

# Business Value of E-Crm: A Multi-Case Study of Applications in Manufacturing and Service Industry of Taiwan

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**Abstract:** Since it is a well known fact that the cost to attract a new customer is approximately 5~10 times more than the cost of keeping existing clients for the enterprise, it is a very crucial issue for the business to focus on the need of customer relationship management. Therefore, e-CRM (electronic CRM) is widely accepted recently and the adopting rate in certain organization is up to 49% annually.

In this study, a systematic multi-case study in Taiwan is performed for the B2B manufacturing industry and B2C service business in order to find the critical function and important issues for e-CRM in those businesses. In addition, the efficiency factors for e-CRM are analyzed since the roles of the clients in B2C and B2B are different, i.e., the organizational and personal behavior is compared.

The preliminary results show e-CRM in Taiwan has been successfully improving the service for B2B and B2C and promoting closer relationship for both the sellers and buyers. The target of new customer acquiring is also improved effectively.

**Keywords:** e-CRM, Multi-Case study, manufacturing, service business.

## I. Introduction

Customer Relationship Management (CRM) has changed dramatically throughout its dynamic transformation from a conceptual framework to a core business function. CRM isn't just the domain of gurus or a software package anymore. To succeed in managing customers, managers must address e-CRM as part of their core operations. E-CRM is not just customer service, self-service web applications, sales force automation tools or the analysis of customers' purchasing behaviors on the internet. E-CRM is all of these initiatives working together to enable an organization to more effectively respond to its customers' needs and to market to them on a one-to-one basis.

## II. Literature Review

CRM has long been hailed as a way for companies to find, influence, and retain customers. CRM solutions have evolved to go beyond simple contact and sales management

application to now link sales, marketing and customer support operations into a single, cohesive platform. E-CRM concept provides the ability to capture, integrate, and distribute data gained at the organization's Web site throughout the enterprise.

A company's continued success comes from two groups: new customers and repeat customers. Since it always costs more to attract new customers than to retain current customers, customer retention is more critical than customer attraction. The key to customer retention is customer satisfaction [1].

E-CRM expands the traditional CRM techniques by integrating technologies of new electronic channels, such as Web, wireless, and voice technologies, and combines them with e-business applications into the overall enterprise CRM strategy [2]. In other words, what the traditional CRM delivers can be considered only a fraction of an e-CRM solution.

E-CRM applications have the power to create an enormous amount of value by allowing companies to collect, organize, and disseminate a wealth of customer information. The e-CRM concept is designed to understand who the customers are and the products that are of interest to them—only then is it possible to provide them with the products and services they want. A more sound approach is to install a comprehensive software platform of the following five applications that together enable the e-CRM business process.

Essentially, this model shows how a firm can develop and manage customer relationships to enhance competitiveness and create a strategic advantage. It is also a powerful tool for building stronger and more loyal customer relationships [3].

## III. The Outcomes of Implementation

Enterprises should change their managerial approaches and business process. They can not only simplify the transaction and customer service process, but also provide customers with more considerate customized services which can make differences from others, enhance customer loyalty, decrease the steps of sales, and reduce the sale cost. The well outcomes after introducing e-CRM of the four selected case companies are arranged as follows:

**Advantech** <http://www.advantech.com/>

Advantech is an enterprise which has the most successful

e-business website for his automated products in the world. 80% of incomes until 2001 are from his electronic business operation. The beneficial results after implementing e-CRM are as follows:

1. Raise customer loyalty and profits
2. Reduce the cycle time of new products and serve the target customers in the most economical way.
3. Steeply decrease the transaction cost, service cost and service time.
4. Own a stable e-Business platform
5. Customer classification and the detailed information of the top 15 customers will be independently further analyzed
6. Automated pricing process and the order can be integrated with ERP system
7. Enhance the productivity of service engineering department
8. Organizational learning
9. Reduce 22% of sales and marketing cost

**Arima** <http://www.arima.com.tw/>

Arima used to be the government-chosen enterprise for setting a model of applied development planning, the planning period was from July 1 of 2002 to the end of 2003, the implementation performance are as follows:

1. Raise the service quality and satisfaction of customers
2. Always know the repair condition and remain the repair records
3. The transparency of inventory volumes is helpful to reduce global inventory and make it more elastic in control. The delivery speed and quality are also quite raised.
4. Improve and simplify the inside operation process of enterprises. Consolidate the accounting management and auditing.
5. Quick information acquirement can help managers have the ability of quick response, information transparency, and know the latest situation in real time.
6. Participate the supply chain of electronic business hosted by Arima to make suppliers, transporters commonly take part in this supply chain and their relationship tighter with global market.
7. Follow the standard of Rosettanet, and make suppliers and transporters do not need to introduce other operation systems due to different operation and information standards.
8. Provide Arima with the information from HUB, to make both of them have more time and information to prepare materials.
9. Base on the document of forwarder RN 3B3/3B18 and the real-time information exchange of merchandise delivery tracing, the related operation staffs in Arima can easily understand the shipment status.
10. Arima provides different solution policies in the aspect of B2B, and reduces the introduction cost of related projects through the standardization of specification.

**Fareastone** <http://www.fetnet.net/>

The benefits that e-CRM brought in the case companies, Fareastone, are illustrated as follows:

1. Decrease the cost of business operation
2. Implement the marketing affairs and raise service quality
3. Raise the satisfaction of customers
4. Adjust the structure of staffs
5. Trend and fashion, and the image improvement of enterprise

**DaimlerChrysler Taiwan** <http://www.mercedes-benz.com.tw/>

DaimlerChrysler Taiwan used to be suffered from low efficiency of car repair, bad management of part inventory, and unclear information of customers. However, the customers of DaimlerChrysler Taiwan currently are able to acquire information they need in three minutes through e-CRM. It totally improves the dilemma which always takes 3-5 days for data mining and other analysis by IT staffs. The system DaimlerChrysler Taiwan set up basically owns four critical dimensions of performance:

1. Become a kind of assistant tool for marketing
2. Understand consumers and self product.
3. Performance analysis of repair factory
4. Part inventory control

#### IV. Synthesized Benefits and Analysis

The conceptual structure of e-CRM is at least composed of the following five concepts: application of information integration, application of customer analysis, application of sales promotion management, application of real-time decision making, and application of individualized messages etc. The e-CRM system of the research case in the paper is just constructed from the above five concepts, and then do customization for each enterprise base on their requirements.

According to the above four cases, the five success factors and four advantages of e-CRM can be arranged:

Some CRM research firms report that nearly 70 percent of CRM implementations fail to deliver measurable benefits. In contrast, IBM research has found that companies that focus on and prioritize critical activities actually increase the likelihood of CRM success by more than 70 percent—flipping the ratios.

The five success factors or keys to doing e-CRM right are:

- Realize your e-CRM value case for change.
- Identify and prioritize your e-CRM value propositions.
- Design your new e-CRM operational blueprint.
- Construct your transformational multi-generational roadmap and implement your solutions.
- Build support for your e-CRM efforts and stay on track through sponsorship, governance, and change management.

And the four advantages of e-CRM are shown as follows:

### Efficiency

Efficiency comes from the correct and rapid operation process without any waste. For example: The traditional manual process is replaced with automation, and the accomplishment of information rationalization. In the above ways, enterprises can increase their margin of profit and reduce cost.

### Benefit

Benefit comes from the better or the more simple operation process. For example: the more income growth brought by new software application, mixed sales, telephone service center, interactive sales tool, customer collaboration, product tuning tools, and other sales methods without any participation of salesmen, are all the empirical benefit-oriented application

### Cost saving

DaimlerChrysler Taiwan made use of e-CRM to effectively lower the inventory; Advantech also used it to reduce 22% of sales and marketing cost, Arima made his product deployment and the check-up of electronic orders in streamline shape. Undoubtedly, e-CRM does not only makes the sales process smooth and improved, but also shorten the delivery cycle time from the initial ordering to the final shipment.

### Invisible benefit

The individual behaviors and organizational behaviors about the introduction of e-CRM are quite different. In the organizational behavior aspect of B2B, the relationship between the upstream and the downstream industries becomes more solidified due to owning the same information communication platform of e-CRM system. Besides order taking, the communication interaction among systems and the information transparency go one step further. Invisibly the industries built a higher entering barrier from other industries. For instance, Arima applied the standard of Rosettanet to make its suppliers and transporters not necessary to introduce other operation systems. Moreover, organizations emphasize the coordination and the convenience of system use between the upstream and the downstream industries. In the individual behavior aspect of B2C, customers tend to pay more attention to their feeling. The pleasure shopping atmosphere can be helpful to customer return. Mehrabian indicated that three key emotional variables that may determine behavior are pleasure, dominance, and arousal [4]. However, in other researches, It is also illustrated that while convenience and control are at the top of consumers' lists of benefits from online shopping [5][6], enjoyment of the shopping experience may also be an important determinant of customer loyalty [7].

It is easily understood that four case companies used different kinds of methods to do their e-CRM, like the sales promotion messaging of cell phone in Fareastone,

DaimlerChrysler Taiwan made the utilization of information integration of front-end (client) to manager the inventory, Advantech used e-CRM to enormously extend his customer service time and take advantage of its application on information integration to allow the customers to inquire their RMA returned purchases from internet, which reduce lots of complaints of customers and delay of returned purchases.

In other words, the case companies transformed their conventional static and single-way customer services of CRM limited in the factors of time and space, to the real-time and two-way customer services of e-CRM without any limitation of time or space. They also hope to introduce more functions in e-CRM system so as to enhance their competency. In the future, the height of business intelligence decides the success or failure in markets. If enterprises can make use of e-CRM to make a recheck up for its business process, it is believed that enterprises are able to increase the benefit of its investment and create more competitive edges.

## V. Conclusions and Future Works

E-CRM is the edge tool that can help enterprise to raise its competitive advantage in electronic business. To make conclusions for the research, the business added value of the investment in e-CRM can be found as follows:

- (1) Raise the satisfaction of customers
- (2) Reduce cost
- (3) The information transparency can improve the managerial ability of inventory control
- (4) Improve the relationship between collaboration partners and customers
- (5) Heighten the entering barrier
- (6) Improve the image of enterprise

Taiwanese manufacturing industries and service industries currently obtain lots of benefit and advantage after introducing e-CRM, especially in the aspects of raising the satisfaction of customers and increase the proportion of market holding. In the future, if some advanced technologies such as MVPN and Push mail receiving, can enhance the mobility of staffs to achieve the goal of enterprise mobilization easier; the use of RFID can trace the staffs, movement of merchandises, the volume of inventory, and position vehicles, to further improve managerial performance or the Location Based Service. It helps enterprises to know all kinds of information well in this moving process so that the business efficiency can be increased..., all the above can be more beneficial to the introduction performance of e-CRM. Moreover, the selection of the industries in the paper is limited in the Taiwanese manufacturing and service industries, In the future, more different kinds of industries in Taiwan or the same kinds of industries in other foreign countries can be other research issues, and then it is believed that more enlightenment from those related researches can be found.

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