

A Behavioural Approach to CRM Systems Evaluation

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Abstract: The literature on technology acceptance and emotions is reviewed in a bid to investigate the human aspects of CRM systems evaluation. Specifically it is argued that taking into account more intricate human dimensions in system evaluation might lead to a more comprehensive realisation of benefits for an organisation. A research agenda is scoped and presented alongside a conceptual, behaviours based evaluation framework for CRM systems. The intention is to add value to CRM evaluation exercises by providing organisations with a way of considering employee alignment with CRM IS in a bid to realise business benefits.

Keywords: CRM, IT evaluation, Behaviours, Emotions, Technology acceptance, Conceptual framework

1. Introduction

There has been a growing increase in the implementation of Customer relationship management information systems (CRM IS) within organisations to support a strategy of customer orientation. However, despite this growth in the CRM IS market, there is a mounting disenchantment with these systems, as anticipated benefits are not meeting initial expectations. Reasons for this failure are placed in various quarters, with some criticising vendor companies for over promising the business benefits possible from implementations of their software, and others stressing the naivety of organisations who have implemented CRM IS without a clear strategic initiative to support the endeavour. Regardless of the reason, there appears to be a lack of analysis regarding the underlying reasons for both positive and negative experiences post CRM IS implementation, particularly from the perspectives of both the employees and customers interacting with such technologies.

There is much evidence in the organisational, marketing and information systems success literature that external business results are linked closely to internal organisational factors. Consequently, the arguments start from the premise that the evaluation of external facing CRM IS requires a consideration of both internal and external factors if benefits are to be expected. However the research model goes further still. Organisational behaviour and social psychology literature points to the need to consider emotional aspects in the management of relationships, and the implementation of technology. Therefore it is argued that in any CRM IS evaluation framework, there is value in considering the

emotional perspectives of various actors (internal and external to the organisation).

2. The business problem

Relationship management is seen as an important organisational capability to develop and maintain (Kelly 1998; Peppers, Rogers et al. 1999) and whilst technology is not synonymous with relationship management, it is an important part of such initiatives, assisting in nurturing relationships (Fisher 2001), whether it be technology to enhance the relationship with customers, other firms, or internally (Kelly 1998). However, in the customer domain, all has not always run smoothly with many implementations of CRM not realising the expected business benefits (Fisher 2001; Patton 2001).

The perceived failure in CRM IS has also been discussed amongst a wide range of academic researchers (Peppers, Rogers et al. 1999; Patton 2001; Puschman and Alt 2001; Romano 2001; Cass and Lauer 2002; Goldenberg 2002; Kim, Gil-Hyung et al. 2002; McCalla, Ezingear et al. 2003). As such, a number of strands are beginning to emerge at conferences and in the literature, for example in the area of 'relationship' depth (Cass and Lauer 2002), critical success factors for CRM (Kim, Gil-Hyung et al. 2002) and the business objectives of CRM IS (McCalla, Ezingear et al. 2002; McCalla, Ezingear et al. 2003). If the ultimate goal of CRM initiatives is to maximise the long-term value of customer relationships, then encouraging customer satisfaction and ultimately customer loyalty is of consequence. Popular models such as the service profit chain (Heskett, Sasser Jr et al. 1997) argue that there is a link between the internal factors such as employee productivity and the external factors such as customer satisfaction. Clearly

then, CRM IS must assist the employee at the beginning of the service provision cycle in delivering value to the customer. Whilst the failure of CRM IS to meet expectations can be attributed to various factors, practitioners are emphasising that *“the people side of CRM is probably the most important part”* (Fisher 2001).

An important aspect of the popular “people” factor is that of expressed emotions. Pugh (2001) demonstrated empirically that we can understand service quality better through an extension of our understanding of the employee-customer encounter to consider emotional expression. Not only do factors such as employee productivity ultimately impact customer satisfaction (Heskett, Sasser Jr et al. 1997), but also employee’s expressed emotions (Pugh 2001). Consideration of the literature on emotion, shows that both strong positive and negative emotions have been linked to good and poor organisational performance respectively (Bagozzi, Gopinath et al. 1999; Dreu, West et al. 2001). It is now becoming widely accepted that adopting a CRM strategy requires transformation at an employee **behavioural level**, and that this can lead to the extremes of either higher levels of personal stress or exhilaration for employees (Pantazopoulos 2003). Further, Pugh’s (2001) research shows that such extremes can be transmitted to customers through a process termed *‘emotional contagion’* (where emotions are ‘caught’ by individuals from others).

The issues being highlighted here are concerned with the communication dynamics between employees and customers in the *‘service encounter’* (Bitner 1990; Bitner, Booms et al. 1990; Price, Arnould et al. 1995; Bitner, Brown et al. 2000). Price, Arnould and Deibler (1995) suggest that service encounters vary according to three factors: *temporal duration* of the encounter, its *emotional content* and the *spatial proximity* of the employee and customer involved. It is argued that any analysis of the service encounter will benefit from an assessment of these three dimensions. They also recognise that the emotional content of service encounters has been largely ignored in the service marketing literature (Mattila and Enz 2002). In an earlier study, Bitner et al (2000) argue that the service encounter is becoming more complex: whilst historically they have been characterised as *“high touch and low tech”*, this is changing with the growing emphasis being placed on technology to assist in the management of relationships. They go on to explain that there *“has been little*

scholarly research” investigating the change in dynamics through adding technology and what this means for employee-customer encounters.

In summary, in the discussion of the service profit chain (Heskett, Sasser Jr et al. 1997) we have claimed that customer satisfaction and ultimately loyalty are impacted by employee emotions, behaviours and productivity. Further, it has been argued that technology is and will continue to be pivotal in the facilitation of employee-customer encounters and that value can be gained from further researching the interplay between CRM IS, employee and customer emotions and perceptions of service quality. With the view that CRM systems are failing to deliver business benefits, this presents a business problem worthy of further investigation.

3. Theoretical perspectives

3.1 Considering the individual

There are two theoretical concepts that provide literature anchors at an individual level for the development of the research framework. Firstly the theory on technology acceptance and secondly the theory on emotional expression. The following provides a discussion of the concepts and their application to the research.

3.1.1 Technology acceptance

As a concept, technology acceptance has become synonymous with the ‘Technology Acceptance Model’ (TAM) (Davis 1986), which was developed to increase understanding and improve predictions of user acceptance of technology at an individual level and has been around for almost two decades (Davis 1986; Davis 1989; Chau 1996; Malhotra and Galletta 1999; Venkatesh and Davis 2000; Brown, Massey et al. 2002). . The theory has its routes in social psychology literature, specifically, Fishbein and Ajzen’s (1975) theory of reasoned action (TRA), which considers norms, beliefs and attitude important in understanding behavioural intention to perform an action.

The two key independent variables of perceived usefulness and perceived ease of use are said to influence the individual’s attitude towards using a technology, which has a subsequent impact on behavioural intention to use and ultimately actual use of the technology. The TAM has been upheld as a parsimonious model (Kishore, Lee et al. 2001; Hwang and Yi 2002). and whilst this is seen as a strength, it has also been referred to as its

weakness (Venkatesh and Davis 2000; Kishore, Lee et al. 2001). Perhaps the reduction of the technology acceptance problem to a few key variables is over simplistic and extensions to the TAM model (Moore and Benbasat 1991; Malhotra and Galletta 1999; Venkatesh and Davis 2000) have sought to further explain technology acceptance. Davis criticised his own model in conjunction with colleagues (Davis, Bagozzi et al. 1989) highlighting that the omission of the social psychology construct of 'subjective norm (SI)' from their TAM model was perhaps a limitation of the research.

Further extensions of TAM have shown that internalised behaviours appear to have a stronger influence over technology use than more cognitive constructs (Malhotra and Galletta 1999). Picard (1997) has also argued that *"it is impossible for a person to have a thought or perform an action without engaging, at least unconsciously, his or her emotional systems"*(cited in Brave and Nass 2003). The view is that whilst people make rational 'cognitive' based decisions at another level patterns of behaviour and underlying emotional systems have a stronger influence over the ultimate decision.

In addition to the complexity surrounding social influences and internalised behaviours, TAM also seems to have additional limitations. Consider the prevalent nature of CRM IS use in organisations. From an employees' perspective, CRM IS often take the form of mandatory systems that they must use in order to meet organisational and management requirements (Brown, Massey et al. 2002; Hess and Hightower 2002). The consideration of mandatory use of technology further complicates much discussion around traditional conceptualisation of technology acceptance in the literature, and alongside criticisms previously identified on a social and behavioural level, renders models such as TAM less useful in understanding the impact of mandatory technologies on individuals. Indeed, researchers have shown that the original TAM whilst parsimonious only explains around forty percent of technology use (Möbius 2002).

Traditional conceptualisations of individual's use of technologies have also been criticised by more interpretive studies, notably Lamb and King (2003). They argue that conceptualisations of the individual user are "socially thin" and they call for a shift in conceptualisation of individuals using technology from that of 'users' to 'social

actors'. They assert that this will enable a richer view of the multiple roles that individuals take on when they are *"adopting, adapting and using information systems"*. Intuitively this attempt to allow for a richer description of users and their interaction with technology seems to allow for a consideration of more emotional constructs whilst analysing the ways in which they engage with the technology. Consequently, whilst acknowledging the large background of literature on technology acceptance, there is a need to conceptualise the individual as a social actor and look towards a broader conceptualisation of the individual when assessing their interaction with CRM IS.

In summary, there is theoretical basis for adopting a broader conceptualisation of the individual that also investigates their social context when considering their use of mandatory technology and behavioural outcomes.

3.1.2 Emotional expression

The importance of understanding the social context has also been key to research into emotional expression in organisations. Emotional expression is defined here as emotional content (positive or negative emotion), intensity (strength of emotion) and diversity (channels of emotion e.g. tone of voice, body language etc.) (Rafaelli and Sutton 1989). The Rafaelli and Sutton (1989) framework of emotional expression, addresses social context as an important factor in influencing the emotions expressed. Social context is manifested here as social, occupational and organisational norms about what emotions are appropriate for employees to express. Both social context and characteristics of the individual are said to influence emotional expressions. However, the theory also argues that these influences are moderated by the degree to which the organisation tries to exert control over employees' discretion to display certain emotions. Where the employee can exert a high level of control over their own expression then they will always seek to do so. Rafaelli & Sutton (1989) go on to explain that little research has been conducted into measuring the control over discretion construct and that this is an area which warrants further research.

So far, the theory discussed has considered the interaction between individuals and technology and the importance of understanding emotional expression at an individual level. However, in section three of

the paper the importance of considering both internal and external factors was discussed, pointing towards a consideration of the customer in the analysis. Clearly, the relationship dimension also has important relevance here.

3.2 Considering the relationship context

3.2.1 *Technology and emotions*

It has been argued that technology-based interactions between individuals and organisations will become “a key criterion for long-term business success” (Meuter, Ostrom et al. 2000). Significantly, Parasuraman and Grewal (2000), recognise that there are consequences to the growing role of technology in relationships and called for further research into the manner in which technology interacts with the company, its employees and customers. Whilst we have acknowledged that the impact of technology on individuals has been discussed widely in the technology acceptance literature, it is argued that the idea of looking at the impact of technology on relationships is still relatively new (Parasuraman and Grewal 2000). It is imperative that the relationship dynamic is well understood in order to optimise the use of technology in relationship contexts. Kasper-Fuehrer and Ashkanasay (2001) explain that “technological changes can heighten interaction between individuals in terms of time, intensity, and emotions”. Whilst, we have already asserted that mandatory CRM IS may have emotional implications for employees, the additional context of technology-based service encounters may also have wider emotional repercussions.

There has been a call for more research to assist in understanding the causes and impacts of emotional expression (Rafaeli and Sutton 1989). It is argued that this is important because “expressed emotions may have potent effects on the behaviour, as well as the cognitions and attitudes, of people who are the targets of such expressions”. In a service encounter context, this means that employees

expressed emotions may have impacts on the perceptions of customers. This work was supported by Pugh (2001) in his research on emotional contagion. He emphasised that customers can catch emotions from employees, which can indeed impact their perceptions of a service experience and potentially their likelihood to repurchase. It is apparent from an examination of the IS success literature that service quality has emerged over the last decade as an important factor when considering IS success (DeLone and Ephraim 2003). It is therefore of concern that the theory associated with the emotion and service quality dynamic is poorly understood.

Later in 1993, Flan argued that there is “a serious analytical interest in emotions in general, and in the negative emotions in particular, is almost entirely missing in recent studies of work and organisational life” (cited in Domagalski 1999). Further at the end of the last century, the well-respected Internet discussion list on emotions named ‘EMONET’ (Emotions Network <http://www.uq.edu.au/emonet/>) summarised academic ‘calls for research’ on emotions. In a special edition of *The Journal of Organisational Behavior*, Fisher & Ashkanasay (2000) highlight the outcome of EMONET’s posting, with one of the areas identified being ‘the effects of displayed emotions on customers and clients’. It would appear that whilst there is recognition in the literature that emotional contagion is a reality, there is room for further research to investigate the consequences of emotional contagion on relationship outcomes

3.3 Summarising the theoretical trajectories

To summarise, technology has impacts at both individual level and relationship levels. A brief examination of the literature on technology acceptance and emotions has identified a number of theoretical trajectories, which can be considered in any new proposed evaluation framework. These are summarised in *figure 1*.

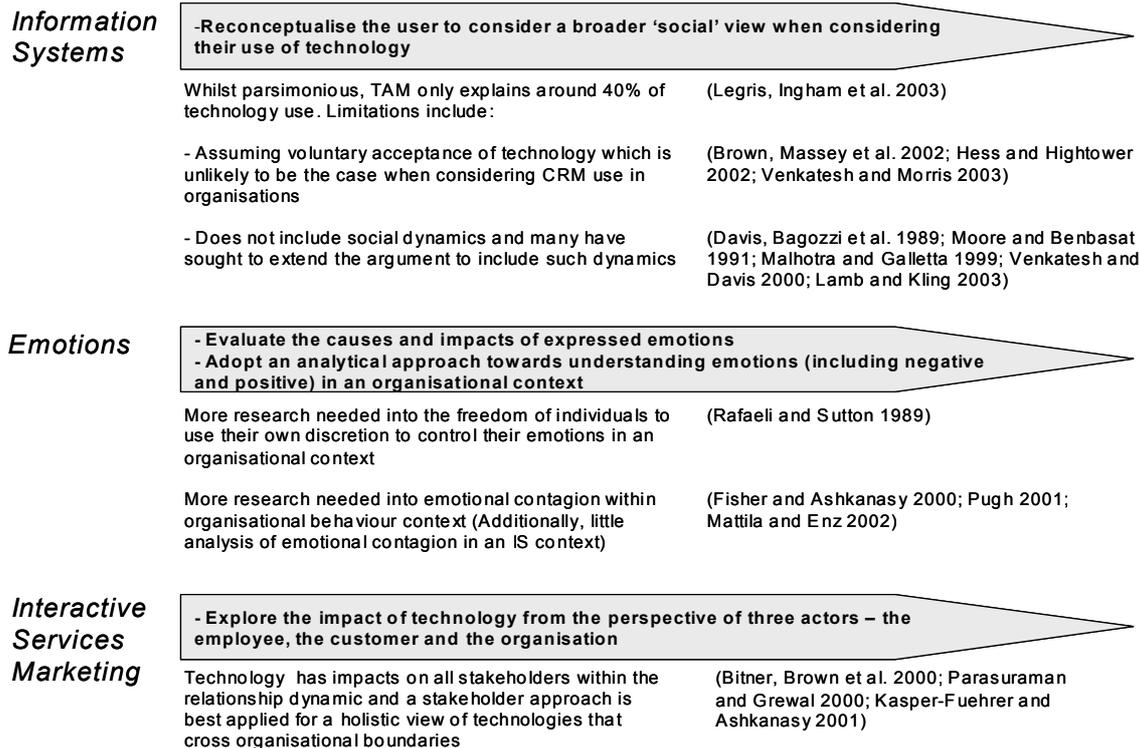


Figure 1: Summarising the theoretical trajectories and literature sources

4. Proposed evaluation framework

Considering these theoretical trajectories alongside the specific contextual business problem, has led to the articulation of a research agenda. *Figure 2* presents a graphical depiction of the scope of the resulting research agenda. The red dotted lines highlight the human and technical artefacts under investigation and position the service profit chain concept as an underlying framework guiding the analysis.

The interactive services marketing literature has emphasised the importance of a holistic view of technology used in the service encounter (Parasuraman and Grewal 2000), considering the impact of technology not just on one stakeholder within the service encounter but on the full complement of

stakeholders. The profile of *figure 2* as a conceptual model will no doubt echo for many the pyramid extension (Parasuraman 1996) of Kotler's (1994) triangle model of service marketing.

From the perspective of the CRM IS artefact, the model emphasises the central aspect of the research agenda. That is to understand the impact of CRM IS on the communication dynamic between the user and the service recipient; the customer. CRM IS can be said to mediate the interaction but in what manner? It can also be argued that mediation is not just at the point of interaction but that through its very existence, CRM IS mediates the organisational infrastructure which supports the delivery of service encounters.

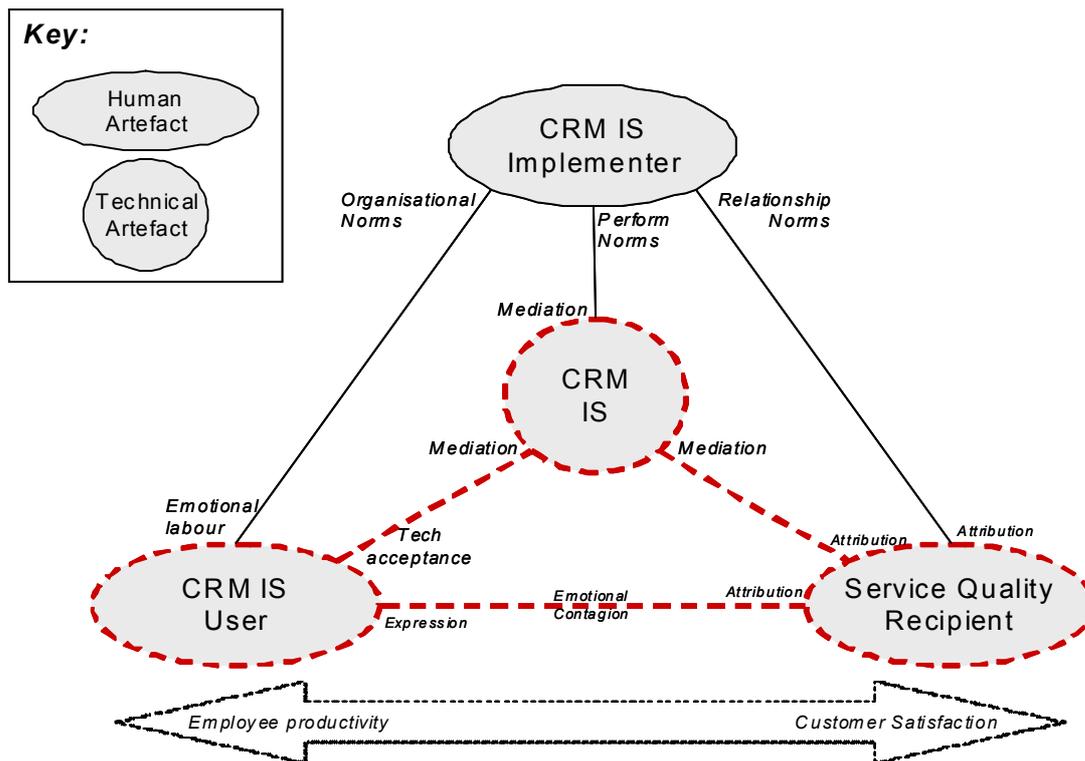


Figure 2: Scoping the research agenda - where theory meets practice

Considering the user perspective, CRM IS users are not just impacted by the technology, they also exert an opposing force of technology acceptance upon it, which can impact the success of CRM IS in delivering business benefits (DeLone and Ephraim 2003). Additionally, the user's experience with using CRM IS, may impact the communication dynamic through their positive or negative emotional expression. Many authors have written about the manner in which technology can enable or control employees (Bitner, Brown et al. 2000; Orlikowski and Barley 2001), and there is evidence to suggest in this literature, that technology, in this case CRM IS, may reinforce emotional labour pressures.

The **perspective of the customer** also reveals added considerations. Customers are not only impacted by the emotional expressions of users mediated by their use of CRM IS, they also express their own emotions during the service encounter. In addition, they form perceptions of service quality as a result and exert their power through attribution of good or bad service quality. The research agenda highlights that this attribution may be directed towards any one or combination of the various human and technical artefacts they interact with.

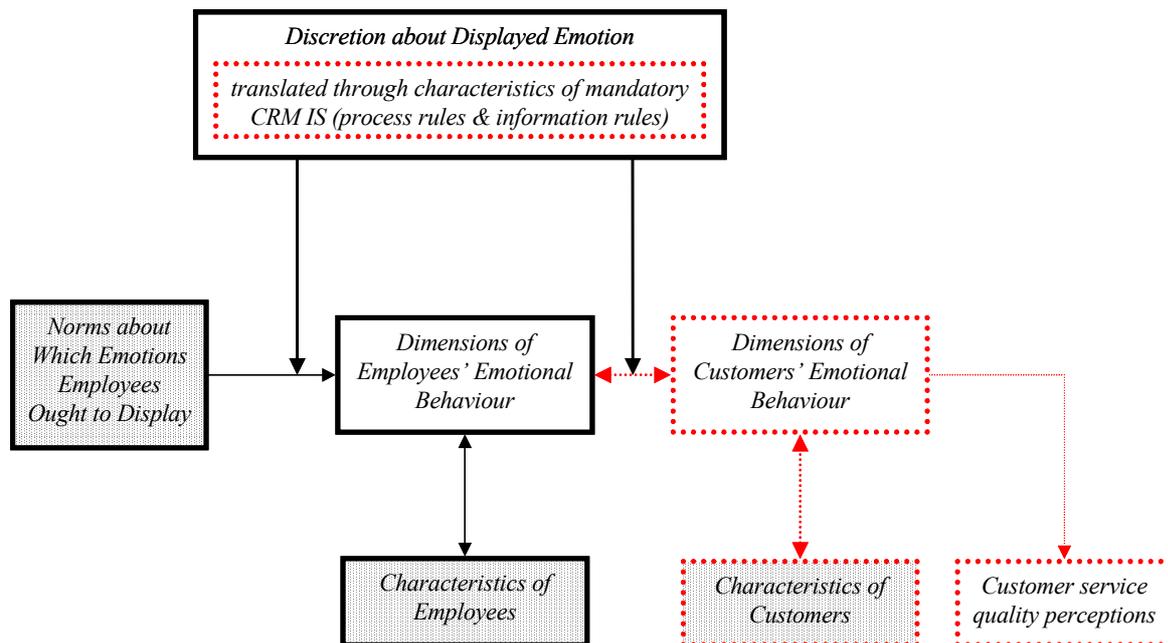
From the **perspective of the management team** who oversee the implementation of CRM IS, they have norms about the appropriate procedures, performance and behaviours to display. The research agenda upholds that these norms may be enacted through various connections with both technology and human artefacts.

Overall, the research agenda is focused on an examination of the CRM IS, user, service quality recipient dynamic. However, in order to take into account a broader conceptualisation of the user (Lamb and Kling 2003; Legris, Ingham et al. 2003), a wider, organisational and contextual context is important here. Therefore the research will consider those contextual aspects, which impinge and have influence on the specific dynamic under investigation. Building on this scope, a proposed behaviours-based evaluation framework is proposed and presented in figure 3.

Essentially this is a further conceptualisation of the Rafaelli and Sutton (1989) framework of emotional expression in organisational life (described in section 4.1.2), and seeks to provide a context within which CRM IS can be evaluated from a behaviours and emotions perspective. The dotted lines emphasise the additions made to Rafaelli and Sutton's (1989)

original framework, and the shaded areas represent the contextual factors that surround

the main area of study – the evaluation of the CRM IS



Basic model extended from: *Rafaeli & Sutton, 1989*
 original model ———
 revised components - - - - -

Figure 3: Proposed Evaluation Framework

Through the integrated stakeholder perspective, there is an opportunity to consider not only the emotional consequences of CRM IS on employees but also on customers. Further, there is the potential to improve the 'position' of disgruntled customers whilst adding value to CRM evaluation exercises by providing organisations with a mechanism for linking employee alignment with service quality perceptions and ultimately CRM benefits realisation.

The central focus of any evaluation of CRM IS using the proposed framework would be to understand the interplay between characteristics of the CRM IS, employee and customer emotional expressions and perceptions of service quality within a deeply contextual analysis of a service encounter process. Within each framework construct, the following questions might be applied to assist in understand the dynamics at play:

- Norms about which emotions employees should display
 - What are the social, occupational and organisational norms?

- How do these norms impact users of CRM IS? And relate to relationship goals at the norms level with customers?
- How are these norms manifested through the existence and use of CRM IS?
- Characteristics of employees and customers
 - How does an individual's propensity to show certain emotions impact emotional expression between employees and customers
 - How does an individual's acceptance of technology impact the employee's expression of emotion?
- Discretion about displayed emotion
 - How are emotional labour tensions manifested?
 - What part do characteristics of CRM IS in emotional labour pressures?
 - What part do norms play in emotional labour pressures?
- Dimensions of emotion behaviour

- Can positive and negative emotions be linked to specific aspects of CRM IS functionality?
- How does emotion appear in the communication discourse?
- What is the impact of CRM IS on the emotional contagion process?
- Customer service quality perceptions
 - Do customers attribute good or bad service quality perceptions to CRM IS, the CRM IS user or a conceptualisation of the organisation?

A research study has now been initiated to evaluate the usefulness of the framework in a practical interpretive fieldwork setting, with propositions being developed from a review of the appropriate literature to evaluate each of the interconnections indicated within the framework and addressing the questions above.

5. Conclusions

A case has been made for the analysis of behaviours, specifically through the inclusion of emotions in an evaluation framework of CRM IS. It is proposed that through an understanding of the emotional dynamics at play, management could be better sensitised to the appropriate use of mandatory CRM IS and the social considerations of implementing such systems. Crucially, internal processes can lead to external benefits and it is envisaged that such an approach for evaluating CRM IS may have positive results in terms of customer satisfaction. The framework is intended to give a more holistic view of CRM IS implementation that looks beyond the traditional conceptualisation of business benefits to consider the social impacts and benefits of implementation. Such an analysis could assist organisations post implementation to evaluate their CRM IS or, more proactively, pre-implementation to feed into a more humanistic design and application of CRM IS in the service encounter.

References

- Bagozzi, R. P., M. Gopinath, et al. (1999). "The Role of Emotions in Marketing." Journal of the Academy of Marketing Science 27(2): 184-206.
- Bitner, M. J. (1990). "Evaluating Service Encounters: the Effects of Physical Surroundings and Employee Responses." Journal of Marketing 54: 69-82.
- Bitner, M. J., B. H. Booms, et al. (1990). "The Service Encounter: Diagnosing Favorable and Unfavourable Incidents." Journal of Marketing 54(1): 71-84.
- Bitner, M. J., S. W. Brown, et al. (2000). "Technology Infusion in Service Encounters." Journal of the Academy of Marketing Science 28(1): 138-49.
- Brave, S. and C. Nass (2003). Emotion in Human-Computer Interaction. The Human-Computer Interaction Handbook. J. Jacko and A. Sears. Mahwah, NJ, Lawrence Erlbaum Associates: 81-93.
- Brown, S. A., A. P. Massey, et al. (2002). "Do I really have to? User acceptance of mandated technology." European Journal of Information Systems 11(4): 283-295.
- Cass, K. and T. Lauer (2002). What is the Relationship in Customer Relationship Management. Eighth Americas Conference on Information Systems (AMCIS2002), Dallas, Texas, USA, Association for Information Systems.
- Chau, P. Y. K. (1996). "An empirical assessment of a modified technology acceptance model." Journal of Management Information Systems 13(2): 185-204.
- Davis, F. (1989). "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology." MIS Quarterly 13(3): 319-340.
- Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: theory and results. Sloan School of Management, Massachusetts Institute of Technology.
- DeLone, W. H. and R. Ephraim (2003). "The DeLone and McLean Model of Information Systems Success: A Ten-Year Update." Journal of Management Information Systems 19(4): 9-30.
- Domagalski, T. A. (1999). "Review Article - Emotion in Organizations: Main Currents." Human Relations 52(6): 833-852.
- Dreu, C., M. West, et al. (2001). Chapter 8: Origins and Consequences of Emotions in Organisational Teams. Emotions at Work. R. Payne and C. L. Cooper, John Wiley and Sons Ltd.
- Fishbein, M. and I. Ajzen (1975). Belief, Attitude, Intentions and Behaviour: An Introduction to Theory and Research. Boston, Addison-Wesley.
- Fisher, A. (2001). New Ways to Win Over Fickle Clients. The Financial Times. London.

- Fisher, C. D. and N. M. Ashkanasy (2000). "The emerging role of emotions in work life: an introduction." Journal of Organizational Behavior 21(Special Issue: Emotion in Organizations): 147-162.
- Goldenberg, B. J. (2002). CRM Automation. New Jersey, Prentice Hall PTR.
- Heskett, J. L., W. E. Sasser Jr, et al. (1997). The Service Profit Chain. New York, Free Press.
- Heskett, J. L., W. E. Sasser Jr, et al. (1997). The Service Profit Chain: How Leading Companies Link Profit and Growth to Loyalty, Satisfaction, and Value. New York, Free Press.
- Hess, T. J. and R. Hightower (2002). Using Equity Theory to Understand User Satisfaction with ERP Systems: Extending and Advancing the Equity-Implementation Model. Twenty-Third International Conference on Information Systems (ICIS) December 2002, Barcelona.
- Kasper-Fuehrer, E. and N. M. Ashkanasy (2001). "Communicating Trustworthiness and Building Trust in Interorganizational Virtual Organizations." Journal of Management 27(3): 235 - 254.
- Kelly, K. (1998). New Rules for the New Economy: 10 Ways the Network Economy is Changing Everything. London, Fourth Estate Ltd.
- Kim, H.-W., L. Gil-Hyung, et al. (2002). Exploring the Critical Success Factors for Customer Relationship Management and Electronic Customer Relationship Management Systems. Twenty-Third International Conference on Information Systems (ICIS) December 2002, Barcelona, Spain.
- Kotler, P. (1994). Marketing Management: Analysis, Planning, Implementation and Control. New Jersey, Prentice Hall.
- Lamb, R. and R. Kling (2003). "Reconceptualizing Users as Social Actors in Information Systems Research." MIS Quarterly 27(2): 197-235.
- Legris, P., J. Ingham, et al. (2003). "Why do people use information technology? A critical review of the technology acceptance model." Information & Management 40(3): 191-204.
- Malhotra, Y. and D. F. Galletta (1999). Extending the Technology Acceptance Model to Account for Social Influence: Theoretical Bases and Empirical Validation. Thirty-Second Hawaii International Conference on System Sciences (HICSS) January 1999, Maui, Hawaii.
- Mattila, A. S. and C. Enz (2002). "The Role of Emotions in Service Encounters." The Journal of Service Research 4(4): 268-277.
- McCalla, R., J.-N. Ezingard, et al. (2002). IT-Enabled Customer Relationship management: An Exploratory Construct Development from the Content Analysis of Vendors Claims. 9th European Conference on Information Technology Evaluation (ECITE), Universite Paris-Dauphine, MCIL.
- McCalla, R., J.-N. Ezingard, et al. (2003). CRM Information Systems Evaluation: bridging the gap between practice and theory. British Academy of Management Conference (BAM 2003), Leeds Business School, Harrogate, England.
- Meuter, M. L., A. L. Ostrom, et al. (2000). "Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters." Journal of Marketing 64: 50-64.
- Möbius, M. (2002). B2B E-Commerce: A Conceptualisation and an Empirical Investigation of the Effects of Extranet Technology. Henley-on-Thames, Henley Management College.
- Moore, G. C. and I. Benbasat (1991). "Development of an Instrument to measure the perceptions of adopting an information technology innovation." Information Systems Research 2(3): 192-222.
- Orlikowski, W. J. and S. R. Barley (2001). "Technology and institutions: What can research on information technology and research on organizations learn from each other?" MIS Quarterly 25(2): 145.
- Pantazopoulos, A. (2003). Editorial: Building Customer Relationships in the Electronic Age. 2003.
- Parasuraman, A. (1996). Understanding and leveraging the role of customer service in external, interactive and internal marketing. Frontiers in Service Conference, Nashville, TN.
- Parasuraman, A. (2000). "Technology Readiness Index (TRI): A Multiple-Item Scale to Measure Readiness to Embrace New Technologies." Journal of Service Research 2(4): 307-320.

- Parasuraman, A. and D. Grewal (2000). "The Impact of Technology on the Quality-Value-Loyalty Chain: A Research Agenda." Academy of Marketing Science 28(1): 168-174.
- Patton, S. (2001). "The truth about CRM." CIO Magazine(May).
- Peppers, D., M. Rogers, et al. (1999). "Is your company ready for one-to-one marketing?" Harvard Business Review(January-February): 151-160.
- Picard, R. W. (1997). Affective Computing, MIT Press.
- Price, L. L., E. J. Arnould, et al. (1995). "Consumers' Emotional Responses to Service Encounters." International Journal of Service Industry Management 6(3): 34-63.
- Pugh, S. D. (2001). "Service with a Smile: Emotional Contagion in the Service Encounter." Academy of Management Journal 44(5): 1018-1027.
- Puschman, T. and R. Alt (2001). Customer Relationship Management in the Pharmaceutical Industry. Thirty-Fourth Hawaii International Conference on System Sciences (HICSS) January 2001, Maui, Hawaii.
- Rafaelli, A. and R. I. Sutton (1989). The Expression of Emotion in Organizational Life. Research in Organizational Behavior. L. L. Cummings and B. M. Staw. Greenwich, CI, JAI. 11: 1-42.
- Romano, N. C. J. (2001). Customer Relations Management Research: An Assessment of Sub Field Development and Maturity. Thirty-Fourth Hawaii International Conference on System Sciences (HICSS) January 2001, Maui, Hawaii.
- Venkatesh, V. and F. Davis, D (2000). "A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies." Management Science 46(2): 186-204.