

**CHAPTER 4: RESEARCH RESULTS**

**4.1 Company A**

**4.1.1 Business Background**

Company A was formed as a public financial institution and has been in existence for decades. In recent years, the advancement of electronic communications technology, the drastic social changes, and the increasing requirements from the general public have been forcing operations of company A into a difficult situation. To cope with the current situation and to adhere to government policy, company A has transformed into a state-run company, for the purpose of breaking through the predicament and creating a new era.

**4.1.2 Organization Background**

Company A has three main vice president including administration, banking, and finance. The vice president of administration controls the departments of personnel, occupational safety and health, civil service ethics, service, and maintenance. The vice president of banking manages the departments of savings and remittances, life insurance, and information management. The vice president of finance controls the departments of accounting, property operations, and capital operations.

**4.1.3 CRM Implementation Structure**

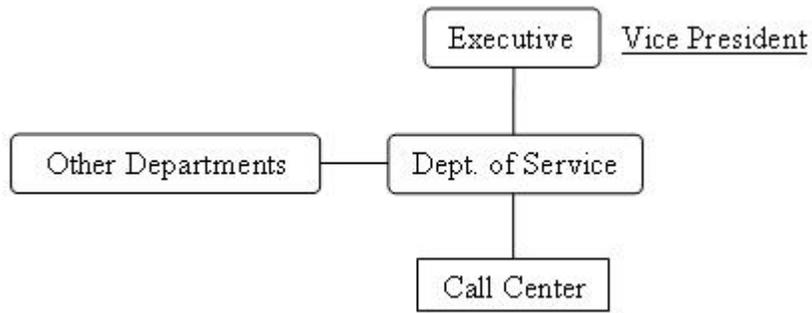
The call center was initiated by the former president and implemented for three years. The systems of the call center and service personnel are outsourced and managed by a professional outsourcing company. The outsourcing operations are controlled by the department of service under the vice president of administration. All service personnel have to be trained for specific products of whole financial holding company. This call center serves about 100 thousands of customers every month.

**Table 4-1. Implemented CRM Modules of Company A**

<b>Modules</b>	<b>Years</b>	<b>Under</b>	<b>Serving scope</b>	
<b>Analytical</b>	N/A			
<b>Operational</b>	Call Center	3	Outsourcing	Every department

The major work of the call center is customer service. The department of service is in charge of managing outsourcing operations, coordinating others business units and the outsourcing company, and reporting to the vice president of administration. The department of service disseminates the customer information collected by call center to related departments.

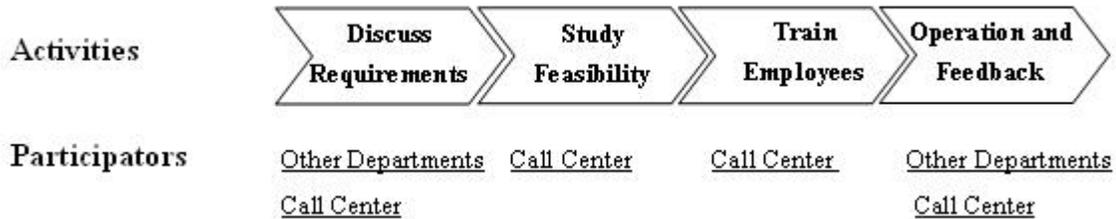
**Figure 4-1. The Organization of CRM Operation of Company A**



#### 4.1.4 CRM Operation

The standard process of new requirements of other departments is started by discussing requirements between the managers of the call center and the department proposing the requirements. After they make a consensus, the managers of call center will study the feasibility of the requirements. If the answer is yes, the call center starts to train the service personnel about the knowledge of products of the requirements. After starting the operation, service personnel collect the customer information and customer complaints and disseminate the information to related departments.

**Figure 4-2. CRM Operation of Company A**



In company A, The major work of the call center is customer service and collecting customer complaints, but company A has implemented a successful campaign of cross-selling that proposed by a chief of service department and a executive officer of the department of life insurance. The objective of this campaign is to sell the product of life insurance to existing customers of whole financial holding through contacting customers by the call center. The project leaders of the campaign proactively solved conflicts between departments and doubts of sales personnel and encouraged related employees.

The revenue created by this campaign is not surprising but this campaign was the first time for company A to combine different channels and products to create a new operation model. This campaign was successfully implemented and a demonstration for outbound contacts and cross-selling. The managers of company A were so excited and amazing that a call center could create so successful campaign with small budget. Managers realized that how to completely use existing channels is an important topic. This campaign also excited much sales personnel to think over how to sell products with new channels and what customer needs are.

#### 4.1.5 Change in Organizational Culture

Company A was a public organization, and therefore it has not reached an advanced level of the market-orientation. However, the call center didn't lead to significant benefits on the market-oriented behaviors for company A.

Regarding the intelligence generation, marketers could acquire more information about customer need changes from the call center. The call center collects the customer information or customer complaints from customers' calls and disseminates the information to related departments. The call center contributes to little benefits on the intelligence dissemination. However, the campaign of cross-selling improved the intelligence dissemination through cross-departmental meetings in which marketers discuss customer needs. After the privatization of company A the department of R&D periodically reviews product development efforts to ensure that products are in line with what customers want. However, it's not resulted from the call center. The call center is beneficial to collect customer information and disseminate the information to related departments. Furthermore, the customer complaints are linked to the merits and the organization structure has been flattened so employees pay much attention to customer complaints and quickly response to customers, customer services especially. Regarding the employee empowerment, because of the limited capabilities of the call center, the employee empowerment had no significant improvement after implemented the call center. However, the campaign of cross-selling improves market-oriented behaviors of employees. Marketers and sales personnel would think over customer needs and how to effectively use the call center as a new channel.

The call center doesn't lead to advanced benefits on market-oriented behaviors but the campaign of cross-selling mentioned above still contributed to significant market-oriented behavior change. Because of this campaign, the department of service and the department of life insurance discussed the problem of targeting customer segments and coordinately held cross-departmental meetings with sales managers of branches and the outsourcing company to solve the follow-up events after starting this campaign. After the implementation of this campaign, the sales personnel of branches became more and more active. They actively worked overtime when they are on holiday. Service personnel are affected by sales personnel and actively worked overtime with them. Sales personnel even actively asked the service personnel about the talk skill and they wanted to go through outbound selling themselves. Thus, the leaders of the campaign are the key factors that enable the cross-departmental communication and employee empowerment.

Regarding the marketing and sales processes, the improvement is resulted from the privatization and discussing customer needs. The product designs are outsourced and the outsourcing company will analyze and target customers after company A has been transferred into state-run company. Marketers could target smaller customer segments through cross-departmental discussing customer needs. In terms of the R&D process, investigating customer need changes helps marketers to spot market trend to develop products. However, company A needs complete integration of related departments to facilitate and improve the R&D process. Because of the limited capabilities of the call center, company A could not predict the customer needs to help the production. Furthermore, the employees cannot acquire much customer data for security consideration so they cannot quickly response to customers about the questions of productions. Regarding the fulfillment process, the response time was decreased because the employees pay much attention to customer complaints that are linked to merit.

The market performance was not significantly improved by the market-oriented behavior change. Only the customer satisfaction was improved because employees pay much attention to customer complaints, the employees of the call center especially.

The top management initiatives are the key factors to enable the use of CRM. In this case, the top management clearly understood the purpose of the implementation of the call center but the top management didn't allocate sufficient time for CRM-related meetings, facilitate the use of CRM, and adequately measure the outcomes of the CRM use. The president and vice presidents clearly understand why to implement the call center. The purpose of the call center is to increase revenue. They always pay much attention to market changes and flexibly react. On the contrary, the operation employees do not take the market change into account and they merely take care of their works. The top management allocated sufficient resources for the CRM use but they didn't pay adequate time to attend the CRM-related meetings. Thus, directions of the CRM use may not match the expectations of the top management. The leader of the call center has sufficient power to change the related processes but the campaign was not initiated by top management. Regarding the enforcement, top management doesn't properly deal with the departmental conflict. Instead of top management, the middle managers including the chief of service department and the executive officer of the department of life insurance were actively solved the misgivings of sales personnel and the conflicts between branches and administrative departments. They even encouraged the sales managers of branches. Regarding the measurements of results, company A has no adequate measurements to measure outcomes of the call center. Furthermore, the customer-related indexes account for little percentage of the balanced score card so employees are not enforced to improve the customer value. Regarding the continuous improvement, company A has complete short term and long term plan about the use of CRM, continuously measures these plans, and improves the shortage after measuring the plans. However, the top management needs to give marketers more feedbacks about the use of call center in order to confirm that directions of the CRM use match expectations of the top management.

In this case, the top management doesn't represent the fully support to the CRM use but leaders of the campaign showed great leadership to facilitate the use of CRM, encourage the sales managers, manually target the customer segments, coordinate all participated departments, and even solve the conflicts between departments. Thus, it is believed that the leadership of the project leader is the key factor that enables the use of CRM and results in the cross-departmental information dissemination and the employee empowerment.

**Table 4-2. The Questionnaire Result of Company A**

<b>Constructs</b>	<b>B</b>	<b>A</b>	<b>Growth</b>	<b>Positive Effects</b>	<b>Affecting Factors</b>
<b>Market-Orientation</b>					
Intelligence Generation	2.5	3	0.5	Investigate customer needs change	Informational
Intelligence Dissemination	2.37	3.03	0.66	Discuss customer needs	The campaign of cross-selling
Responsiveness	2.76	3.35	0.59	Customer complaints	Informational
Empowerment	2.99	3.41	0.42	CRM has little impact	
<b>Process Performance</b>					
Marketing and Sales	2.2	2.95	0.75	Customer segmentation	Investigate customer needs

					change
					Discuss customer needs
R&D	2.7	3.03	0.33	Spot market trend to develop product	Investigate customer needs change
Production	3.03	3.2	0.17	CRM has little impact	
Fulfillment	2.7	3.7	1	Response time	Customer complaints
<b>Market Performance</b>	2.7	3.37	0.67	Customer satisfaction	Customer complaints
<b>Level</b>					
<b>Top Management Initiatives</b>					
Understanding		4.33			
Substantial Commitment		3.33			
Practical Executive		3.33			
Enforcement		3.25			
Measurement of Results		3			
Continuous Improvement		4			

## 4.2 Company B

### 4.2.1 Business Background

Adapting to the government financial reforms and prompt changes of financial environment, to achieve synergy through diversification, and to meet the needs in long-term development, company B was formed as a financial holding with a bank and a securities firm in recent years. Company B is a private financial holding but the major stockholder is the government.

### 4.2.2 Organization Background

Company B has two main business units including a commercial bank and a securities firm. The commercial bank contains four independent subsidiaries including insurance agency, real estate management, bills finance, and development and trust. The securities firm contains three independent subsidiaries including investment management, securities, and venture capital. Company B established six committees reporting to the chairman and five management units including information technology, finance investment, risk management, marketing, and administration that all report to the president. The general type of the organization is a functional structure that every subsidiary has its complete functions as a company.

### 4.2.3 CRM Implementation Structure

Company B has started to implement data warehouse system 2 years and serves all business but company B, so far, doesn't effectively use the system. End users send their requirements to the IT department and then the IT staff analyzes customer data through data warehouse. The call center has been implemented for 5 years. At that time, because the credit card department of the commercial bank was in urgent need of a call center to serve the credit card holders the credit card department implemented the call center independently. As time goes on, every departments of whole commercial bank need a call center to serve their customers for specific products and they will ask the credit card department to involve their product services in the call center.

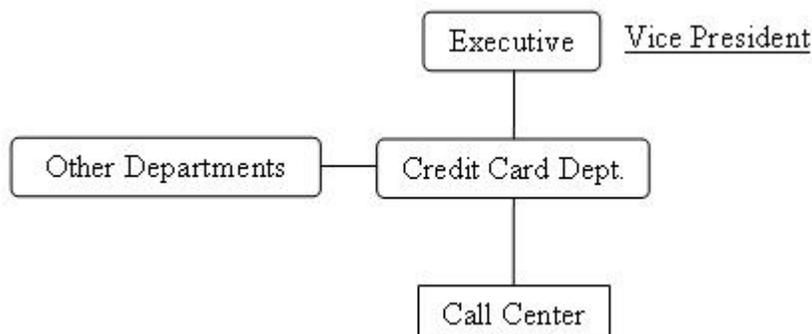
**Table 4-3. Implemented CRM Modules of Company B**

	Modules	Years	Under	Serving scope
<b>Analytical</b>	Data Warehouse	2	IT Dept.	Every business unit
<b>Operational</b>	Call Center	5	Credit Card Dept.	Whole commercial bank

The headquarters of company B has had a kickoff meeting about a complete CRM that serves all financial holding and include analytical and operational CRM modules. The call center and the data warehouse will be involved in the CRM plan but the call center, now, still be operated in the credit card department.

The credit card department is in charge of managing the call center and reports to the vice president of the commercial bank. The call center serves every departments of the commercial bank and links the data of other departments through medium software. The major work of the call center is inbound services. Only when the customer needs to be collected, the call center had little outbound business in the past. The major scope of current business of the call center includes bank savings, loans, cash card, credit card, trust, and foreign exchange. If the service personnel of the call center cannot immediately response to customers, they will ask the related departments about the customer problems and then call the customers. The credit card department pays the cost of the call center but it's expected that the department using services of the call center will share the expenses of the call center in the future. The call center has about five millions of customers and 45 service personnel coping with 100 thousands calls each month.

**Figure 4-3. The Organization of CRM Operation of Company B**

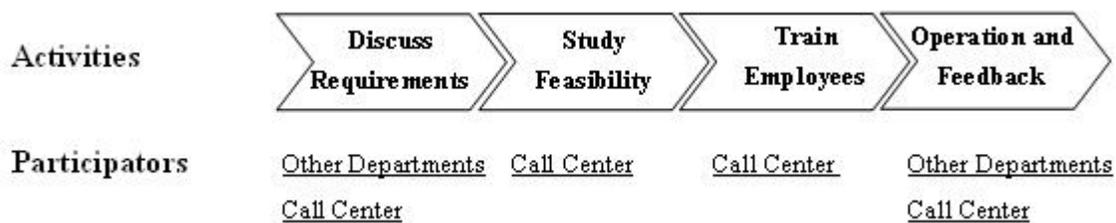


#### 4.2.4 CRM Operation

Such as the operation of company A, The standard process of new requirements of other departments is started by discussing requirements between the managers of the call center and the department proposing the requirements. After they make a consensus, the managers of call center will study the feasibility of these requirements. If the answer is yes, the call center starts to train the service personnel about the knowledge of products of the requirements. After starting the operation, service personnel collect the customer information and customer complaints and disseminate that to related departments.

The major work of the call center is to serve customers, collect customer information and complaints, and disseminate that to related departments. However, the call center merely disseminates customer information to related department. The manager of the call center won't discuss with other departments about their customer needs and complaints. Furthermore, the marketers of other departments won't actively ask the service personnel about the customer information. On the contrary, the manager of the call center discusses with marketers of the credit card department about the customer information. The manager of the call center has to report the analyzed information about performance, marketing, and practice in the meetings with marketers of credit card department. The marketers, moreover, are usually active to ask the manager of the call center about their customers.

**Figure 4-4. CRM Operation of Company B**



#### 4.2.5 Change in Organizational Culture

Because different informants have different impression about the use of the call center they would grade questions in different button lines. Thus, scores of the questionnaire have to be refined before further discussion. The table 4-4 shows the refined results of the questionnaire.

Company B still has some features of a public company. The features include functional organization structure and rigid organization. Regarding the intelligence generation, company B doesn't extremely focus on the changes of customers, markets, and competitors. Furthermore, the call center merely provides customer information to facilitate market research. Marketers receive more sounds of customers than before from the call center. Regarding the intelligence dissemination, marketers of the credit card department discuss customer needs with managers of the call center because the call center could provide the customer information helping marketers to design new products or campaigns. Furthermore, company B has implemented some software for internal communication and consequently the information collected by the call center could be delivered faster and faster. However, instead of the credit card department, other departments using the service of the call center passively receive the customer information. They won't discuss the customer needs with service personnel of the call center. Regarding the responsiveness, departments using services of the call center receive the customer information from the call center but they don't seem to react in terms of the information. Only the credit

card department plans the projects with the call center to response to the market change and customer needs. Marketers of the credit card department even actively ask the service personnel of the call center about their customer behaviors. However, all departments pay much attention to customer complaints collected from the call center. That is partially resulted from the pressure of merit. Regarding the employee empowerment, the interviewees of company B said that the personnel of the front-end service are affected by the call center because customers would say “service personnel of the call center are very polite and patient so you have to be polite and patient” to the front-end employees. They became more polite and patient. However, it’s not directly resulted from the call center. Thus, the call center doesn’t lead to significant increasing level of the responsiveness.

Because of little market-oriented behavior change, the process performance was not apparently improved. Company B could target the customers more precisely because marketers of the credit card department discuss the customer needs with service personnel of call center and carry out market researches. Regarding the R&D process, the results of the market research and discussing customer needs facilitate product managers to spot the market trend for product developments. However, company B needs frequent cross-departmental meetings and coordination to improve the product development. Particularly, the non-credit card departments need to pay more attention to the customer information. Regarding the production process, because of the limited capabilities of the call center company B cannot precisely predict the future customer needs and improve the productivity. The call center merely collects the information about customer complaints and suggestions. It cannot deeply analyze the customer behaviors and customer needs. Regarding the fulfillment process, the service personnel extremely respect the customer complaints, and therefore the response time of customer complaints could be decreased. However, company B may response to customer complaints quickly but it cannot quickly response to the change requirements of products because of the rigid organization culture and system.

The market-oriented behavior change doesn’t significantly improve the market performance. Company B has little outbound campaign trough the call center to improve indicators of the market performance. However the market research helps marketers to improve the target rate. The increased customer satisfaction is resulted from that employees place much importance on customer complaints.

The top management of company B clearly understands why the business needs to implement the CRM and explains the expectation of the CRM use but the top management didn’t allocate sufficient resources, appoint a powerful leader, facilitate the use of CRM, and measure the outcomes of CRM. The top management didn’t allocate enough time to attend the CRM meetings. Consequently, marketing activities may not match the top management’s expectations without their feedback. The manager of the call center highly graded the question about resources allocated by top management but the manager still mentioned the shortage of human resources of the call center. Thus, the top management allocated insufficient resource to use the call center. Regarding the practical executive, processes of the credit card department will be modified when the call center proposes suggestions in terms of credit card processes. However, other departments may not accept suggestions proposed by the call center. The top management could properly deal with the departmental conflicts but the top management doesn’t coordinate the CRM project team of headquarters and the manager of the call center. They have misunderstanding in terms of the future plan of the CRM. The CRM project team didn’t involve the manager of the call center. It’s very harmful when they are planning the CRM project. Company B has no adequate measurements to measure the outcomes of the call center and the short term plans and long term plans of the CRM. Particularly, the top management didn’t give feedbacks and cares to the personnel of the call center. The rigid promotion system of company B stops the prospects of

outstanding employees. Because of the bureaucratic organization employees need to pass examinations for promotion. Furthermore, the merit system is not complete, and therefore employees just take care of their works and they won't think about how to improve the merit and performance. The existing promotion system cannot drive the employees looking for better use of the call center.

In this case, it cannot greatly benefit from the call center because of the poor top management initiative and the bureaucratic organization. In fact, if company B can learn the skills of outbound campaigns as well as other companies or test customers' responses about new products through the call center, company B still can greatly benefit from the call center. For this kind of organizations, the call center is a channel to do business but they didn't realize it or they haven't been driven to completely use the call center.

**Table 4-4. The Questionnaire Result of Company B**

<b>Constructs</b>	<b>B</b>	<b>A</b>	<b>Growth</b>	<b>Positive Effects</b>	<b>Affecting Factors</b>
<b>Market-Orientation</b>					
Intelligence Generation	2	2.33	0.33	Market research	Informational
Intelligence Dissemination	2.6	3	0.4	Discuss customer needs Disseminate customer information	Informational
Responsiveness	2.88	3.25	0.37	Response to market change Customer complaint	Informational
Empowerment	2	2.67	0.67	CRM has little impact	
<b>Process Performance</b>					
Marketing and Sales	2	3	1	Customer segmentation	Market research Discuss customer needs
R&D	2	2.5	0.5	Spot market trend to develop product	Market research Discuss customer needs
Production	2	2.5	0	CRM has little impact	
Fulfillment	2	2.5	0.5	Response time	Customer complaint
<b>Market Performance</b>	2.33	2.66	0.33	Target rate Customer satisfaction	Market research Customer complaint
<b>Level</b>					
<b>Top Management Initiatives</b>					

Understanding	4
Substantial Commitment	2.67
Practical Executive	3
Enforcement	3.5
Measurement of Results	3
Continuous Improvement	2.75

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### 4.3 Company C

#### 4.3.1 Business Background

The former of company C is an insurance firm. The enterprise group C established company C including an insurance firm, a securities firm, a bank,, and a life insurance firm. Then, company C incorporated an investment and trust company and another bank.

#### 4.3.2 Organization Background

The members of company C include insurance, life insurance, bank, securities, investment and trust, direct marketing, investment, investment consultant, and capital management consultant. Company C also established a customer relationship develop department convening the CRM committee of the representatives of all subsidiaries.

#### 4.3.3 CRM Implementation Structure

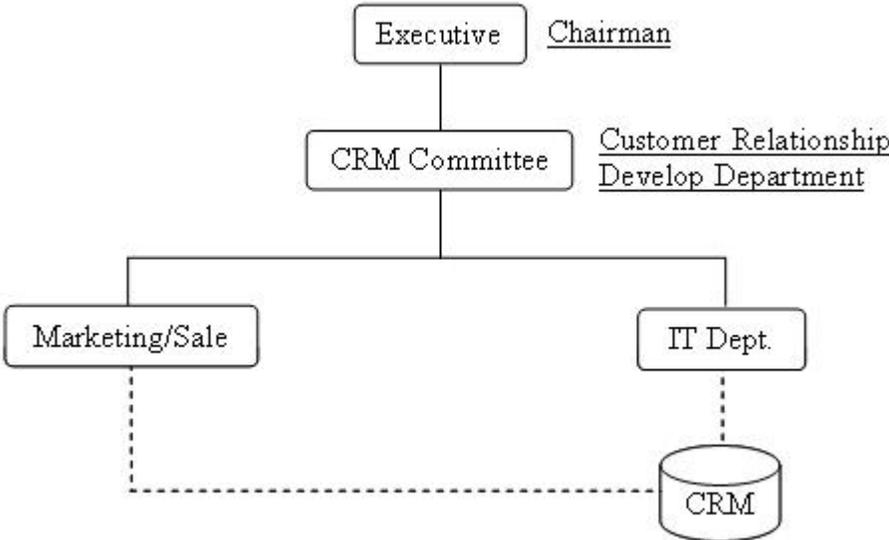
The project of data warehouse was started in 1998. The data warehouse was implemented in 2000. Company C has developed many applications on the data warehouse including OLAP (On-Line Analytical Processing), Data Mining, and an in-house query system. The data warehouse system is owned by the IT department and serves all subsidiaries of company C. Now, end users of all member of company C can acquire and analyze the data of the data warehouse through the data mining and Query system. The data mining system has been implemented for two years that is also owned by IT department and serves all subsidiary of company C. The in-house query system is developed by the IT department. The employees who have been trained by the IT department could easily use the query system to analyzed customer data of the data warehouse. The first call center had been implemented for ten years. Each business unit has its call center. The following discussion about company D is based on the analytical CRM.

**Table 4-5. Implemented CRM Modules of Company C**

	<b>Modules</b>	<b>Years</b>	<b>Under</b>	<b>Serving scope</b>
<b>Analytical</b>	Data Warehouse	5	IT department	All Business units
	Data Mining	3	IT department	All Business units
	Query system	2	IT department	All Business units
<b>Operational</b>	Call Center	10	Each BU	Each BU

The CRM organization includes four major members: executive, CRM committee, marketing/sales, and IT department. The customer relationship develop department is responsible to convene the CRM committee gathering representatives of all business units once a month and start the campaign approved by the CRM committee. The CRM committee directly reports to the chairman. The IT department is responsible to maintain the CRM system, guide the CRM use of end users, and train the end users. The CRM system here includes the data warehouse, data mining, and the in-house query system. Marketers and sales personnel have to be trained by the IT department and pass the examination of the CRM use, and then they could directly use the in-house query system and data mining system to analyzed customer data of the data warehouse. However, the employee can merely accesses the customer data owned by the belonging subsidiary of the employee. Thus, the customer data are owned by the subsidiary which drew the customers and are not shared by all subsidiaries but end users can access all customer data of all product lines of the belonging subsidiary. The representatives of marketing department of each subsidiary attend the CRM committee. They discuss new campaigns, outcomes of campaigns, customer needs, market trends, competitors, and opportunities of cross-selling and share their information and experiences.

**Figure 4-5. The Organization of CRM Operation of Company C**



4.3.4 CRM Operation

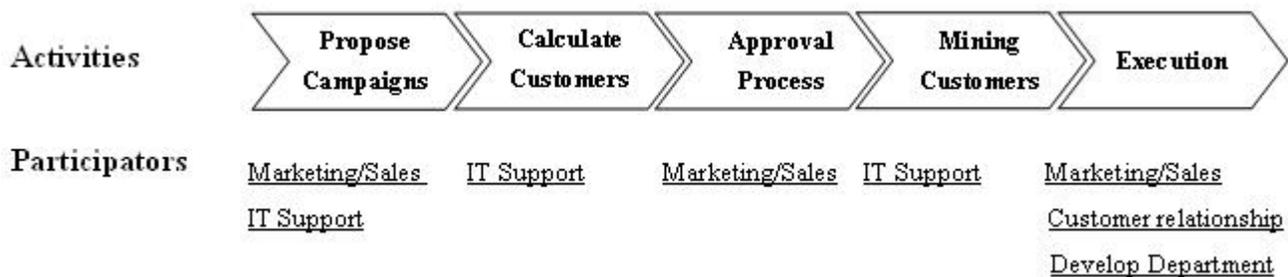
A marketer of a given subsidiary of company C can directly access the customer data of another department of the belonging subsidiary, no matter who draw this customer. If the marketer proposes a campaign targeting the customers who belong to the belonging subsidiary of this marketer, the marketer merely needs to propose the campaign in the BIU, a meeting of discussing the campaign in a subsidiary. The functionalities of the BIU are similar to the CRM committee but the BIU belongs to a subsidiary and the CRM committee belongs to the financial holding company.

The IT department directs and supports marketers of each subsidiary to use the in-house query system and data mining to analyzed customer data and marketers propose campaign based on the analyzed data. The representatives of each subsidiary report their campaigns in the cross-departmental CRM committee. If the campaign targets the customers of another subsidiary, the representative would inform the

representative of another subsidiary. Then, if a marketer proposes a campaign that may target customers of another subsidiary, the marketer should request the IT department to calculate the expected customer numbers and customer segments through the data warehouse. This campaign needs to be approved by the chief of the belonging subsidiary of the marketer. Then, the marketer needs to propose a formal requirement that require the IT department to mining the customer lists. This requirement needs to be approved by all chiefs of other subsidiaries that own the customers targeted by the campaign. After the approval process, the IT support mines customer lists for the campaign. Finally, the customer relationship develop department needs to approve the campaign and start the campaign and then the marketer could execute the campaign.

The CRM process of company C is similar to company D. Campaigns are discussed and reported its outcomes in a cross-departmental CRM committee. The cross-departmental communication deeply affects the results of the CRM use. The CRM committee excites the new ideas of cross-selling and shares information and experience of each subsidiary. Thus, the CRM committee is really a success factor to increase the cross-selling rate, improve the cross-departmental communication, and facilitate the CRM use.

**Figure 4-6. CRM Operation of Company C**



#### 4.3.5 Change in Organizational Culture

The use of CRM brings company C significant improvement on market-oriented behaviors including the intelligence generation, intelligence dissemination, responsiveness, and employee empowerment. The market-oriented behavior change also contributes to significant impact on process performance.

Regarding the intelligence generation, company C investigates customer preferences about new products and understands customers' impression about new products through call center. The marketers could acquire customer lists including customers who stopped to use products and then contact the customers through the call center to understand why they stopped to use the products. Thus, the informational and analytical capabilities of the CRM help marketers to do market research and investigate the customer preference changes. However, one of the interviewees indicated that the highly market competition enforce company C to do many market researches to realize customer needs.

In terms of the intelligence dissemination, the cross-departmental CRM committee is the most affecting factor that facilitates the cross-department discussion. Company C established the CRM committee that brings marketers of different departments together to discuss market trends and customer needs. The cross-departmental CRM committee also improves the dissemination of customer information because the marketers would share the information they own. Furthermore, the call center collects the customer satisfaction data and delivers it to all company through email. The dissemination of customer satisfaction data improve the efficiency and help employees to understand what products the customer

really wants. The informational capability of CRM and the Cross-departmental CRM committee lead to significant intelligence dissemination.

The informational and analytical capabilities of CRM and the cross-departmental CRM committee also contribute to significant improvement on the responsiveness. Because company C could acquire the customer information from CRM faster and faster, employees pay much attention to customer needs. The cross-departmental CRM committee brings quickly response to market changes. Several departments get together in the cross-departmental CRM committee periodically to plan a response to market changes taking place in the business environment. However, in order to quickly response to market changes, the system needs to support the flexible product modifications. Because the operation system is an in-house system that are not capable of flexibly changing the parameters to fit modified products, company C can not quickly response to price changes of competitors. The IT department of company C is working hard on it. Because the call center collects the customer complaints and deliver the information to related departments, employees very focus on the customer complaints. The analytical capability of the CRM improves the campaign execution. If a marketer has a campaign idea, this marketer could quickly analyze the customer information and precisely target customers. The campaign would be timely started because the CRM facilitates the marketer to form a campaign. The most significant improvement of the employee empowerment is the market-oriented thinking of employees. Marketers could use CRM to develop campaigns after the CRM implementation. Because CRM system holds customer data of whole financial group, marketers could develop a comprehensive campaign including all products of whole financial holding company and marketers would think about customer needs when developing a campaign. However, an interviewee indicated that the CRM cannot facilitate the employee empowerment of solving the customer problems. Because the market trend, employees are involved in decision making of customer problems in their department.

Regarding the marketing and sales processes, Marketers could divide customers into smaller segments according to different customer needs because of the improvement on market-oriented thinking. Marketers would think about customer needs and design varying marketing activity. Furthermore, marketers can design more complicated products based on customer behaviors to satisfy different customer needs after they became more market-oriented. Because the employees who directly face to customers pay much attention to customer complaints and customer needs and can acquire customer information based on their limits of authority company C can quickly response to the customer problems. The customer needs and customer complaints enforce employees to pay more attention to customer's problems and quickly response to them. Regarding the fulfillment process, the analyzed information of the data warehouse didn't delivered to the front-end employees, and therefore front-end employees provide limited service level to customers. Thus, the market-oriented behavior change leads to little impact on the fulfillment process. The market-oriented behavior change improves the process performance. Particularly, the cross-departmental CRM committee and market-oriented thinking bring positive impacts on process performance.

Because the analyzed information of CRM haven't be completely delivered to customer service processes. If company C can deliver analyzed information of CRM to customer service department, service personnel could provide customers better product portfolio and service. It's one kind of process integration that increases the customer satisfaction. Company C can improve the customer retention rate through developing customer behavior models of CRM to develop campaigns about the customer retention. However, company C doesn't have sufficient capabilities of developing models, so do outsourcing companies. Furthermore, there is still a gap between operation staffs and IT staffs so company C has not acquired full benefits from the CRM. The interviewee indicated that company C

didn't leverage the essence of the CRM so the market performance has not been greatly improved. However, the cross-departmental CRM committee and the market-oriented thinking also lead to the improvement on the cross-selling rate.

The top management of company C clearly understands why the company needs to implement CRM. The top management's purpose of the CRM implementation is to increase the cross-selling rate and improve the customer service. The top management could flexibly response to the environmental changes. Regarding the substantial commitment, the top management provides adequate budget and resources for the CRM implementation and the CRM use and attends the CRM committees every time. This shows that the top management devotes much substantial commitment and allocates adequate time to attend the CRM committee. The top management's attendance at the CRM committee drives marketers to follow expectations of the top management and effectively leverage the CRM in marketing. Regarding the practical executive, because the CRM committee directly reports to the top management, decisions made by the CRM committee are similar to the decisions made by the top management. Furthermore, the top management initiated the CRM project. Thus, the leader of CRM has enough decision power to enforce the changes of CRM related processes. Most conflicts arise from channels. For example, insurance and securities departments may target the same customer segment. Thus, company C established a channel arbitration team that will solve all conflicts. Either the top management would solve the serious conflicts between different departments. In company C, the top management actively leads, encourages, and facilitates the CRM use. Thus, the top management extremely enforces the use of CRM. Regarding measurements of the results, company C has more than 100 hundred of KPI to measure the performance. The customer-related indexes account for about 30 to 40 % of the balanced score card. Company C timely updates the indexes of the balanced score cards. Employees even could directly access the status of their balanced score card and improve weaknesses of their balanced score card. The concrete measurements about the CRM drive employee to think over customers and excellently leverage the CRM. Regarding the continuous improvement, company C has not digested full information because CRM provides too much information. So far, company C cannot take full benefits from CRM. Thus, company C didn't have a definite long term plan. Company C has adequate measurements to value the outcomes of the CRM use. However, an interviewee indicated that the top management should actively attend the cross-departmental meetings that discuss the outcomes of campaigns developed from CRM, propose suggestions, and guide the marketing personnel to meet their expectation. Thus, the top management needs to give marketers more feedbacks and cares.

An interviewee indicated that the top management is very active, invests considerable budget, and deeply concerns the project. Company C needs to adapt itself to the new organization after acquired another bank. In that time, the new organization leads to some poor KPI, the top management always takes account of employees. Though the CRM has been implemented for 2 to 3 years, the top management doesn't ask employees to quickly finish each campaign. Thus, the top management of company C really supports the CRM project and provides a complete environment that facilitates the CRM use.

**Table 4-6. The Questionnaire Result of Company C**

<b>Constructs</b>	<b>B</b>	<b>A</b>	<b>Growth</b>	<b>Positive Effects</b>	<b>Affecting Factors</b>
<b>Market-Orientation</b>					
Intelligence Generation	2.6	3.6	1	Market research Investigate customer	Informational Analytical

				preference change	Market competition
Intelligence Dissemination	2.4	4.1	1.7	Cross-departmental discussion Disseminate customer information Disseminate customer satisfaction data	Cross-departmental CRM committee Informational
Responsiveness	2.89	4.44	1.55	Focus on customer needs Response to market change Focus on customer complaints Timely project execution	Informational Organization change Analytical
Empowerment	3	4.13	1.13	Market-oriented thinking	Informational Analytical
<b>Process Performance</b>					
Marketing and Sales	2.5	4	1.5	Customer segmentation	Market-oriented thinking
R&D	2.75	4.75	2	Complicated products	Cross-departmental discussion Market-oriented thinking
Production	2.5	3.67	1.17	Response to customer problem	Focus on customer complaints Focus on customer needs
Fulfillment	3	3.5	0.5	CRM has little impact	
<b>Market Performance</b>	3	3.91	0.91	Cross-selling rate	Market-oriented thinking Organization change
<b>Level</b>					
<b>Top Management Initiatives</b>					
Understanding		5			
Substantial Commitment		4.8			

Practical Executive	4.67
Enforcement	4.5
Measurement of Results	5
Continuous Improvement	4.38

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## 4.4 Company D

### 4.4.1 Business Background

Company D is a financial holding formed in 2000 that has three main business units including wealth management, retail bank, and wholesale banking. Spanning the businesses in banking, securities and bills finance, company D is a full-functioning financial institution that provides customers with one-stop shopping services through consolidated distribution channels and integrated product lines.

### 4.4.2 Organization Background

Company D contains six committees, five management departments, four operation departments, and three business units. The committees include human resource and audit/compliance committee that report to the board of directors. The policy committee and the CRM committee report to the chairman. The president monitors administration and information integration committees. The five management departments include corporate planning, risk management, finance, corporate communication, and administration departments. The four operation departments include departments of operations, information technology, CRM, and logistics and business management. The three business units include wealth management, retail banking, and wholesale banking group directly reporting to the president.

### 4.4.3 CRM Implementation Structure

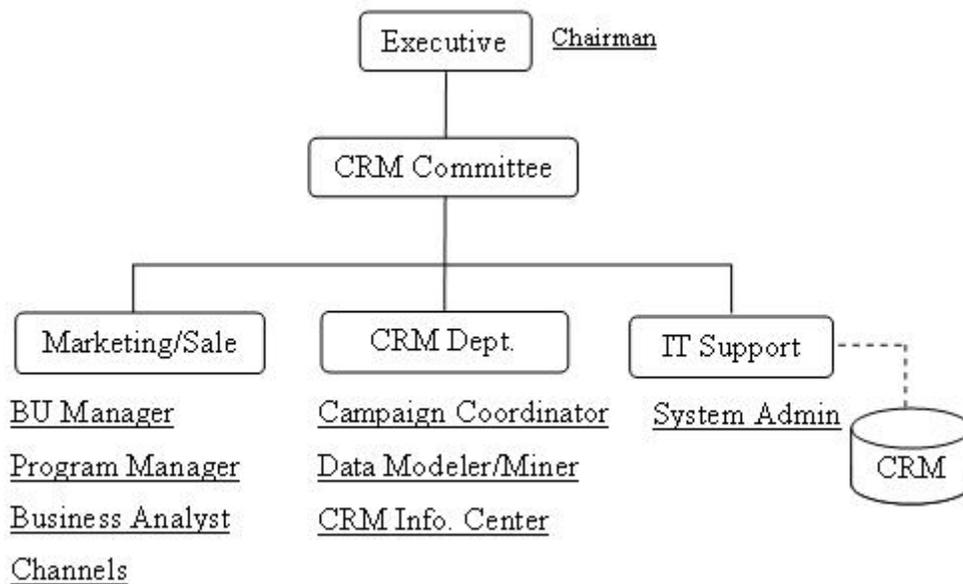
The analytical CRM physically belongs to the information technology department but the CRM committee directly controls the use of CRM. The CRM department is in charge of facilitating the use of analytical CRM. IT department merely supports the CRM committee to maintain the analytical CRM systems. Company D has implemented data warehouse for 5 years and data mining for 3 years. They all belong to the IT department and serve all business units. The data owners of CRM are these three business units. The call center has been completely implemented to serve all business units for eight years and is operated by the operation department. However, the following discussion about company D is based on the analytical CRM.

**Table 4-7. Implemented CRM Modules of Company D**

	<b>Modules</b>	<b>Years</b>	<b>Under</b>	<b>Serving scope</b>
<b>Analytical</b>	Data Warehouse	5	IT department	All business units
	Data Mining	3	IT department	All business units
<b>Operational</b>	Call Center	8	Operation dept.	All business units

The CRM organization includes five main roles that are executive, CRM committee, marketing/sales, CRM department, and IT support. The major works of the marketing/sales are campaign designs and data collection. The IT support maintains the systems. The CRM department is a coordinator between the marketing/Sales and IT support. The CRM department needs to help the marketing/sales personnel to develop campaigns with the concept of the CRM, creates data models, and directly uses CRM system to analyze or mining customer data according to the campaigns proposed by the marketing/sales and. The CRM department serves all three business units in company D. The CRM committee is initiated by the CRM department and reports to the chairman. Every business unit has a representative in this committee. If a business unit needs to contact the customers of other business units, the representative needs to propose their requirements of marketing plans. Because of the limited resources of marketing and customer data ownership, each business unit has to communicated and discuss with each other in the CRM committee.

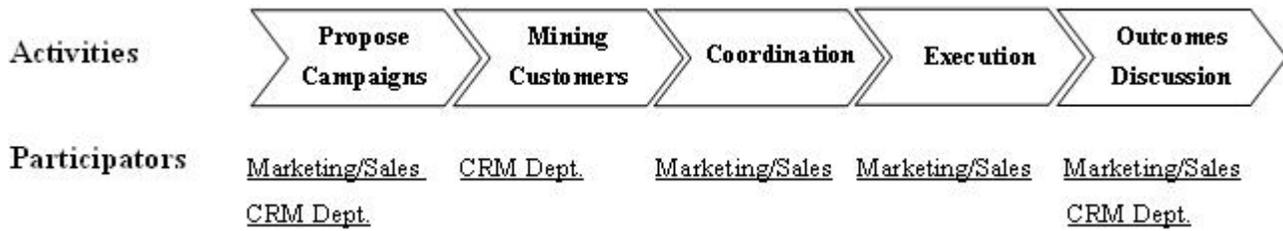
**Figure 4-7. The Organization of CRM Operation of Company D**



#### 4.4.4 CRM Operation

The analytical CRM is operated by the CRM committee. The general process of a campaign contains four sub-processes that are proposing campaign by the marketing/sales, mining customers from the CRM system, coordination, execution, and outcomes discussion. First, the representative of a business unit can propose the conception of a campaign including target customers, methodology, channels, predicted responses rate, cost, and revenue. In this stage, CRM department will help the representative to design a campaign with the CRM and mine the customer lists. If this campaign will contact the customers of other business units, the representatives have to communicate and coordinate with other business units in the CRM committee. Then, the business unit proposing this campaign will execute it. Finally, all representatives will discuss the outcomes of each campaign and bring up feedback.

**Figure 4-8. CRM Operation of Company D**



The customer data of campaigns can be classified into two categories including opened customer data and closed customer data. The closed customer data means that the targeted customers are owned by the business unit which proposed the campaign. On the contrary, the opened customer data means that the targeted customers are partially or fully owned by other business units. If the targeted customers are opened, the campaign needs to be discussed and coordinated in the CRM committee. In order to solve the conflicts between business units, the chairman declared that the customers who have been contacted will be released to other business units after six months.

#### 4.4.5 Change in Organizational Culture

Regarding intelligence generation, the marketers of company D determined customers' preferences by their experience in the past. However, they could analyze customers' preference by the analytical capability of the CRM. Furthermore, the CRM provides much information to facilitate market researches. Regarding the intelligence dissemination, the CRM system analyzes customer data and generates many reports for marketers to discuss with others. However, CRM partially affects the cross-departmental discussion. The cross-departmental CRM committee is another factor to facilitate cross-departmental discussion. Company D established a CRM committee which gathers the representatives of each business units to discuss new marketing activities and share their information and experiences. Regarding the responsiveness, the CRM could estimate the expected impacts and test the new product prices, and then company D could quickly response to competitors. Furthermore, the analytical and informational capabilities of CRM improve the speed of the campaign cycle and the product modification. In terms of the empowerment, the marketers would become very proactive and creative to design and propose new campaigns in market-oriented thinking because of the analyzed data of the CRM. Company D expects to provide front-end service personnel analyzed data of the CRM to improve the customer service. In the future, marketers could directly access the customer data of their department from the CRM. The CRM significantly affects the responsiveness resulted from the analytical, informational, and simulative capabilities of the CRM. However, because company D has not delivered the analyzed data of CRM to the front-end employees to serve customer, the CRM poorly affects the employee empowerment

The CRM has significant effects on marketing and sales, R&D, and production processes. Regarding marketing and sales processes, the marketers design marketing activities or products in market-oriented thinking and they could divide customers into smaller segments. Based on the market-oriented thinking, the representatives of business units attend the CRM committee and discuss the products and the opportunities of cross-selling that helps them to design products and portfolios. Marketers as well as spot market trends and customer needs through investigating customer need changes. In terms of the production process, because of the quickly market research, company D could shorten the time to market and increase the productivity. Obviously, the process performance is improved by cross-departmental CRM committee, market-oriented thinking, and investigating customer need changes.

However, because company D has not delivered the analyzed data of CRM to the front-end employees to serve customer, the CRM poorly affects the fulfillment process.

The market-oriented behavior change directly improves two market performance indexes including customer value and customer retention rate. The dynamic product modification satisfies different customer needs and then improves customer value. The marketers investigate customer need changes in different phases of customer life cycle. For example, when a customer tends to stop the products of company D, marketers may provide a new product after investigating the customer needs. Furthermore, they provide different portfolios or campaigns to retain customers.

The top management of company D fully supports the CRM project, initiates the CRM project, and facilitates the use of CRM. The top management shows great substantial commitment, enforcement of the CRM use, adequate measurement of results. The top management clearly understands why company D needs to implement CRM system. The top management's major expectations of CRM are to increase customer satisfaction, revenue, and data quality. The top management allocates much resource for the CRM project to implement and use CRM system. However, the CRM system still plays supportive role so the CRM leader has little power to enforce the CRM-related process changes. Although the top management cannot properly settle the conflicts between business units, he is striving to lead and facilitate the use of CRM. Company D has complete measurements of the CRM results. Furthermore, the customer-related indexes account for about 40% of balanced scored card of customer-related departments. The customer-related indexes at least account for 10% of balanced scored card of general departments. Thus, the customer-related indexes will directly drive employees to satisfy customer and increase customer value. Though company D has no adequate long term plan of the CRM, top management gives marketers feedbacks according to on-going plans. In conclusion, the top management of company D really supports the CRM use and pays much attention to the use of CRM.

**Table 4-8. The Questionnaire Result of Company D**

<b>Constructs</b>	<b>B</b>	<b>A</b>	<b>Growth</b>	<b>Positive Effects</b>	<b>Affecting Factors</b>
<b>Market-Orientation</b>					
Intelligence Generation	2.8	3.9	1.1	Market research	Analytical
				Investigate customer preference changes	Informational
Intelligence Dissemination	2.8	4.1	1.3	Cross-departmental discussion	Analytical
					Informational
Responsiveness	3.22	4.5	1.28	Response to competitors	Analytical
				Project execution	Simulative
				Product modification	Informational
Empowerment	3	3.38	0.38	Creative and proactive service	Analytical
					Informational

				Market-oriented thinking	
<b>Process Performance</b>					
Marketing and Sales	2	4	2	Customer segmentation	Market-oriented thinking
R&D	3	4.25	1.25	Spot market trend to develop product Product portfolio	Cross-departmental discussion Market-oriented thinking Investigate customer needs changes
Production	2.83	3.83	1	Productivity	Market-oriented thinking Market research
Fulfillment	3.5	3.5	0.5	CRM has little impact	
<b>Market Performance</b>	3.17	4	0.83	Customer value Customer retention	Market-oriented thinking Product modification Investigate customer needs changes
<b>Level</b>					
<b>Top Management Initiatives</b>					
Understanding	4.5				
Substantial Commitment	4.6				
Practical Executive	4.5				
Enforcement	4.75				
Measurement of Results	5				
Continuous Improvement	4.5				

**4.5 Company E**

**4.5.1 Business Background**

Company E is a financial holding that was founded in 2002 to provide coordinated services to its customers and to establish an international and multi-faceted financial entity. Bank E is the flagship organization; a securities company and an insurance brokerage were combined to form the new organization. Thereafter, company E set up a venture capital company and an asset management company. The business activities of the member companies are divided into two categories: consumer banking and corporate banking. This coordinated structure will drive resource sharing and cross selling. It will also ensure the provision of multi-faceted financial services across the board to all customers.

**4.5.2 Organization Background**

Company E established two committees under the board of directors, a management committee and a risk and capital management committee. Five office chiefs report to the president, including the chief risk officer, chief financial officer, chief administrative officer, chief information officer, and chief strategy officer. The president also controls two business groups: a retail banking group and a corporate banking group. Each group has a chief executive officer. The commercial bank E is a member of the financial holding E that has two presidents who report to the chairman of the commercial bank E. The two presidents are the president of the retail banking group and the president of the corporate banking group. The chairman also directly controls the information services group, the finance group, and the human resources group.

**4.5.3 CRM Implementation Structure**

Company E implemented the data warehouse with a consulting team in 1997. The IT department manages the processes and maintains the data warehouse system. The data mining system has been implemented for 5 years and it also belongs to the IT department. The BI (Business Intelligence) system has been implemented for 4 years. All three systems are controlled and maintained by the IT department. They serve every business unit except for branches. Marketers can use the system including data warehousing, data mining, and BI after training and examination. The credit card department implemented the call center in 1990. The call center serves only customers of the commercial banking group. The call center is operated by the credit card department. The following discussion about company D is based on the analytical CRM.

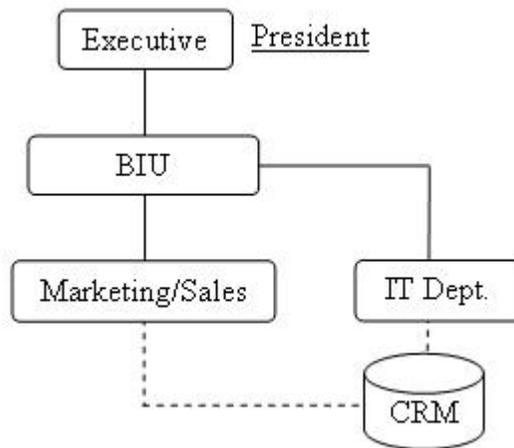
**Table 4-9. Implemented CRM Modules of Company E**

	<b>Modules</b>	<b>Years</b>	<b>Under</b>	<b>Serving scope</b>
<b>Analytical</b>	Data Warehouse	8	IT Dept.	Every business unit
	Data Mining	5	IT Dept.	Every business unit
	Business Intelligence	4	IT Dept.	Every business unit
<b>Operational</b>	Call Center	15	Credit Card Dept.	Commercial Bank

The IT department controls and maintains the CRM systems. Employees of the marketing and sales departments of every business unit are major end users who directly use the CRM to analyze customer

behaviors and preferences. The connection between the IT and marketing/sales department is the BIU that reports to the president of financial holding and is responsible for training end users, modifying the business rules, coordinating business groups, and helping business groups to establish the customer model. The employees can directly acquire the customer data for all financial holdings. That means marketers can independently form a campaign targeting the customers of other business groups without pre-discussion in a cross-departmental meeting. Regarding the problem of data ownership, company E established a department named Go Keeping that is responsible for establishing rules that limit the contact amount for each customer. If a marketer wants to form a campaign for cross selling, the marketer needs to follow the rules set up by the Go Keeping department.

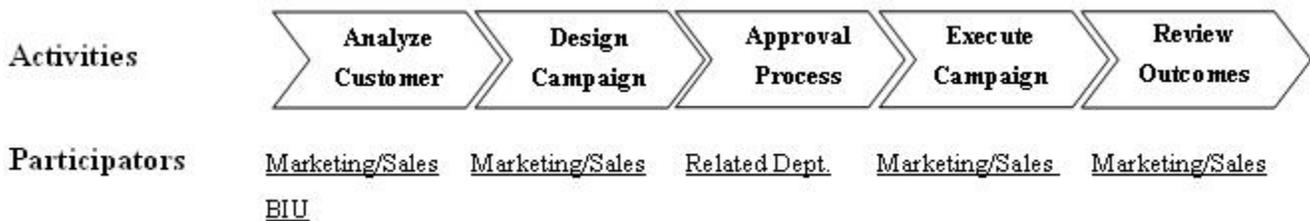
**Figure 4-9. The Organization of CRM Operation of Company E**



#### 4.5.4 CRM Operation

Campaign formation requires five steps. First, the BIU helps marketers to analyze customers and establish a customer behavior model with the CRM. Then the marketers start to design campaigns based on the CRM data analysis and other related information generated by other mechanisms. If the campaign targets the customers of other departments, the campaign needs to be approved by those related departments. Next, after the approval process, the marketer starts the campaign. Finally, the marketer needs to review the response rate and acceptance of the campaign and measure its outcomes.

**Figure 4-10. CRM Operation of Company E**



CRM usage differs among different business groups. In the credit card division, all marketers have to learn how to analyze customer information with the CRM. They have to be trained in using SQL commands. Each campaign needs to be formed based on the analyzed data from the CRM. In the wealth management division, an analysis department was established for analyzing customer information. Marketers in the wealth management division focus only on campaign design. The employees in the analysis department are more professional in their use of the CRM. The major activities of the analysis department are divided into two categories: active and passive analysis. Active analysis means that the analysis department periodically monitors some important KPI. If problems occur, the analysis department conducts a deep analysis as to the reasons why the problems happened. Passive analysis means that this department analyzes customer preferences by means of the CRM, or a survey if a project has specific requirements. The greatest difference between company E and companies C and D is that employees in company E do not have to discuss their campaign in a cross-departmental meeting when they are designing a campaign targeting the customers of other departments. The campaigns are entirely contained within their divisions.

#### 4.5.5 Changes in Organizational Culture

Because the analytical CRM has been implemented in company E for 8 to 15 years and the interviewees' seniority amounts to about 5 to 6 years, they could only rate questions about the conditions prior to five years ago. Thus, the timeframe is five years within company E.

The use of CRM didn't significantly improve market-oriented behaviors. CRM use merely led to minor improvements in intelligence dissemination, responsiveness, and employee empowerment. CRM use had no impact on intelligence generation. Company E has a market research department. The establishment of the market research department did not result from the CRM. However, the market research department could segment customers with the CRM and then conduct a survey. The market research department has many surveys that supplement the CRM's shortcomings. The CRM's analytical capability merely focuses on current customers and their current behavior, but company E needs more information about future customer behavior, market trends, competitors, and consumers. Thus, company E has to generate intelligence by means of other mechanisms.

Regarding intelligence dissemination, CRM merely provides some data that improve discussions and facilitate a common language for marketer discussions on future customer needs. However, in order to measure customer satisfaction, marketers could use CRM to winnow out customer lists before call centers contact customers. Thus, CRM use didn't significantly improve intelligence dissemination.

Regarding responsiveness, company E compares with competitors in many aspects besides prices. Company E has a complete process for product modification that is not totally affected by the CRM. Because of the CRM's inability to analyze competitors and future market trends, company E has many other mechanisms for that purpose. However, if the analysis department discovers a problem using the CRM system, it would deliver that information to product managers. Company E always focuses on customer needs through continuous tracking of KPI from the CRM. In terms of new product developments, there are many KPI about new products. Furthermore, CRM would produce some performance reports and analytical indices to continuously track conditions regarding new products, and to ensure that directions in product development match customer needs. The interviewees indicated that the CRM could select customer lists and analyze existing customers. However, that occurs only as a part of marketing activities.

Regarding the employee empowerment, CRM use brings more improvement than in the other companies. Company E pulls the CRM information into the call center and provides customer service personnel

with data about cross selling, but they cannot directly sell some products to customers because of legal restrictions. The CRM has more impacts on this aspect. Furthermore, the interviewees indicated that they were more product-oriented in the past. The purpose of the CRM implementation is to make employees more customer-oriented. The results are positive but they cannot quantify the outcomes.

Market-oriented behaviors significantly affect the process' performance. Regarding the marketing process, because employees became more market-oriented they would analyze customer data when designing a campaign. They would target the customers according to the analyzed CRM information and form micro customer segmentations.

Regarding the R&D process, the marketers periodically reviewed directions in product development by means of the CRM so that company E could confirm that directions in product development matched customer needs and market trends. Marketers discussed future customer needs based on the information generated by the CRM, and therefore they could develop products in a more dynamic way. Products became more varied and complicated.

Regarding the production process, the CRM provides some analyzed data but it is hard to predict market trends from a dynamic market. However, employees are more proactive in serving customers such that company E could quickly respond to customer problems in production. The production process is similar to the marketing process in that it needs analyzed data from the CRM to make decisions.

CRM use doesn't lead to significant improvement in the fulfillment process. For example, because company E pulls the customer lists to the call center, they can say happy birthday when answering the customer's phone call. Though service personnel could acquire some information from the CRM, the response time is not fully affected by the CRM data.

Regarding the market performance, interviewees indicated that the market performance indices are a fundamental employee responsibility. There are many impacting factors, but the market-oriented behavior is just a part of process. There are many other factors that impact market performance. Furthermore, market-oriented behaviors have been combined into many standard operation processes which need CRM to analyze customer data. So far, many indicators are improved but they are impacted by many factors. Only one interviewee indicated that the cross-selling rate was improved by focusing on customer needs.

Company E's top management clearly understands why the company needs to implement the CRM. The top management's goal is to make employees more market-oriented. However, the resources for implementing and maintaining the CRM system are scarce. The chairman of the financial holding company allocates little time to attending CRM-related meetings but the vice presidents of all divisions are very active in attending CRM-related meetings.

When the CRM project was initiated, the executive of the CRM project had great power to change the CRM-related processes and the implementation style was top-down. However, the division of labor is very detailed and the CRM-related processes are now well organized. Thus, CRM-related processes now operate smoothly and the leader of the CRM does not need to extensively modify the related processes. Regarding enforcement, the top management actively leads, encourages, and facilitates CRM use, and properly deals with the departmental conflicts. However, market-oriented behaviors have been combined into the standard processes of many functions. Employees actively use the CRM to form a campaign and make decisions based on analyzed data from the CRM. Company E has adequate measurements to the measure outcomes of CRM use and the customer-related indices account for 15 to 20 percent of the balanced score card. An IT manager indicated that the CRM system is still fragmented

in its overall perspective, but the marketers believe that the company has a complete CRM system. This means that there is still a gap between IT staff and end users. The IT staff considers that the CRM system still needs to be strengthened and extended but that the marketers believe that the CRM system has been well planned. Company E could improve and respond to the lack of plans following goal measurement, but the top management has to give more feedback to marketers. Company E's top management clearly understands the purpose of the CRM implementation but doesn't allocate sufficient time to attend the CRM-related meetings and resources to manipulate the CRM.

Because of decentralization in CRM use, marketers can acquire customer data for the whole company by themselves. The top management has to allocate sufficient resources to train marketers in data mining skills. In order to solve conflicts between departments, company E needs a mature mechanism to classify customer data and authorize departments to acquire customer data. The CRM has not contributed to significant effects on market-oriented behavior. Thus, the top management needs to transfer the focus to process performance and standardize processes by embedding market-oriented behaviors.

**Table 4-10. The Questionnaire Result of Company E**

<b>Constructs</b>	<b>B</b>	<b>A</b>	<b>Growth</b>	<b>Positive Effects</b>	<b>Affecting Factors</b>
<b>Market-Orientation</b>					
Intelligence Generation	4.3	4.5	0.2	CRM has little impact	
Intelligence Dissemination	4.18	4.61	0.43	Discuss customer future needs	Analytical
Responsiveness	4.3	4.55	0.25	Focus on customer needs Review the development directs	Analytical
Empowerment	3.73	4.3	0.57	Proactive customer service Market-oriented thinking	Informational Analytical
<b>Process Performance</b>					
Marketing and Sales	1.8	3.8	2	Customer segmentation	Market-oriented thinking
R&D	2.55	3.55	1	Spot market trend Dynamic R&D	Review the development directs Discuss customer future needs
Production	2.9	3.7	0.8	Response to customer problems	Proactive customer service
Fulfillment	4.3	4.3	0	CRM has little impact	
<b>Market Performance</b>	<b>3.8</b>	<b>4.3</b>	<b>0.5</b>	<b>Cross-selling rate</b>	<b>Focus on customer</b>

	Level
<b>Top Management Initiatives</b>	
Understanding	4.67
Substantial Commitment	3.8
Practical Executive	4.67
Enforcement	4.25
Measurement of Results	4
Continuous Improvement	4.06

#### 4.6 Propositions Analysis

The table 4-11 summarizes the interview results. Companies A and B are state-run and they focus on the call center. In these two cases, top management clearly understands the reasons for CRM implementation, but the top management didn't really allocate adequate resources to the CRM or to attending related meetings. Thus, the lower top management initiatives contributed to lower improvement on behavior changes in market-orientation. However, company A had more market-oriented behavior changes than company B because of the leadership of the CRM project leader. The leader actively enforced CRM use and cross-departmental discussion and solved conflicts. Although company A only implemented the call center, market-oriented behaviors were improved because the leader developed a cross-selling campaign executed by the call center. Employees in related departments learned from the cross-selling experience, cross-departmental discussion, conflict resolution, and information gathering. In company A, the CRM use had more effect on market-oriented behaviors but process performance and market performance were not significantly improved. This resulted from the lesser utilization of cross-selling campaigns. That cross-selling campaign, for company A, was the first. This campaign affected the market-oriented behaviors of employees but it didn't impact process and market performance. If company A continuously designs this kind of campaign, however, the organization will acquire more benefits in its processes and become more market-oriented.

Regarding company B, its poor market-oriented behaviors led to poor process and market performance. The top management of company B needs to appoint a powerful project leader who can enforce and lead CRM use. The top management also has to facilitate employee learning from other organizations that use call centers effectively.

Companies C and D share many common points: they are private companies, they all implemented data warehousing, data mining, and a call center, they all established a cross-departmental CRM committee, they are new to the use of analytical CRM, and their top management supports CRM use. In these two cases CRM use led to significant improvement in market-oriented behaviors. Because of the top management's support and the cross-departmental CRM committee, employees can effectively and efficiently use the CRM. Therefore, it's very important for top management to establish a cross-departmental CRM committee in which marketers discuss their campaigns, share their experiences, and discover opportunities for cross selling.

The CRM system needs many top management initiatives for effective leverage. However, they are still learning how to effectively use data mining. If they enjoy powerful IT support of modeling, then CRM use will contribute to more advanced benefits. Market competition is another factor affecting CRM use. Because of strong market competition, companies are forced to be more market-oriented. In these two cases, the positive effects of market-oriented behaviors led to significant improvement in process performance. It is obvious that more top management initiatives lead to more benefits in market-oriented behaviors and process performance.

**Table 4-11. Summarized Scores of Interviews**

		A		B		C		D		E	
<b>Intelligence Generation</b>	<b>B</b>	2.5	0.5	2	0.4	2.6	1	2.8	1.1	4.3	0.2
	<b>A</b>	3		2.4		3.6		3.9		4.5	
<b>Intelligence Dissemination</b>	<b>B</b>	2.37	0.66	2.6	0.5	2.4	1.7	2.8	1.3	4.18	0.43
	<b>A</b>	3.03		3.1		4.1		4.1		4.61	
<b>Responsiveness</b>	<b>B</b>	2.76	0.59	2.88	0.52	2.89	1.55	3.22	1.28	4.3	0.25
	<b>A</b>	3.35		3.4		4.44		4.5		4.55	
<b>Empowerment</b>	<b>B</b>	2.99	0.42	2	0.38	3	1.13	3	0.5	3.73	0.57
	<b>A</b>	3.41		2.38		4.13		3.5		4.3	
<b>Top Mgt.</b>		3.73		3.13		4.67		4.59		4.24	
<b>Process Performance</b>	<b>B</b>	2.66	0.56	2	0.43	2.94	1	3.06	0.88	2.89	0.95
	<b>A</b>	3.22		2.43		3.94		3.94		3.84	
<b>Market Performance</b>	<b>B</b>	2.7	0.67	2.33	0.33	3	0.91	3.17	0.83	3.8	0.5
	<b>A</b>	3.37		2.66		3.91		4		4.3	

Company E has many properties including that it has implemented the analytical CRM for 15 years. All marketers need to learn how to directly use the CRM. All marketers could directly acquire customer data from other departments. All marketers could design a campaign in their department that targets customers of other departments when the campaign is approved by those related departments. Marketers consider the CRM to just play a supportive role in their standard processes. Many processes are combined with the CRM's use. Marketers need to make decisions based on the analyzed data from the CRM in a given phase of the operation process. When company E implemented the CRM, top management supported the project in many aspects including resources, time, the power of executives, and feedback. However, the CRM has become a part of the value chain process and a part of the culture, and therefore the top management does not currently need to pay much attention to the CRM. When company E implemented the CRM, CRM use truly improved market-oriented behaviors. Now the CRM use, however, cannot lead to further significant improvements in market-orientation. Because company E has become a highly market-oriented company and the CRM is combined into the operation processes and market-orientation has become a part of the institutional culture, process performance has exhibited significant improvement. However, the interviewees indicated that the market performance is affected

by many factors. Market-oriented behavior is just one of these factors. Thus, market-oriented behaviors have little impact on market performance.

4.6.1 Proposition 1 – Confirmed with Different Degree of effects noted

All cases experienced organizational and individual behavioral changes through the use of CRM with different degrees of change noted. Companies that use CRM for customer service tend to note changes in the call center areas. Companies use CRM for analytical decisions in the head office tend to note high changes towards market-orientation. Companies use CRM for various customer relationship development processes tend to note little changes in the market orientation due to the already-existed market-orientation culture.

4.6.2 Proposition 2 – Confirmed with Aligned Pattern with Behavioral Changes

All cases experienced process changes aligned with the effect of market-orientation behavioral changes. Change in market-oriented behavior has a positive impact on the performance of value chain processes. Such as the table 4-12, the higher market-orientation behaviors before CRM implementation lead to higher degree and change of process performance. The higher change in market-orientation behaviors also leads to higher degree and change of process performance. However, the lower change in market-orientation behaviors of company E leads to higher process performance. Because company E’s culture has become highly market-oriented there is no room for change. However, the higher market-orientation before CRM implementation of company E still contributes to higher process performance.

**Table 4-12. The Effects of Market-orientation Behaviors on Processes**

		A		B		C		D		E	
<b>Intelligence Generation</b>	<b>B</b>	2.5	0.5	2	0.4	2.6	1	2.8	1.1	4.3	0.2
	<b>A</b>	3		2.4		3.6		3.9		4.5	
<b>Intelligence Dissemination</b>	<b>B</b>	2.37	0.66	2.6	0.5	2.4	1.7	2.8	1.3	4.18	0.43
	<b>A</b>	3.03		3.1		4.1		4.1		4.61	
<b>Responsiveness</b>	<b>B</b>	2.76	0.59	2.88	0.52	2.89	1.55	3.22	1.28	4.3	0.25
	<b>A</b>	3.35		3.4		4.44		4.5		4.55	
<b>Empowerment</b>	<b>B</b>	2.99	0.42	2	0.38	3	1.13	3	0.5	3.73	0.57
	<b>A</b>	3.41		2.38		4.13		3.5		4.3	
<b>Process Performance</b>	<b>B</b>	2.66	0.56	2	0.43	2.94	1	3.06	0.88	2.89	0.95
	<b>A</b>	3.22		2.43		3.94		3.94		3.84	

When cross-departmental and individual behaviors become more market-oriented, the value chain process improves in many aspects. Marketers can more precisely target customer micro-segments from a market-oriented perspective. They think about customer preferences and the behavior of different segments when they are designing a marketing activity. The market-oriented behavior change also affects the R&D process. Companies could precisely spot market trends for product development, design more complicated products for different customers, and even dynamically develop products. The market-oriented behavior change further increases productivity and improves the response time to

customer problems. Finally, the fulfillment process will also have improved customer response time. If service personnel can acquire information from the CRM, the fulfillment process will be significantly improved.

#### 4.6.3 Proposition 3 – Confirmed

As presented in table 4-12. The market-orientation of a company is highly aligned with its market performance. Companies that have higher ranks in market-orientation behavior seem to perform better in the market. Several business managers reserved their opinion about the contribution of CRM effects on market performance because the market has changes dramatically in the past three years the performance can be influenced by many other factors such as reorganization, merging with other market owners, and unstable customers; market-oriented behavior is just one affecting factor. High market competition enables companies to be more focused on markets and customers. Merge and acquisition alter the market scope while many external conditions can trigger company move in different segments. However, no matter how changeable the situation is companies reply on both analytical and operational CRM to sustain the competitive edge.

**Table 4-13. Market Performance**

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>Market orientation</b>	3.18	2.82	4.0	4.0	4.45
<b>Market performance</b>	3.37	2.66	3.91	4	4.3
<b>Market ranking</b>	10	8	5	3	1

#### 4.6.4 Proposition 4 – Confirmed with Different Types of CRM Use and Top Management Initiatives Noted

The greater the extent of top management initiatives the greater the positive impact of CRM use on market-oriented behaviors. In this study, cases received higher and more top management initiatives tend to experience more changes towards market-orientation. The more top management initiatives also lead to higher degree of market-orientation behaviors before CRM implementation. Because company E’s culture has become highly market-oriented there is no room for changing market-orientation behaviors. However, the more top management initiatives sustain higher degree of market-orientation behaviors before CRM implementation. The top management in many aspects plays a critical role in the use of CRM. First, he needs to understand the purpose of CRM implementation and to establish a vision which is the fundamental requirements of CRM use. Second, the top management would need to attend CRM-related meetings and guide marketers in channel and segment development. Then, the CRM project leader would need sufficient power request changes in CRM-related processes. Also, adequate measurements which link tightly with the CRM strategy are another way for driving the CRM transition. In all kinds of CRM use the business manager would need to establish a cross-departmental committee in which marketing campaigns and cross selling opportunities can be discussed, and conflicts of interests among product lines, business units, and channels can be communicated and resolved. Additionally, the top manager would need to allocate adequate resources to train employees in the skills of data mining, and query and hold benchmark activities in the learning of effectively CRM use.

**Table 4-14. The Effects of Top Management Initiatives on Market-orientation Behaviors**

		<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>		<b>E</b>	
<b>Intelligence Generation</b>	<b>B</b>	2.5	0.5	2	0.4	2.6	1	2.8	1.1	4.3	0.2
	<b>A</b>	3		2.4		3.6		3.9		4.5	
<b>Intelligence Dissemination</b>	<b>B</b>	2.37	0.66	2.6	0.5	2.4	1.7	2.8	1.3	4.18	0.43
	<b>A</b>	3.03		3.1		4.1		4.1		4.61	
<b>Responsiveness</b>	<b>B</b>	2.76	0.59	2.88	0.52	2.89	1.55	3.22	1.28	4.3	0.25
	<b>A</b>	3.35		3.4		4.44		4.5		4.55	
<b>Empowerment</b>	<b>B</b>	2.99	0.42	2	0.38	3	1.13	3	0.5	3.73	0.57
	<b>A</b>	3.41		2.38		4.13		3.5		4.3	
<b>Top Mgt.</b>		3.73		3.13		4.67		4.59		4.24	