

5-2015

Understanding organisational changes in the post-adoption of CRM implementation: A socio-technical perspective

Wallayaporn Techakriengkrai
Auckland University of Technology, wtechakr@aut.ac.nz

Angsana A. Techatassanasoontorn
Auckland University of Technology, angšana@aut.ac.nz

Felix B. Tan
Auckland University of Technology, ftan@aut.ac.nz

Follow this and additional works at: <http://aisel.aisnet.org/confirm2015>

Recommended Citation

Techakriengkrai, Wallayaporn; Techatassanasoontorn, Angšana A.; and Tan, Felix B., "Understanding organisational changes in the post-adoption of CRM implementation: A socio-technical perspective" (2015). *CONF-IRM 2015 Proceedings*. 5.
<http://aisel.aisnet.org/confirm2015/5>

This material is brought to you by the International Conference on Information Resources Management (CONF-IRM) at AIS Electronic Library (AISEL). It has been accepted for inclusion in CONF-IRM 2015 Proceedings by an authorized administrator of AIS Electronic Library (AISEL). For more information, please contact elibrary@aisnet.org.

R63. Understanding organisational changes in the post-adoption of CRM implementation: A socio-technical perspective

Wallayaporn Techakriengkrai
Auckland University of Technology
wtechakr@aut.ac.nz

Angsana A. Techatassanasoontorn
Auckland University of Technology
angsana@aut.ac.nz

Felix B. Tan
Auckland University of Technology
ftan@aut.ac.nz

Abstract

This research-in-progress paper uses a socio-technical perspective to analyse how organisational changes unfold in the post-adoption stage of a CRM implementation in an organisation. The qualitative interpretive case study was conducted at an innovative office automation solutions organisation in Bangkok, Thailand. The research findings reveal that the organisation's socio-technical system has been changed after CRM implementation including actors, tasks, structure and technology. In terms of structure, the organisation hired a new CRM team to convince and support users to use the CRM system. CRM officers became an essential part in the sales department. In addition, new rules were set up to prevent cross selling across districts. In terms of tasks, patterns of work have been changed in the sales community. In terms of technology, the CRM system enabled the visibility of customer data among sales staff, thereby shaping the dynamics of their relationships. Furthermore, there are two main consequences (increased transparency and conflict within the organisation) that emerge after CRM implementation. The paper concludes by discussing the study's theoretical contribution and implications to practice.

Keywords

CRM use, post-adoption, socio-technical perspective

1. Introduction

Past research largely focuses on initial adoption decisions of CRM. For instance, a study by Vella et al. (2012) examined the effect of behavioural inhibition systems and behavioural activation systems on users' intention to adopt CRM applications. Shum et al.'s (2007) findings show that employees' commitment to change is important in successful implementations of CRM. However, there has been little research concerning the continuous use of CRM and, in

particular, the associated change process in the post-adoption stage. This study aims to fill this gap by studying post-adoptive change process in organisational CRM implementations. The research question guiding this study is: How do organisational changes unfold in the CRM implementation process? In this study, Leavitt's socio-technical system is used to analyse and explain socio-technical changes and consequences in the organisation after CRM implementation. This research contributes to an understanding of post-adoption change process in information systems implementations in general and CRM implementations in particular. Next, we present the review of the CRM literature and offer background discussion of the socio-technical perspective. In the research methodology section, we outline our data collection, analysis and background of the case organisation. In the findings and discussion section, we present the preliminary findings based on the analysis of interview data. The paper ends with the conclusion.

2. Literature Review

In this section, the relevant literature of CRM systems implementations is reviewed. A socio-technical perspective used to ground the empirical inquiry is also discussed.

2.1 Customer Relationship Management (CRM)

CRM has its roots in relationship marketing which aims to build a long-term relationship with customers (Light, 2003; Pulde, 1999). Davenport (2001) stated that CRM systems are tools, technologies and procedures to manage and improve the relationships with customers, prospects, and business partners in an organisation. Bibiano and Pastor (2006, p. 1) define a CRM system as "a sort of information system technology which is part of the more general category of enterprise systems that also includes enterprise resource planning and supply chain management systems." This study combines the definitions of CRM from Bibiano and Pastor (2006) and Davenport (2001) and refers to a CRM application as an enterprise system that integrates tools, technologies, and procedures for an organisation to maintain relationships with customers by delivering value and satisfaction to customers. Hsieh et al. (2011) draw on sensemaking theory to develop a model to understand the antecedents, contingencies, and consequences of employees' extended use of CRM. They find that employees are influenced in post-adoptive sensemaking at two levels: technology and work system. Son and Han (2011) investigate how technology readiness affects continued use of new technology. Their finding shows that each dimension of technology readiness shapes usage patterns in different ways. Innovative functions have a significantly positive impact on consumer satisfaction and repurchase intention. A few studies focus on post-adoption changes in organisations. Dong (2012) develops a conceptual model to examine the role of IT governance in the post-adoption stage of CRM use and organisation performance. He finds that CRM use generates operational and strategic benefits in business process that enable firms to improve their performance. This study adopts a socio-technical approach to study organisational changes in the post adoption stage of CRM implementation.

2.2 A socio-technical perspective

A socio-technical approach has been introduced as a promising perspective to study IT and social change in organisations (Kling & Lamb, 1999). Originally, Leavitt's socio-technical (S-T) system model synthesised the main contours of theories of organisational change "as a kind of sharp caricature of underlying beliefs and prejudices about important dimensions of

organisations” (Leavitt, 1964, p. 55). A socio-technical system includes four elements: (i) actors (e.g., project participants and stakeholders) and their characteristics and attributes; (ii) tasks which refer to what and how work is accomplished; (iii) structure which represents institutionalised rules and arrangements; and (iv) technology including hardware, software and tools. Leavitt (1964) states that components of an organisation’s system are interdependent; the change of one component affects other components and leads to organisational change. A socio-technical perspective is useful as a lens to examine organisational changes and individuals’ behaviours toward new CRM implementations (Leavitt, 1964). In this study, a socio-technical perspective is used to understand an emergent process of change after a new CRM implementation.

3. Research Methodology

This research adopts the qualitative interpretive case study method to examine changes associated with CRM implementation in an organisation. This case is part of a broader study which aims to develop a rich and substantive theory to understand user behaviour and organisational change in CRM implementations. Semi-structured interviews were conducted with CRM users. Participants were selected based on their knowledge and expertise in the CRM applications. The interview contains questions about their perception toward CRM systems, their CRM use, and related organisational change. Thematic analysis was used to analyse data (Braun & Clarke, 2006). In this study, Nvivo software was used to organise and analyse data. The data were collected in 2014 at an innovative office automation solutions organisation in Bangkok, Thailand. It is a 73-years-old industry leader in innovative office automation, equipment and electronics. It has approximately 2,000 staff in Thailand. The CRM implementation commenced in 2010. Three Sales and Marketing departments participated in this research. The organisation organises the sales department into three units according to type of products and locations. These include the Business Solution Development (IT products and Brand products), Business Solution Outsourcing (Software and Service), and Sales Bangkok (Brand products). All of the six participants are sales professionals. We use pseudonyms for participants to protect their privacy. Before CRM was introduced, the organisation has had its own information system called RIS for keeping customer information and creating invoices. This in-house system is still in use for creating invoices. Sales professionals must create accounts and opportunities under each account in the new CRM system and the data is automatically transferred to the RIS system in order to create invoices. The RIS system is used in various departments within the organisation such as sales department (generating invoices), accounting department (tracking customer invoices), and warehouse department (ordering products).

4. Findings and Discussion

In this section, the initial findings are presented based on the analysis of the interview data with six sales staff across three departments. We first present previous work practices for sales professionals, CRM use, and then consequences to the sales community. Finally, this section ends with discussion.

4.1 Previous work practices for sales professionals

In this study, we adopt Leavitt's socio-technical (S-T) system model to study socio-technical change after CRM implementation. This system includes actors, tasks, structure and technology (Leavitt, 1964). In our research, actors refer to sales professionals and CRM officers. Sales professionals' tasks mainly focus on selling products and services to achieve individual targeted sales amount. The organisation did not have a centralised information system to keep customer information. Sales staff had their own idiosyncratic ways to maintain data. Many sales professionals used Excel to produce monthly reports. To manage their schedules, they used various tools to keep records of appointments and remind them about their activities. Some of these tools are paper calendar, google calendar, and calendar in Lotus Note. Some use simple applications like Excel to keep records of customers' information. Participant C states that *"Each sales officer has his/her own excel file and keeps separately in his/her own folder without sharing with others."* When sales professionals resigned from the organisation, new sales professionals or existing sales professionals were not able to see customer details that those sales officer dealt with including the progress of sales. This situation led the organisation to lose some customers.

The organisation allowed sales professionals to create their own customer accounts in RIS. As a result, some of the data in the database were duplicated. Participant A states that *"Some sales offices did not use a search function to search the existing customer account in the RIS system. They were able to create their own customer account without using the search function. One customer may have five to six duplicated accounts."* Sales professionals were able to create a duplicate account by using space or changing one character of customer account codes. According to Participant F, *"If one character of customer account is wrong or missing, it can be another account."* According to the organisation's policy, one customer account should be a responsible of one sales officer to prevent cross selling across districts. The practice of creating duplicated accounts allows some sales professionals to secretly sell products in other sales professionals' districts. Participant F states that *"The previous system has problems that cannot be solved until now. We have duplicate accounts or what we call "shadow accounts". They were exactly the same. One account had the correct customer code but another account did not. However, both of them have the same customer details. Other teams were able to create shadow accounts."*

4.2 CRM Use

The CRM system can be used as a systematic tool to do sales forecast, enter sales opportunity and activities, create and update customer accounts. The organisation hired a new CRM team and all the team members are new employees. Participant E states that *"The organisation hired a new team which has almost ten staffs to take care of the CRM system. That is quite a lot of staff."* The CRM team has the central role in convincing users to use the CRM system. In additional, the team has the sole authority to verify customer accounts, create new customer accounts, and solve problems related to CRM use. If sales professionals would like to create a new customer account or verify an existing account, they must send a request to the CRM team. In terms of technology, the CRM system is used for keeping customer information and generating reports for management. Participant A states that *"Data in the CRM system are used to produce reports for regional managers. The data that sales professionals enter into the system will be used to present to management level. After that, management level will use this information to present to*

regional managers.” There is another benefit of CRM system. Sales staffs can work anywhere anytime. As quoted from Participant E, *“I am impressed that I can use the CRM application outside the organisation. Most of sales people spend almost all their time outside office. If we can use the application off-site, it would be very convenient for us.”*

There are compulsory fields associated with customer data in the CRM system that sales professionals must enter into the system. According to Participant A, *“I have to pay more attention. We have to collect and prepare customer data.”* Sales professionals have to change their patterns of work. Everything is more systematic. They use the CRM system to do sales forecast, enter sales opportunity and activities. Managers are able to monitor their works from the CRM system. However, the CRM application does not affect all previous work processes. For example, Participant F states that *“We just changed the way we do work. However, we did not change our procedure of work. Everything still remains the same but it makes everything clearer, recordable, data accessible, checkable. Every transaction is recorded in the system.”* Participant A states that *“There is a data entry template that requires us to enter all compulsory fields.”*

4.3 Consequences to the Sales Community

There are two main consequences that occur after CRM implementation. Firstly, the result shows that CRM system is a “transparency tool” to make everything clearer in terms of sales activities. Participant E states that *“It is like cleaning underneath a rug that has rubbish. CRM is like a cleaner. In the present, all sales professionals have to enter customer information into the CRM system. All customer accounts must be approved by CRM team. We now know who has the authority to sell to which customers.”* Participant A also states that *“Information in the CRM system showed that I went to visit a customer and had activities 1 2 3. We were able to trace from this application.”* After the CRM implementation, sales professionals have to enter customer data into the CRM system. They have to share and verify their accounts. Information transparency or the degree of visibility and accessibility of information (Granados, Gupta, & Kauffman, 2010; Lu et al, 2014; Schilhavy & Iyer, 2007; Zhu, 2002) increases the transparency in work practices among sales professionals. In other words, sales professionals can no longer sell products across other sales professionals’ districts. Secondly, there are emerging conflicts among sales professionals after CRM implementation. The main conflict is related to owners of customer accounts. Participant F states that *“There is a conflict within the organisation. It is like an internal conflict of interest that has never happened before.”* To address the conflicts, management sets up new rules to prevent cross selling across districts. As described by Participant A, *“There were no problems within the same unit. However, there were many issues across the unit.”*

4.4 Discussion

This research adopts the qualitative interpretive case study method and uses a socio-technical approach to examine organisational changes associated with CRM implementation. Leavitt’s (1964) concept of socio-technical system offers a broad framework to understand changes in an organisation through a new IS implementation. Previous studies that apply the socio-technical model offer accurate process explanations of IS change outcomes. For example, McLeod and Doolin (2012) draw on theories of situated action and socio-technical change to produce a narrative explanation of the emergent change process that occurs in the IS development project.

They suggest that IS development is not a straightforward process, but emerges less than predictably over time through complex socio-technical interactions with unanticipated events and unintended consequences.

Overall, we found that, after the CRM system was introduced into the sales department, their socio-technical system has been changed including tasks (new patterns of work), structure (new rules, new CRM team, and clarification tool), technology (anywhere anytime), and actors (sales professionals and the CRM team). Furthermore, there are two main consequences from CRM use namely increased transparency and conflict within the organisation. The model of socio-technical change and consequences after CRM implementation is presented in Figure 1. In this study, the initial findings are presented based on the analysis of the interview data with six sales staff across three departments. In the full study, we have three sets of questions that are suitable to different groups of participants including users, IT support staffs, and managers. The next step is to analyse interview data with additional participants (managers and IT support staff) in order to develop a richer explanation of change process.

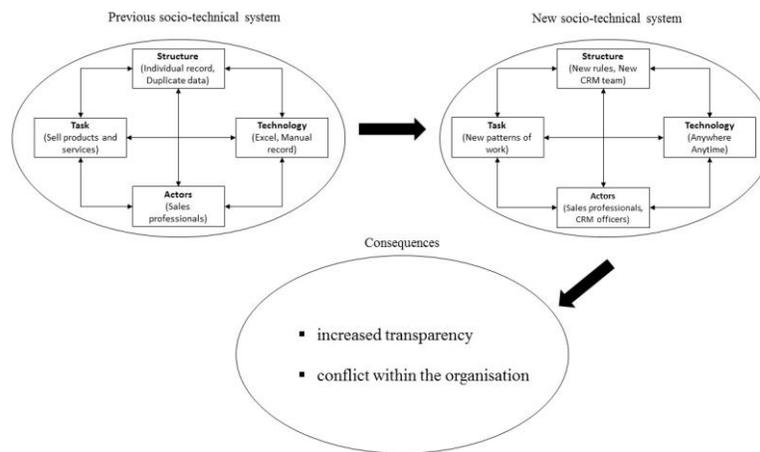


Figure 1: The model of socio-technical change and consequences

5. Conclusions

In this research-in-progress paper, we have presented the socio-technical changes and consequences in the sales department after CRM implementation at an innovative office automation solutions organisation in Bangkok, Thailand. The findings contribute to both theory and practice. In terms of theory, this research offers a nuanced understanding of changes and consequences from information system implementation. This model extends the work of Leavitt (1964) by adding consequences to understand various concerns that may occur after CRM implementation. The increased transparency of sales and customer information contributes to conflict in the sales community. Conflict occurs among sales professionals across the departments which affected their relationships. In terms of practice, the findings can assist organisations to handle unanticipated events and consequences that may occur in the post adoption stage of CRM implementations. The data analysis is currently in progress. The next step is to analyse additional cases to develop a cross-case perspective of changes with a view of

developing a rich and substantive theory to understand user behaviour and organisational change in CRM deployments.

References

- Bibiano, L.H., and Pastor Collado, J.A. (2006). "Towards a Definition of a CRM System Life-cycle", *Proceedings of the European and Mediterranean Conference on Information Systems (EMCIS)*, pp. 1-8.
- Braun, V., and Clarke, V. (2006). "Using Thematic Analysis in Psychology", *Qualitative Research in Psychology* (3)2, pp. 77-101.
- Davenport, T. (2001). "The New, New IT Strategy First there was reengineering. Then ERP, KM and CRM. Is e-strategy the next killer app?", *CIO* (14)14, pp 58-63.
- Granados, N., Gupta, A., and Kauffman, R.J. (2001). Research Commentary-Information Transparency in Business-to-Consumer Markets: Concepts, Framework, and Research Agenda. *Information System Research*, 21(2), pp. 207-226.
- Hsieh, J.P.A., Rai, A., and Xu, S.X. (2011). "Extracting Business Value from IT: A Sensemaking Perspective of Post-adoptive Use", *Management Science* (57)11, pp. 2018-2039.
- Kling, R., and Lamb, R. (1999). "IT and Organizational Change in Digital Economies: A Socio-technical Approach", *ACM SIGCAS Computers and Society* (29)3, pp. 17-25.
- Leavitt, H.J. (1964). "Applied Organization Change in Industry: Structural, Technical and Human Approaches", *New Perspectives in Organizational Research* (55), p. 71.
- Light, B. (2003). "CRM Packaged Software: A Study of Organisational Experiences", *Business Process Management Journal*, (9)5, pp. 603-616.
- Lu, Y., Gupta, A., Ketter, W., and Heck, E.V. (2014), "Information Transparency in Multi-Channel B2B Auctions: A Field Experiment". *Paper presented at the International Conference on Information Systems*, Auckland, New Zealand.
- McLeod, L., and Doolin, B. (2012). "Information Systems Development as Situated Socio-technical Change: A Process Approach", *European Journal of Information Systems* (21)2, pp. 176-191.
- Pulde, M.F. (1999). "Physician-centered Management Guidelines", *Physician Executive* (25)1, p. 40.
- Schilhavy, R., and Iyer, L. (2007). "Exploring the information effects of identity and Information transparency in reputation systems". *Paper presented at the diffusion Interest Group in Information Technology (DIGIT)*, Montreal, Canada.
- Shum, P., Bove, L., and Auh, S. (2008). "Employees' affective commitment to change", *European Journal of Marketing*, (42)11/12, pp. 1346-1371.
- Son, M., and Han, K. (2011). "Beyond the Technology Adoption: Technology Readiness Effects on Post-adoption Behavior", *Journal of Business Research* (64)11, pp. 1178-1182.
- Vella, J., Caruana, A., and Pitt F. (2012). "The effect of behavioural activation and inhibition on CRM adoption", *International Journal of Bank Marketing*, (30)1, pp. 43-59.

Zhu, K. (2002). "Information Transparency in Electronic Marketplaces: Why Data Transparency may Hinder the Adoption of B2B Exchanges", *Electronic Markets*, 12(2), pp. 92-99.