>Firm financial performance (agree/strongly agree):</i>				
Increased market share	4	16	6	<.03
Increased total sales (revenue turnover)	3	22	9	<.01
Annual growth in revenue	8	25	15	<.05
<i>Operational performance (agree/strongly agree):</i>				
Able to offer new insights into customer needs	35	60	31	<.01
Faster response to customer needs (agree/strongly agree)	66	79	52	<.01
Integrated customer data	30	48	27	<.02