CHAPTER 3: RESEARCH METHODOLOGY

This study applies a positivist case study methodology to build in-depth understanding of the dynamic management of the technology and organizational elements of CRM systems. Positivist research seeks to explain and predict social phenomena by searching for regularity and causal relationships among constituent elements (Burrell and Morgan, 1979). CRM system operations involve multiple participants with different perceptions that need to be verified and synthesized, which necessitates dynamic exploration into each different situation. Since survey results cannot present an objective and complete view of the management of the technology and organizational elements of CRM systems, meticulous data collection in the presence of the researcher during the data collection process is considered essential, in order to clarify concepts and to ensure that the understanding of the concepts involved is consistent and precise across the subjects.

The research process is described as the following.

First, based on the literature reviewed, the technology and organizational elements of a CRM system are found out, and the two propositions are formed to explain how businesses integrate the technology and organizational elements to obtain lasting value from a complicated CRM system.

Second, based on the literature reviewed and verification with practitioners, this research develops a semi-structured questionnaire (in appendix D) to collect detailed information on the dynamic management of the technology and organizational elements of CRM systems. A pre-test with business managers of CRM systems is then used to enhance the validity of the instrument.

Third, field interviews were conducted with three mobile telecom companies in Taiwan. The mobile telecom industry is a kind of service industry so customers are extremely important intangible assets for the companies in this industry. Because transactions of the industry are essentially IT-based, the mobile telecom companies already have plentiful information about customers. The mobile telecom industry in Taiwan has been saturated. After the liberalization of mobile telecom services in 1997, the mobile phone penetration rate had increased continuously and sharply before December 2003. However, after the rate achieved its high peak which was about 114% in December 2003, it has continuously decreased to about 97% in September 2005. Therefore, mobile telecom companies have changed their strategy focus from acquiring new customers to enhancing customer contribution and customer retention. In order to effectively utilize the customer information to aid developing and retaining higher-value customers, the mobile telecom companies have paid much attention to implement the CRM technology. Therefore, this research decided to focus on mobile telecom industry to carry out case studies.

Originally there were six mobile telecom companies providing 2G mobile services in Taiwan in 1997. After the merger with smaller-scale companies in 2001 and 2004, there are three companies leading the mobile telecom market. At present, there are other two companies which only offer 3G services. However, the amount of 3G subscribers is very small now and the mobile telecom

industry is still dominated by the three market leaders which occupying nearly the whole mobile telecom market. Therefore, this research selected the three market leaders of the mobile telecom industry for case study (described in Table 3-1).

Table 3-1 Description of Cases Studied

	Company A	Company B	Company C
Founded	Corporatization in 1996	1997	1997
Business	A full range of telecommunication services	Mobile communication services	Mobile communication services
Merger		Acquired two regional mobile operator in 2001 and 2004 respectively	Merged an islandwide mobile operator in 2004
CRM IT Implementation	C: Call center/ e-counter/ Branch offices supporting systems E: Billing systems/ Customer transaction processing system I: Data warehouse/Data mart/Data mining/ OLAP	C: Call center/Internet shop & customer service center/Shops supporting systems E: Billing system/ Customer management system/CRM campaign platform I: Data warehouse/Data mart/Data mining/ OLAP	C: Call center/ e-CRM/ Shops supporting systems E: Billing system/ Customer transaction processing system/ Campaign management system I: Data warehouse/Data mart/Data mining/ OLAP
Market Share (2005)			
Subscribers	39.6%	30.0%	30.5%
Revenue	35.1%	30.8%	34.1%
Performance Ranking			
Subscribers (03/04/05)	1/1/1	2/2/3	3/3/2
Revenue (03/04/05)	1/1/1	2/3/3	3/2/2

Note: C: Communicational CRM, E: Execution CRM, I: Intelligent CRM

Multiple interviewees from all three cases were contacted for collecting data. The major interviewees are managers and users related to CRM operation because they understand information integration and organizational alignment of CRM operation. Other interviewees are employees of the IT department who understand the implementation and integration of CRM

technology elements. Every interviewee took more than an hour. In addition to structured questions, open-ended questions sought elaboration on information integration and organizational alignment of a CRM system. Originally this research expected to interview two to four informants for each company. However, because Company C has some strict principles of academic interviews, finally only one informant could be interviewed. Nevertheless, the secondary data were collected to complement the insufficient parts of interviews.

Table 3-2 Profiles of Interviewees

	Department	Job Title	Seniority	Interview Time
A	Marketing Department/General Headquarters	Senior Director	6	2hrs 20ms
	Department of Information Management/ General Headquarters	Senior Administrator	15	1hr 30ms
	Marketing Department/Mobile Business Group	Administrator	25	1hr 30ms
	Marketing Department/Mobile Business Group	Assistant Engineer	12	1hr 30ms
B	Customer Intelligence & Retention Division	Director	2.5	1hr 40ms
	Customer Intelligence & Retention Division	Principal Administrator	3	1hr 40ms
	Data Warehouse & CRM/ Enterprise Management Solutions Division	Deputy Director	8	1hr
C	Technology Development/ Business & Technology Development Division	Vice President	2	1hr 30ms

Fourth, using an approach similar to that described by Eisenhardt (1989) for within- and cross-case analysis, all interviews are then transcribed and compared with other interviews and documents from the same organization, and the CRM value of different kinds of management of the technology and organizational elements are analyzed. Each case was deeply discussed and analyzed for understanding its properties and advantages. To discover the commonalities and differences between cases, cross-case analysis was conducted to deeply analyze and consolidate interview results and case studies. In this stage, this research formed preliminary findings and confirmed propositions.

Finally, preliminary findings and confirmed propositions were consolidated to form further findings that provide more insights on the dynamic management of the technology and organizational elements of CRM systems.