CRM and the use of internet in Electric & Machinery industry-TECO

Chiamin Li

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Supervisor: Lars Steiner
Abstract

Everyone already knows what the customer relationship management is and it has been improved and managed by the internet, called electronic customer relationship management. The information technology, such as the internet, is making it easier for customers and industries. The purpose of this study is to analyze the customer relationship management in TECO Electric & Machinery Co., Ltd. and how this could be improved via the internet with four research questions. Additionally, the primary information was conducted by a face-to-face interview with the managing director who has empirical experiences in that field and qualitative approach was utilized. The theories about the customer characteristic, customer involvement, the future customer relationship management, and the use of internet were used. In TECO, the main customer characteristics are financially attractive customers and the customer in a close relationship and the customers usually involved in the development stage of new product development processes. For the future orientation, TECO may be able to pay attention on people-driven application and take Amazon as an example in the use of the internet. Moreover, the probability of further research was discussed in this study.
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1. Introduction

1.1. Background of customer relationship management

According to Gummesson (2002) and Hughes (2003), Customer relationship management emerged in the marketing world in early 1990s. The recognitions of customer relationship management (CRM) have been widespread since the late 1990s. Numerous management concepts emerge and become popular quickly by promising to change fundamentally the operations and the organization of the corporation (Rado Kotorov, 2003). Researchers and practitioners both in the academic area and the business field enthusiastically have shared their viewpoints and experiences in applying CRM (Anton, 1996). According to Croteau & Li, (2001), CRM is actually a tremendous step forward of about 6 billion population and Greenberg (2001) stated that in order to understand CRM, you must also understand the changing nature of customers because customers are not what they used to be.

CRM builds on the philosophy of relationship marketing and the emphasis of relationships, as opposed to transactions, is redefining how companies are interacting with their customers (Gummesson, 1999). Intense competition for market share in today’s market required managers to attend to customer retention and the hows and whys of a patron returning and continuing to repurchase (Pritchard and Howard, 1997). According to Athanassopoulo (2000), in an era of mature markets and intensive competitive pressure, more and more companies realize that their most precious asset is the existing customer base. The notion that value can be created by cooperation has led marketing managers to search for “win-win” positions as a way to enhance profitability through collaborative value creation (Anderson et al, 1994). Gordon (1998) also stated “that relationship marketing is the ongoing process of identifying and creating new value with individual customers and then sharing the benefits from this over a lifetime of association. It involves the understanding, focusing and management of ongoing collaboration and sharing through interdependence and organizational alignment”.

CRM is a strategic and management concept in creating customers’ value. According to Thompson (2004), CRM is a business strategy to acquire, grow and retain profitable customer relationships, with the goal of creating a sustainable competitive advantage. He also stated that now CRM is emerging as a critical strategy simply
because relationships are coming to the forefront of the competitive battleground.

According to Chaffey et al. (2003), CRM is an approach towards building and keeping long term relations with the customers. There is a strong competition among businesses today therefore managers and marketers are agreed on developing long term relationships with their customers for the development and survival of the companies (Zineldin 2005). Undoubtedly, CRM has gained its importance through the statement that acquiring a new customer is several times more costly than retaining and selling additional products to existing customers (B. Baesens, 2002). An IBM advertisement noted, “it costs six times more to acquire a new customer than to keep an existing one”. Most of the companies whether B-to-B, C-to-C, manufacturing and service companies rank customer service as their top three priorities. The importance of CRM was pointed out clearly.

1.2. The presentation of TECO

TECO has expanded from a motor manufacturer to many-sides developed company. During the past fifty years, TECO not only keeps putting much efforts on improving technology in order to produce advanced motor equipments but also a leading manufacturer of IT system, electronic communication business, and etc. Nowadays, TECO is a global, well-known, and outstanding company and has business among Asia, America, and Europe. Meanwhile, TECO also entered strategic alliance with other companies and set up e-Value commence Co., Ltd., in 2000 because TECO realized the importance of e-commence. More and more online services come out and provide better convenience to customers as well.

1.3. Definitions of CRM and ECRM

The definitions and descriptions of CRM that different authors and authorities use vary considerably, signifying a variety of CRM viewpoints (Adrian Payne & Pennie Frow 2005). According to Wilson (2002) CRM is a concept that enables an organization to tailor specific products to each individual customer according his or her need. In the most advanced scenario, CRM may be used to create a personalized, customized, one-to-one experience that will give the individual customer a sense of being cared for, thus opening up new marketing opportunities based on the preferences, previous behavior and history of the customer (ibid). Wilson (2002) also stated that CRM technology initiatives are most commonly implemented in functional areas such as customer support and service, sales and marketing to optimize profitability and revenue. CRM is an infrastructure that enables the delineation of and
increases in customer value, and he correct means by which to motivate valuable customers to remain loyal-indeed, to buy again (Dyche, 2001 p.4). CRM is an enterprise-wide mindset, mantra, and set of business processes and policies that are designed to acquired, retain and service customers. Additionally, CRM is the values and strategies of relationship marketing- with particular emphasis on customer relationships- turned into practical application (Gummesson 2002 p. 3).

With respect to electronic customer relationship management (ECRM), according to Chaffey et al. (2003, p. 218-223) ECRM is defined as the use of databases, personalized web access to the databases (internet by employees and extranet by customers), e-mail and workflow to achieve CRM objectives. Purba (2001, p. 111) concludes that ECRM is the application of e-technology (or internet-based technology) to achieve CRM objectives. ECRM can be defined more simply. According to Dyche (2001), CRM is Web-based. ECRM can also be considered as the use of the internet and IT applications to manage customer relationships (Chaffey D., 2002). Kotorov (2002) defined ECRM as the application of information and communication technology to increase the scale and scope of customer service. Another definition of ECRM presented by Kelly et al., (2003) is that ECRM refers to the marketing activities, tools and techniques delivered over the internet (using technologies such as web sited and e-mail, data-capture, warehousing and mining) with a specific aim to locate, build and improve long-term customer relationship to enhance their individual potential.

1.4. The internet and CRM

The internet has dramatically influenced around the world in the past 30 years and provides the foundations for email, e-commerce, and World Wide Web (WWW). According to Turban et al., (2000) the internet is a public and global communication network that provides direct connectivity to anyone over a local area network (LAN) or Internet Service Provider (ISP). The internet really builds a network that cross over the geography and score such as a door. As long as you open that door, you can go to the place you want to go and no matter how far it is and when you want to go. According to Sharp (1998), today, the internet is an extremely complex network with thousands of geographically dispersed networks including more than 1000,000 individual computer networks owned by governments, corporations, universities and non-profit groups. The internet is, effectively, a free form of global communication resource. Recent developments in new information and communications technologies such as internet and high-speed broadband connections have facilitated collaborative innovation with customers.
Pan and Lee (2003) attempted to make a distinction between the terms CRM and ECRM; CRM was considered an approach or business strategy providing seamless integration of every area of business that touches the customer-namely, marketing, sales, customer service and field support - through integration of people, process, and technology. ECRM on the other hand, taking advantage of the revolutionary impact of the internet, ECRM has thus broadened it and it now expand 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 (ibid). CRM is becoming a priority because information technology (IT), particularly, the internet, is making it easier for customers to find alternate providers for products and services. However, when appropriately utilized, IT can help retain customers by building and managing the relationship (J.D. Wells, W.L. Fuers and J. Choobineh, 1999).

1.5. Research purpose

According to Sims 2000, Anderson Consulting found a typical $1 billion high-tech company can gain as much as $130 million in profits by improving its ability to manage customer relationships and also found that as much as 64% of the difference in return on sales between average and high performing companies is attributable to electronic customer relationship management (ECRM) performance. Improvements in the overall customer experience lead to greater customer satisfaction, which in turn has a positive effect on the company’s profitability. The following benefits can be achieved with a proper ECRM implementation: increased customer loyalty, more effective marketing, improved customer service and support, greater efficiency, and cost reduction. The purpose of the research is to analyze the customer relationship management in TECO and how this could be improved.

1.6. Research questions

Based on the purpose of this research, several research questions will be discuss in the discussion part:

1. What categories of customer relation are better to use internet than others?
2. With respect to communication tools, what types of relation are better to use internet than other communication channel?
3. Which customer categories might TECO use as partners for product development or other partner function?
4. What are the future CRM orientations? And how is CRM used in different area of business?
1.7. **Outline of the study**

This thesis will include seven chapters. The content of the first chapter provides the background of CRM, research areas, problem discussion, and the overall research purpose. Chapter two primarily presents the literature review of the study, where the relative information on the study will be outlined such as customer characteristics, customer orientation and satisfaction, and the use of internet. With relative to chapter three, it consists of many useful theories and will be used in analysis chapter. Further more, the research methodology will be mentioned in chapter four and a main case study will be chosen. Chapter five comprises of empirical data and chapter six is the analysis part of this study where the theories are used. Ultimately, chapter seven mentions the conclusions of this study and implication for theories and practitioners in the area of CRM.
2. Literature Review

2.1. Customer characteristics

According to Gummesson, E., (1997), the definition of relationship marketing (RM) is marketing seen as relationships, networks and interaction. RM characteristics is the value for the parties involved, of which the customer is one, is created through an interaction process between suppliers, customers, competitors and others; suppliers and customers are often co-producers, they create value for each other in a joint effort (ibid).

A traditional approach strives to obtain need information only from representative users at or near the centre of the intended target market, and assign the task of generating ideas for solutions leading to new products to manufacturers (Lilien et al., 2002). Turban et al. (2004) indicated that there are 10 attributes for consumer characteristics: age, gender, income, education, lifestyle, psychological state, occupation, values, personality, and marital. The buyer behaviors are different from various characteristics and these 10 characteristics are personal characteristics. Most of the organizations are categories by these kinds of methods.

There are also several types to categorize customer such as product, market, or occupation. According to Grunder and Homburg (2000), authors explored the relationship between customer characteristics and new product success in a machinery context:

- Technically attractive customers
- Financially attractive customers
- Customer in close relationships
- Lead users.

The results displayed that financially attractive customers, lead users, and close customers have a positive impact on new product process. Technically attractive customers on the other hand had a negative impact on new product success. A possible explanation for this variance is that technically attractive customers have needs that are different from those of the market in general and therefore can mislead the company.

Lead users are the users who face needs that will be in a marketplace months or years before the general marketplace and are positioned to benefit significantly by obtaining
a solution to those needs (Von Hoppel, 1986). Lead users are always the main orientation of the market and the practice of lead users has been utilized in high technology industrial markets. The users concepts provide further environmental that interacting with customer and development a new customer orientation.

### 2.2. Customer relationship orientation

According to Ford et al. (1998), the relations between suppliers and customers consist of the three crucial aspects of activity links, resource ties and actor bond. These three kinds of relations are below in terms of the level of closeness:

- **Transactional relationships**, involving no integration between supplier and customer and the supplier’s offering is undifferentiated from that of others.
- **Facilitative relationships**, in which the customer also wishes to acquire relatively undifferentiated products at lowest cost both parties are willing to invest in activity links and resource ties to increase the cost benefits of the relationship. These may include order-processing, EDI-links and logistics arrangements.
- **Integrative relationships**, wherein the customer expects benefits beyond those of lower costs and extending to the revenue benefits of enhances performance of its own offering. In these relationships, the supplier frequently has a representative on site, working with the customer’s development staff with the aim of having his products designed into customer’s product.

### 2.3. Customer support and Customer involvement in new product development

New product development (NPD) requires cross-functional collaboration involving the marketing, design and production function (Mello, 2001). Von Hippel (1976), who introduced the customer active paradigm (CAP), states that under certain circumstances, the customer would start innovating himself when encountering a problem. As a first step, customers generate ideas on how to solve the problem and von Hippel (1976) also suggests that customers should be even more active to conduct the problem solving and develop working prototypes. Customer support and customer involvement can improve the efficiency and effectiveness of new product development. However, which parts of NPD would customer involve in? According to Enkel et al. (2005), the author suggests additional customer types and for customers to make contributions in different parts of the NPD process:

- **Requesting customers** provides ideas for new product, often by means of complaints and suggestions. As complaints are based on current products,
new product information is rather limited.

- **Launching customers** are integrated from the development phase to participate in development activities.
- **The reference customers** supply application experience from prototype testing.
- **The first customer** enters the development process in the late phases of pre-announcement and market launch
- **Lead users** could cover all stages of the NPD process

### 2.4. The use of internet and its advantages

Knowledge and information becomes critical to the success of managing relationships. With information gathered from customer touch points, internal corporate and external sources it is possible to develop a detailed profile of each channel. Detailed knowledge about customers allows manufacturing to move from initiatives and develop specific strategies. Internet breaks the limitation of geography, scope, and time. The information systems can integrate the database gathered from customers into a data warehouse and the organization or firms can access to get the information they want. However, how customer information gathered from the internet can be used to improve CRM? According to Chris O’Leary, Sally Rao, Chad Perry (2004), there are nine strategies could be used to improve CRM through the integration of internet and database marketing: (1) prospecting new customers (2) segmenting customers (3) retaining customers (4) providing one-to-one marketing (5) promoting and advertising pertinent to a customer’s identified interests (6) cross marketing and relationship marketing (7) affiliate marketing (8) stealth marketing (9) customer loyalty.

Generally, the benefit of information integration enables companies to increase the effectiveness. On one hand, the internet enables database marketers to increase their communication capabilities with their customers in terms of the speed and relevance of the communication (Chris O’Leary, Sally Rao, Chad Perry, 2004). That is, by providing rich data, the internet offers companies unprecedented opportunities for getting to know their customers in depth and for customizing offerings to meet their preferences on a one-to-one, personalized basis. On the other hand, database marketing assists internet marketers to be more focused on their profitable customers and direct their internet marketing strategies to meet their needs and provides them with customized products and services so that the relationships become enduring (ibid).
The recent developments of new information and modern technologies such as internet, wireless, and high-speed broadband connections have speed up the collaborative innovation with customers. A more study on the subject is provided by Sawhey et al. (2005). They argue that the internet enhances the ability of firms to engage customers in collaborative innovation in essentially five ways:

- Extended reach: the internet is a global medium that reduces the constraints of geography and distance.
- Enhanced interactivity: internet-based virtual environments allow firms to engage a much larger number of customers without significant compromises on the richness of the interaction.
- Greater persistence: the physical and cognitive effort needed or the firms as well as customers are far lower in virtual environments, so the interaction can be more frequent and more persistent.
- Increased speed: in virtual environments, customer interactions can happen in real-time, and with a much higher frequency.
- Higher flexibility: customer participating in a discussion group or a community can choose their level of involvement. Firms can allow customers to interact with them at different levels of commitment based on their interests and perceived payoffs from interaction, and they can modify their level of participation as their commitment increases over time.

The extended reach, enhanced interactivity, greater persistent, increased speed, and higher flexibility of virtual environments produce three key benefits for collaborative innovation with customer. The direction of communication goes from a one-way import of information and knowledge to an interactive dialogue. The richness of the interaction increases because virtual communities of users allow firms to tap into social knowledge in addition to individual customer knowledge. And lastly, the size and scope of the audience increases as firms can participate in interactions mediated by third parties who are able to reach competitors’ customers or potential customers who have no relationship with the firm (ibid).

2.5. Summary of literature review

An important trend in recent marketing thought is the evolution from a rather limited focus on transactions to a focus on the relationship that companies have with their customers and other actors (Bruhn, 2003; Gummesson, 1999).
3. Methodology

3.1. Introduction

What is research? Research is a systematic investigation in finding answers for a question. Methodologies are considered to be systems of explicit rules and produced, upon which research is based, and against which claims for knowledge are evaluated (Nachamias et al., 1996).

3.2. Research approach

Case study

In this study, I have decided to choose one manufacturing industry as the main case study. TECO is one of the top fifty manufacturing industries in Taiwan and possesses systematic logistics and product development process. The person that I interviewed is a managing director with enough experiences in sales department. Therefore, the research approach should belong to qualitative research and qualitative research is often associated with case studies as a research strategy (Yin, 1994). Case study is considered as a method of collecting and presenting in-depth information.

Yin (1994, p.13) also defined a case study as an empirical inquiry that:

- Investigated a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident.

There are some benefits by using case study (Yin, 1994):

- It may aid the research in getting a holistic view of an event or situation, a view that includes the context as well as the details.
- It is rich in detail and may therefore lead to a more complete understanding of some aspect of a person, group, event or situation. Case studies can satisfy the three parts of a qualitative method: describing, understanding and explaining.
- It may aid in getting affective information that cannot otherwise be collected.
- By using exploratory case studies the researcher may identify hypotheses that may be tested, and aid in finding a more precise research question.

Despite the benefits of using case studies, there are some reasons why people doubt
Many case studies are sloppy and the results have been formed by biases (the same however goes for e.g. surveys). This is partly due to the fact that there is a limited body of literature on case study research. People have confused case study teaching with case study research (in teaching, material may be altered to serve a purpose). It has been argued that case studies provides poor basis for scientific generalization. The same goes for experiments, through, since these must be carried out under different conditions in order to provide generalization. Case studies are generalizable to theoretical propositions and not to populations or universes (just like experiences). In order to make more scientific generalization, multiple case studies might be needed. Subjective element. Often, case study research is considered as flawed because it involves less rigorous methods than in ‘hard’ sciences. Further, if only one researcher conducts it, it is very much exposed to research bias. Case studies take too long and result in massive documents. Often, this has been the case, but does not have to be Case studies are sometimes expensive to conduct

Qualitative approach

With relation to qualitative approach, it is often related to case and in-depth studies where the objectives are to access a lot of information from few units (Svensson, 2003). Qualitative methods also rely on reasons behind various aspects of the behaviors. According to Garson (2002), “qualitative research design strive for in-depth understanding of subjects through such techniques as participant observation or narrative analysis, or they may strive for in-depth understanding of texts through such methods as exegesis or deconstruction”.

Strengths of qualitative approach

Svensson (2003) claimed that qualitative research is the best research method for discovering underlying motivations, feeling, values, attitudes, and perceptions of the context and problem under study.

Limitations of qualitative approach

Unlike quantitative approach, recruiting is rarely completely representative and the
very nature of qualitative approach necessitates small sample sizes are limitations of qualitative approach of this thesis.

3.3. Research strategy

According to Saunder et al. (2003, p.90), a research strategy is a general plan showing how a researcher will go about answering the research questions. Case study can be very valuable way of exploring current theory hence it could be the way of providing source of new hypothesis (Saunder et al 2001, p. 94). According to Zikmund (2000, p.107), the basic advantage of the case study is that an entire unit can be investigated in depth and with details and that the researcher can focus on the order of events as they occur. Therefore, this strategy is used and different methods were utilized to collect the helpful data such as interviews and questionnaires.

3.4. Data collection

With respect to the data collection, it often depends on the ability of the researcher. The researcher should be active in this process and design a good questionnaire. Additionally, the researcher should think how to ask good questions, listen and interpret the answers. In this study, the data was mainly collected by the interview, which is one of the six sources mentioned by Yin (1994), with a good-designed questionnaire.

3.4.1. Selection of Cases

According to Denscombe (2000, p. 33), “the case study approach calls for the research to make choices from among several numbers of possible events, people, and organizations”. He also stated that the researcher have to pick one or just few from many examples from the group of things that are being studied. In qualitative research, free-format responses are expected, the results are used as exploratory research and number of cases tends to small (Dutka 1995, p.25-26-27). Additionally, Churchill (2002, p.454-455), states that convenience samples are recommended for exploratory studies and not for descriptive or causal research.

3.4.2. Interview and Interview Guide

Saunders et al. (2003, p. 162) also defined ‘open questions’ (for why and how question), ‘probing questions’, and ‘specific and closed question’ (to obtain specific information or confirm a face or opinion). In this case study, I will use face-to-face interview for my data collection and the questions were structured into four categories.
The outline of the questionnaire was orderly conducted as customer characteristics, customer relationship orientation, customer involvement, and internet use. First of all, the customer attributes could be clarified by asking customer characteristics and what customers are the main customers for TECO. TECO should realize what kinds of customers they have first and then is able to ponder what relationship strategies could be used for different types of customers, which is the purpose of the second category, customer relationship orientation. Nowadays, the customer is not the customer anymore and he or she could be a partner as well. The amount of companies is eager to understand the customers’ needs and wants but why doesn’t TECO let the customer involve in the production process? Thus, that is the purpose of customer involvement. Moreover, the internet has been spread dramatically and already been regarded as a main communication tool with customers as well. How to use the internet as a strong bond and connection with customer? Thus, the forth category, the internet use, could figure out TECO’s use of internet and emphasize the importance of the internet.

In this study, the main data was collected by the conducting interviews and secondary data was collected from the websites. The motivation of face-to-face interview is that the appreciate people provide in-depth information about primary topics and follow up the questions further. During the interview, additional questions were asked depending on the responses of interviewee. All process was recorded and the interview lasted 30 to 40 minutes. According to Denscombe (2000, p.136), the advantages of interview gotten from the interview are below:

- Depth of information: interview help in producing detail and in-depth with the subject or the topic. Topics can be pursued and issue probe for a long time.
- Insights: the researcher gets insight according to the data he or she gets from key persons (interviewee) in the organization.
- Equipment: interviews do not require any heavy equipment and more to the point, the interviewer used this or her already existing conversational skills.
- Informants priorities: interviewee have the opportunity to use their own gumption and discretion to explain and expand ideas as they deem what issues and factors as crucial and therefore important for them to bring out.
- Flexibility: interview can be deemed as the most flexible method of data collection.
- Validity: accuracy and relevance regarding data collected can be checked based on the direct contact at the point of the interview.
- Therapeutic: people always tend to enjoy the interview experience because f
the personal touch element; and people like to talk to people who want to listen to their idea without being critical but rather is very interested in the and would like to be noting the ideas down.

3.5. Data analysis

Data analysis means that the researcher is deciding what and which meaning can be attributed to the words and what are the implications to that effect; and how does it relate to the topic being investigated (Denscombe 2000, p. 134). In this study, I will discuss the data based on the research questions and compare the in-depth information with theories.

With regards to data analysis, I categorized data collection into different research areas and the research areas were corresponded to those research questions and literatures. Furthermore, the presentation of data in this study was made and written down some ideas in the analysis part and conclusion part.

3.6. Quality criteria

3.6.1. Reliability

According to Denscombe (2000, p.213-214), reliability means whether the research instruments are neutral in their effect, and can measure the same result when used on other occasions and applied on the same subject or object; if someone else undertakes the same study, would he or she get the same result and also arrive at the same conclusions? The researchers have to feel confident that their measurements are not affected by a different reading instrument that gives one reading on the first occasion it is used and a different reading on the next occasion when there has been no real change in the item being measured (ibid).

With relation to the reliability of this study, I have tried to keep the accuracy as possible as I can and haven’t affected by any instruments with confidence. However, the empirical of this study may be different because it’s all about the interaction with people such as between the interviewee and interviewer. Additionally, we also have checked the reliability of this study and follow all steps correctly.

3.6.2. Validity

The following are the validity of a research work mentioned by Denscombe (2000, p.213-214):
• Do the conclusions do justice to the complexity of the subject or phenomenon being investigated and also does it avoid oversimplifications and also does it odder internal consistency?
• Has the researcher self been recognized as an influence in the study and also very objective?
• Have the researcher selected the topic on explicit and reasonable grounds as far as the aims and goals of the study are concerned?

In order to make sure the validity of this study, I studied the purpose, aim of the research, and approaches. The interview questions and interview guide were checked. Furthermore, data collection was consist of different kind of information and websites and conducted by face-to-face interview.
4. Empirical Data presentation

4.1. Case study: TECO Company

First of all, TECO has done a lot of improvements in e-commerce and also consider the internet as the next main medium with customers. TECO is a global company accepted by the population with high reputation and very successful in technological field, form motor manufacture, home alliance, IT system, and even create a company which focus on e-Value. Those have demonstrated TECO should have numerous know-how worth to investigate and also comply with the purpose of this thesis. Therefore, TECO is a valuable case study with high expectation.

4.1.1. Background of TECO

“TECO began in June of 1956 as a motor manufacturer. Establishing a factory in San-Chong City, the company made steady progress over the next 14 years, and then entered the household appliances sector, manufacturing air conditioners, refrigerators, and televisions. Beginning with the 1972 founding of TECO Electric & Machinery (PTE Ltd.) in Singapore, TECO expanded its scope of operations on the road to internationalization. In 1995, the company acquired Westinghouse Motor Company (US) along with a technology transfer. In 1996, TECO entered the electronic communications business, establishing Mobitai Communications, and immediately obtained a license to provide mobile phone service in central Taiwan. TECO also entered a strategic alliance for the Taiwan High-Speed Rail project in 1997, and in December of the year 2000 set up e-Value commence Co., Ltd., bringing home electronics into the new age of e-commerce. In 2001 TECO entered the organic light-emitting diode (OLED) sector of the optics industry, establishing TECO Optronics Co., Ltd. For the past 50 years, the company has thus moved ahead with a step-by-step approach, coupled with continuous breakthroughs. And in the face of global competition, TECO is determined to use the same ambition that has carried us over the years to create a brighter, more prosperous tomorrow” (TECO, [http://www.teco.com.tw/](http://www.teco.com.tw/)).

TECO Electric and Machinery Co., Ltd was established in 1956 and has started out as an industrial motor manufacturer since 45 years ago. At the beginning, TECO produced engines. Over years, TECO is not only renowned as a leading heavy electrical industrial brand, but also as a leading manufacturer of home appliance, telecommunications equipment, IT systems, electromechanical components, and commercial electronics. Not satisfied with producing motors or limited by home
appliances, the TECO Group is also committed to the medical information system, e-commerce, semiconductor, optoelectronics, network, software, infrastructure, financial investment, food services, and distribution industries, becoming a globalize, high-tech enterprise group. Furthermore, TECO has eagerly involved in national engineering constructions as well. Because of the efforts by years, TECO has business cross Asia, America, Europe, and more than tens of thousands of employees working for it. There are myriad of international companies cooperate with TECO, such as General Electric, Westinghouse and Eastman Kodak of the U.S., Yaskawa and Mitsubishi of Japan, Ericsson of Sweden, and Giesecke & Devrient of Germany. In order to set up a high quality, high-tech, and wide-scope international brand, TECO Group will not only keeping going effort on core businesses, but also try to investigate innovative products with high value-added and strive to extend high-tech industries either.

With respect to the philosophy, TECO has considered innovation as a crucial plan: “Embarking on a new era of innovation”. From the beginning, TECO has maintained the importance of continuous improvement and innovation, not only in technical expertise, but also in the areas of new business and diversified investment opportunities. As we embark on TECO 50th year, TECO pledges to continue to work towards meeting the challenges of the future. For diversified development, TECO Group has grown dramatically over the decades to become a fully diversified corporation, so TECO has built eight major divisions: (1) home appliance (2) information technology (3) communications (4) electronic (5) key components (6) infrastructure construction (7) investment (8) food service sector. During the past 50 years, TECO has taken the philosophy of “Renovation to create new frontier, Innovation to meet the future” as its basis.

TECO considers its human resources not only as its biggest asset, but also its greatest competitive advantage. All managers treat team members as their family and the people-oriented management style in TECO establish a harmonious and family-like atmosphere in the workplace. Additionally, employee training system blueprint offers training courses and career planning for all employees in terms of position and potential. Reaching the win-win situation by people-centric management has been TECO’s unwavering management philosophy for more than 50 years.

Most of the technical industrials have focused on R&D department. TECO of course is one of them and even has devoted to develop innovative products. Innovation has always been the main logic for business expansion decisions within the TECO Group. The TECO Group Research Institute (TGRI) was established. TGRI confirms the
sustainable development on both growth and profitability by continuous investments in long-term technology development and short-term product feature enhancement. The advanced display technologies, information appliances and efficiency performance improvements for industrial appliances are the main research topics of TGRI.

4.1.2. TECO’s CRM

With relation with TECO’s customer relationship management, TECO has established an Information System & Service Sector. The main mission of TECO's Information System & Service Sector is to help our clients improve their competitiveness through successful integration of IT systems and business processes. The sector's scope of business has broadly covered from front-end to back-end systems, from enterprise users to individual consumers and from single project launching to long term business process outsourcing services. It is our goal to offer high quality, reliable and cost effective solutions to our clients. ITTS (Information Technology Total Services) is one of the departments and also the first company engaged in BPO (Business Process Outsourcing) in the greater China.

ITTS is an IT company focused on developing solutions applicable to various BPO services. On the one hand, ITTS’ services help businesses serve their internal users with eBusiness needs and ERP applications; on the other hand, it also assists businesses serving diverse clients with Customer Relationship Management, Mailing and Data Management services. ITTS has on its domain expertise to customize business process outsourcing service modules for enterprises to enhance their competitiveness and differencia.

With over 10 years of R&D and project experience, ITTS has become the most long-term trustworthy BPO partner for numerous companies. ITTS has succeeded in various sectors including finance, insurance, manufacturing, telecommunications, logistics, biotechnology, pharmaceutical, high-tech and the public sector. Based in the Nankang Software Park, ITTS serves customers in Taipei, Hsinchu, Taichung, and Kaohsiung of Taiwan, as well as Hangzhou and Wuxi of the Eastern China, and Xiamen of the Southern China. In the future, ITTS plans to expand its overseas branches with the TECO Group's globalization strategy to provide its clients with global localization services.

In order to enhance the business efficiency and purchasing process of B2B, our “e-Procurement system” is on one hand to provide enquiry, quotation and purchase
information to all procurement departments of respective business division internally within the TECO business Group; on the other hand it is to establish a fair, open, secured and convenient access service for our suppliers to our e-procurement system.

4.1.3. The background of interviewee

Paul Liu is a managing director of TECO Company, who has worked over 20 years in Industrial Motor & Applications Division and responsible for Sale, Service, and Customer relationship maintenance. The interview was conducted by his efficient working experiences in sales and he also provided his deep relationship with customers. Because one of the topics of this study is about customer involvement in production process and CRM, Paul Liu is a perfect interviewee with a affluent experience about sales, new product development, and relations with customers.

“Industrial Motor & Application Division is consisted of an extensive global network of R&D centers, manufacturing bases, and sales & service offices. With solid product development technology and capabilities, abundant engineering and manufacturing resources, and a superb management team with years of multi-national collaborative experience, the best products and services were provided to satisfy the customer needs worldwide. TECO has been designing and manufacturing products with the "Quality-First" commitment in mind to meet and exceed international industrial standards, such as CNS, JIS, BS, IEC, NEMA, IEEE, CSA and UL” (TECO, http://www.teco.com.tw/). Additionally, Industrial Motor & Application Division is the most beneficial department in TECO.

4.2. Customer characteristics of TECO

According to product, market, occupation, or others, the customer can be categorized into several types. Grunder and Homburg (2000) explored the relationship between customer characteristics into four types: (1) technical attractive customers (2) financially attractive customers (3) customer in close relationships (4) lead users.

TECO’s customers could be sorted in to these four types and most of customers are financially attractive customers and customer in close relationship. First of all, with respect to the financially attractive customers, TECO is one of top three companies around the world and another two companies are ABB and Siemens. Products of TECO cost less 15 to 25% than ABB and Siemens. Thus, TECO has the biggest competitive advantage at the selling price. Numerous customers who decide to use TECO’s product are based on financial reason, especially when the economic crisis is spreading all over the world. Some clients who used to buy ABB’s or Siemens’
products already change their minds to use TECO’s instead. Second of all, for the customers in close relationship, because of the 53 years’ experience, most of customers have established a very close relationship with TECO. Quality also is another attractive reason. During the history of purchase with TECO, there are very few complaints and product problems reported by customers. TECO is very reliable for customers in terms of low price and high quality, which are the most competitive advantages for TECO.

However, with relation to the rest two types of customer characteristics: technical attractive customers and lead users, there are part of customers can be categorized to these two types. Since TECO acquired Westinghouse Motor Co. (USA), the technology was improved and started the business in U.S.A by two brands, TECO and TECO Westinghouse, at the same time. Therefore, some of customers belong to technical attractive customers. For the lead users, some cases are from innovative companies. TECO also has cooperated with high-technical companies such as producing energy-efficient engine and wind-power generation system. Those are customized products and revolutionary design.

4.3. The internet use in TECO: E-procurement

TECO group has set up a well and functional online service such as e-procurement system, necessary contact information, and product catalogs. As long as the customer leaves the contact information on the website, the sale representative will try to contact and communicate with that customer as soon as possible. However, TECO has not established and organized a comprehensive customer database. Each sales representative is responsible for his or her own customers. In order to create a well communication system with customers, TECOM was established in 1979 by TECO group. TECOM has rapidly become one of the Taiwan’s most successful local high-tech companies. TECOM not only serves clients by business communication systems, wireless communication systems, infrastructure transmission systems, and data communication systems, but also establishes a good customer service for TECO.

Recent developments in new information and communications technologies such as internet and high-speed broadband connections have facilitated collaborative innovation with customers. Sawhney et al (2005) stated that there are five essential ways of internet enhance the ability of firms to engage customers in collaborative innovation: (1) extended interactivity (2) extended reach (3) greater persistence (4) increased speed (5) higher flexibility. The interviewee, Paul Liu, strongly agrees these five merits of adopting internet as communication tool with customers. Because of the
race of continuous competition, time is the key to win. Real-time global communications now becomes even more critical to the success of market competition. From analog transmission to digital telecommunications, from fixed line services to mobiles communications, the evolving communication technology has influenced on almost every aspect of human life. Thus, TECO has considered communication tools as a very crucial issue and paid more attention on it. The response from customers will be received by sales representative via digital telecommunications or accepted by network operators via customer service system.

Because of the need of a precise design and detailed account for the product such as motor engine, the online service could not fulfill and satisfy requirements of all products. If the customers only want to procure standard products, which conform to international industrial standard such as CNS, JIS, BS, IEC, NEMA, IEEE, CSA and UL, they can order through e-procurement system on TECO’s websites. But, if the customers want to purchase customized product, they need to discuss with sales representative, because all details, such as components and materials, size, have to be discussed well and communicated clearly. Most of industrials that require customized products are architectural company, electric factory, rubber industrial, steel manufacturing, petrochemical industrial, and cement corporation.

4.4. Customer involvement of TECO

According to Enkel et al. (2005), the author suggests additional types and for customers to make contributions in different parts of the new product development: (1) Requesting customers: provide ideas for new products, often by mean of complaints and suggestions. As complaints are based on current products, new product information is rather limited. (2) Launching customers: are interested from the development phase to participate in development activities (3) Reference customer: supplies application experience from prototype testing. (4) The first customer: enters the development process in the late phases of pre-announcement and market launch (5) Lead user: could cover all stages of the new product development process.

TECO’s customer could involve in new product development and most of customers in TECO are belonged to lunching customers. The project customers have to participate in the early stage of product development process. Once all the details are decided, it is hard to be changed during the development process like components and size. Maybe only small parts could be changed after producing but most parts could not.
4.5. Customer relationship orientation of TECO

With much of the strategic, tactical and technological issues solved, what is forthcoming in the CRM arena? There are two main areas of future development stated by Rado Kotorov (2003): (1) future increase of the scope of CRM projects (2) an expansion of the CRM applications to people-driven applications (PDAs). Nowadays, the economic crisis has not only impacted the economic issue but also influenced TECO’s customer relationship management.

Almost all customers’ purchasing ability decreased, so the benefit goes down as well. Even some customers decided to buy other companies’ products, cheaper but low-quality. In order to deal with this kind of situation, TECO’s long term strategy is not only to maintain the existing customers, but also do their best to explore new customers and outsourcing. The long term strategy can bring more profits and decrease the cost. With respect to the biggest difference between strategies implemented now and future strategies, the main selling strategy is changed from maintaining existing customers to creating new market, from single product to whole set product, from single person to a group, and become more innovative. I take a primary product, Motor engine, as an example. In the past, the sales representative of industrial motor & applications division are responsible for single product and other relative products, like only engine or single turbine. However, for the long term strategy, TECO decided to change from selling single product to a whole set product. They organized different departments and provide clients with better customer services. This is a revolutionary in customer service, relationship management, and innovation.
5. Data analysis

5.1. Within-Case analysis: TECO Electric & Machinery Co., Ltd.

What categories of customer relations are better to use internet than others?

With respect to the customer categories mentioned by Grunder and Homburg (2000): (1) technically attractive customers (2) financially attractive customers (3) customer in close relationship (4) lead users, “financially attractive customers” and “customer in close relationship” are better to use internet than other types. First of all, TECO’s website provides e-procurement system and other essential information such as product catalog and contact information. Financially attractive customers are used to pay attention to the price, so TECO’s online service could fulfill the needs of this kind of customers. Second of all, customers in close relationship have established a good and long relationship with TECO. TECO also have detailed information with closed-customers such as the background of customers, history of purchase, and customers’ habits. Customers in close relationship are very suitable to use internet as a communication tool because they don’t need to order through a complicated communication with sales representatives. They just use that online procurement system and leave their information as well as the product number. After that, the network operator in TECO will follow that order and even interact with customers in the internet. It is a process that increases speed and enhances interactivity. Therefore, within this case: TECO, financially attractive customers and customers in a close relationship are better to use internet than other types of customers.

Another customer category that I just mentioned in this study is about customer involvement. According to Enkel et al., (2005), There are five types of customers contribute in new product development process: (1) requesting customers: provides ideas for new products included complaints and suggestions (2) launching customers: participate in the development phase and development activities (3) reference customers: have application experiences from prototype testing (4) the first customer: participate in the late phase of pre-announcement and market launch (5) lead user: cover all stages. Usually, the customers who are better to use internet than others are the first type: requesting customers. For example, a few years ago BMW set up a toolkit on its website to invite their customers to develop ideas in terms of how the firm could take advantage of advances in telematics and in-car online services. Some of their ideas have reached the prototype stage and BMW is now broadening its
customer-innovation efforts. Moreover, TECO also said that once the product is being produced, it is hard to be changed. Maybe some products could be involved in the early development stage but most of them are not. Other types of customers are not more beneficial than requesting customers.

**With respect to communication tools, what types of relation are better to use internet than other communication channel?**

According to those advantages of using internet stated by Sawhney et al (2005), the internet enhances five competences of firms: (1) extended reach (2) enhanced interactivity (3) greater persistence (4) increased speed (5) higher flexibility. Before we discuss what types of relation are better to use internet than other communication channels, we should think about what types of relation can develop those five advantages most.

In a nutshell, the internet thoroughly reduces the limitation of distance and time and combines various companies around the world into “one”. Therefore, the company reaches the globalization and customization via the internet. With relation to globalization, a company must communicate with other numerous companies located in different countries, such as manufacturing, branch offices, joint ventures, and etc. Lots of internet-based communication tools are convenient, real-time, and no distance barrier, and, especially for global companies, the information of customers, partners, and even competitors need to be synchronized everyday through the internet. Thus, the internet actually plays a crucial role for global companies.

The customization, however, is advanced by the internet and the customer is able to involve into the manufacturing, design, functions, and so on. The product and service will be more customized and fulfill the customers’ needs as well as acquire more and more profits. Knowing customers’ needs comes from the interactions with customers and the more valuable interactions with customers, the more information you could get. The internet really doesn’t only increase the interactions and the activities with customers, but also provides an easy way to persist and manage.

**Which customer categories might TECO use as partners for product development or other partner function?**

A partner means a person who shares a common interest or participates in achieving a common goal. A business partner of course means they focus on business parts such
as new product development. Business partners are used to make distribution on product development process or other functions. The distributions that they offer could be in different stages like early stage, middle stage, and late stage of product development. The distributions are not only positive, but also negative included suggestions, ideas, and complaints. A good partner can lead the best ways to grow their business. Many industries often only consider another firms could be a partner but actually they are wrong. The customers that that sell products to should be one of business partners.

In my point of view, according to the four categories that stated by Grunder and Homburg (2000): (1) technically attractive customers (2) financially attractive customers (3) customers in close relationship (4) Lead users, TECO should regard technically attractive customers and lead users as the best business partners for growing business. Technically attractive customers are only attracted by high-tech and innovative products. Even though Grunder and Homburg (2000) argued that technical attractive customers might have negative impact on new product process and may mislead the company but they also can push TECO to create advanced technical product and pay more attention on R&D department. With relation to the lead users, they represent the main trend of the market and even could lead TECO to the new market. During the economic crisis, TECO is critically impacted. New market and new product are the strategies for getting competitive advantages. Therefore, in my opinion, TECO might take technically attractive customers and lead users as partners for new product development or other functions.

For the customer involvement, there are five additional customer types that mentioned by Enkel et al (2005) could make contributions in different parts of new product development process: (1) requesting customers (2) launching customers (3) reference customers (4) the first customer (5) lead users. Launching customers are the most contributive for TECO and of course they are the best partners in new development process.

Moreover, TECO also can make good relationships with project customers. For example, everyone knows the wind-power generation system is popular issue nowadays and even become a main trend. The key component of wind-power generation system is the engine, which is the best competitive advantage for TECO. The technology of producing engine is getting advanced and innovative as well as more efficient. TECO could also improve by cooperating with those project customers at the same time. Wind-power generation industrials are one example and others like
plastic and cement industrials are also. Thus, cooperation with project customers is another good way to improve and project customers are also a nice choice to be business partners.

What are the future CRM orientations? And how is CRM used in different area of business?

The product is changing, the market is changing, and even customers are changing as well because we are in the IT environment, which really influences everyone’s life everywhere and all the time. The novelty is widespread via digital technology, such as mobile, internet, and other telecommunication tools, and customers’ needs and behaviors are altered fast. Hence, one of the most important issues is to predict what the future CRM orientations are and how to manage it well. According to Rado Kotorov (2003), there are two primarily forthcoming developments in CRM:

1. Increasing the scope of CRM
2. CRM application is developed to people-driven application.

The future orientation is driven by customer orientation and of course because the demand of CRM is customer driven, the implementation in CRM is also people driven. Thus, that is really a severe demand for sellers to integrate human resource system into CRM. If a firm has an excellent management program, the employees will not need to transfer or synchronize spreadsheets to human resource system and accounting. The information is all real-time data and automatically available for CRM system by a well-integrated system. Therefore, the future development of CRM has dramatically changed the scope of CRM and become more competitive as well.

In my point of view, I agree the CRM will orient to people-driven application and I take Amazon as an example. When you log in Amazon’s website, they already knew what you have bought and understand well your purchasing behaviors as well as even the websites you have been, what you have read, and your internet behaviors. The information above will enable Amazon to arrange a selling, CRM, and marketing strategy for you, a real individual service. How could Amazon do that? It’s all because the internet, the power of IT environment, and it is the best strength to push it as well. In the past, the companies categorized customers by age, gender, or occupation, and what they thought customization is only pay attention on one of the groups and customized in terms of what they need and want. Furthermore, because of the internet, you cannot sort customers by age or gender any more, and instead of precisely customizing individual needs. The internet not only helps you to contact with
everyone and then make a holistic selling strategy for every person but also is capable of reserving everyone’s record, including purchasing history, and background. That is a huge difference compared to the past.

TECO is able to take Amazon as an example to extend its CRM in the internet. Although TECO is mostly in the industrial market and these two future developments are more suitable in the consumer market but these are probably used in an industrial market. TECO can trace the customers’ purchasing behaviors and record what products customers have bought, what kinds of design they want, and etc. At the same time, TECO ought to create new and innovative products based on customers’ needs and what products they have preferred, and then transfer and recommend the new information to customers through the internet. TECO is a well-known, global, high-tech company, and have the amount of customers around the world. If TECO could manager CRM as “people-driven application” through using internet very well, like Amazon, TECO might become the Amazon of industrial market, which really keeps in touch with all customers and trace customers’ needs via the internet.

6. Conclusions, limitation, and implications for future research

6.1. Conclusions

The internet and CRM both have widespread around the world for a long time. CRM is the imperative concept to maintain competitive advantages and whatever companies, B to B or B to C, pay much attention on improve the relation with customers. For companies, CRM is a strategic and management concept that is able to increase, retain, create values for all customers and the sustainably competitive advantages will be improved as well. In addition, the internet has witnessed dramatic evolution over the past 30 years and become one of the most public and global communication networks which can connect all the people from everywhere. Therefore, Electronic CRM (ECRM) is getting crucial now and gets lots of attentions than before as well as has been discussed for a long time.

The purpose of this research is to analyze the customer relationship management of TECO and how to use internet as the tool for customer relations. First of all, the primary information was conducted by face to face interview with the managing director of TECO and second data was gathered from TECO’s website and the
Additionally, the qualitative approach is used in this study because of only one main cast study and it of course is the limitation as well. TECO has established an information system, named ITTS, to maintain and improve the relationship with customers. ITTS either assists business serving diverse clients with CRM, Mailing and Data Management services or has succeeded in the amount of sectors including finance, insurance, manufacturing, telecommunications logistics, biotechnology, pharmaceutical, high-tech and the public sector. Moreover, customers are able to be sorted into several categories in terms of product, market, occupation, and so on. After interviewing, most of the customers in TECO are financially attractive customers and customer in close relationship because providing lower than other competitors about 15 to 25% in price is the main competitive advantages for TECO. For the internet use, TECO also has offered e-procurement system, necessary contact information, and product catalogs on the website as well as set up a well communication system with customers by TECOM. However, because of the need of precisely design and detailed account for the product, the online service is very difficult to match requirements of all products. TECO’s customers could participate in the development stage of product development process and most customers are belonged to launching customers. The long-term CRM strategies of TECO are not only to maintain the existing customers but also explore new markets and innovate new products as well.

In the analysis part, four research questions used to deeply discuss the CRM in TECO was analyzed. Firstly, this study already mentioned various customer categories and if TECO wants to manager or implement CRM through the internet, financially attractive customers and customer in a close relationship are best categories. In addition to the categories claimed by Grunder and Homburg (2000), after analyzing the customer categories stated by Enkel et al., (2005), requesting customers are better category to improve via the internet. Secondly, TECO is global company and the distance and time are obstacles for it to manage CRM. Additionally, customers could reflect their opinions to TECO immediately by the internet. Therefore, globalization and customization are preferred to use the internet as the main communication tools. Thirdly, the customer is not the customer any more; they also could be the partner. According to the customer categories mentioned above, the technical attractive customers and lead users could be the good partner and launching customers also. Eventually, the last research questions were discussed the future orientation of CRM. TECO is able to utilize the internet like Amazon as the tools to gather customers’ information, such as customers’ purchasing behaviors, customers’ needs and wants, etc. At the same time, TECO ought to create revolutionary products by collaborating and investing R&D department. Hence, For TECO, implementing CRM in industrial
market as the CRM in customer market might be one of the good choices of future CRM.

6.2. Limitation

This study also has several limitations. First of all, to be an informative interview, the interviewee should have high responses. The time should be prearranged well and the location also needs to be scheduled with convenience (Denscombe 2000, p.136). Because of lack of time, we met in a coffee shop, which is downstairs of TECO building, and only a half hour to ask. Secondly, according to Marshall and Rossman (1999), in spite of the advantages of the interview, the response of the interviewee may not be willing or truthful and also hard to measure it. However, the expertise and knowledge of the interviewer might not enough, and might not holistic understand the interviewee’s responses as well. That’s why I should improve the skills of interview and must have high observation.

6.3. Implications for future research

Although the internet has penetrated into our world and life, already rely on the internet. There are some weakness should be improved in TECO as but not all kinds of companies are very suitable to manage and improve CRM by the internet. The further research could pay attention on what sort of companies, such as technical industries, food&beverage industries, transportation industries, pharmaceutical industries, and etc, are better to use internet to improve or which markets, such as industrial and customer market, are preferred to utilize.
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8. Appendix

The appendix below is the questionnaire:

Customer Relationship management in TECO

Chiamin Li
Mobile: 073-9570547

Topic: relationship management of a company through internet
Aim of the research: Analyzing customer relationship management and how to use the internet as a tool for customer relations
Approaches: (1) construct a mapping of TECO relationship between company and customers (2) Study how the theories are used and could be used

Customer relationship management is the imperative concept to maintain competitive advantage and the internet has witnessed dramatic evolvement over the past 30 years. To be successful at e-business, companies should rethink their business focus and the business model ought to evolve from production-centric to customer-centric as well as many benefits will be improved through the internet.

Why should we use the internet as a tool to improve and what benefits behind it? According to Sims 2000, Anderson Consulting found a typical $1 billion high-tech company can gain much as $130 million in profits by improving its ability to manage customer relationships and also found that as much as 64% of the difference in return on sales between average and high performing companies is attributable to electronic customer relationship management (ECRM) performance. Improvements in the overall customer experience lead to greater customer satisfaction, which in turn has a positive effect on the company’s profitability. The following benefits can be achieved with a proper ECRM implementation: increased customer loyalty, more effective marketing, improved customer service and support, greater efficiency, and cost reduction.

I believe TECO’s relationships with the customers will be constructed clearer than before through my project and I will analyze the relationship map in terms of theories and strategy-based process such as customer characteristic and customer relationship orientation.

I’m expecting our meeting and hope I can get this opportunity, thanks!!
**Customer characteristic**

There are many several types to categorize customer such as product, market, or occupation. According to Grunder and Homburg (2000), authors explored the relationship between customer characteristics: (1) technically attractive customers (2) financially attractive customers (3) customer in close relationships (4) lead users. The results displayed that financially attractive customers, lead users, and close customers has a positive impact on new product process. Technically attractive customers on the other hand had a negative impact on new product success. A possible explanation for this variance is that technically attractive customers have needs that are different from those of the market in general and therefore can mislead the company.

1. So which characteristics does TECO’s relationship with customers belong to? Are there other types?

**Customer relationship orientation**

According to Rado Kotorov 2003, with much of the strategic, tactical and technological issues solved, one may wonder what is forthcoming in the CRM arena? There are two main areas of future developments: (1) future increase of the scope of CRM projects (2) an expansion of the CRM applications to people-driven applications (PDAs).

1. What type of relationships does TECO want to develop with different categories of customers?
2. What are the long-term strategies of CRM in TECO?
3. What is the biggest change between strategies implemented now and future strategies?

**Customer involvement**

Enkel *et al.*, (2005) suggest additional customer types and for customers to make contributions in different parts of the new product development process: (1) Requesting customers: provide ideas for new products, often by mean of complaints and suggestions. As complaints are based on current products, new product information is rather limited. (2) Launching customers: are interested from the development phase to participate in development activities (3) Reference customer:
supplies application experience from prototype testing. (4) The first customer: enters
the development process in the late phases of pre-announcement and market launch (5)
Lead user: could cover all stages of the new product development process.

1. Does the customer involve in new product development?
2. Based on the five types that Enkel suggested, what types of customers does
   TECO have?
3. In spite of the new product development, are there other areas that customers
   contribute to or involve in?

The internet use
Knowledge and information becomes critical to the success of managing relationships.
With information gathered from customer touch points, internal corporate and
external sources it is possible to develop a detailed profile of each channel. Detailed
knowledge about customers allows manufacturing to move from initiatives and
develop specific strategies.

1. Does TECO provide online service?
2. Has TECO set up a customer information database? Or customers’ portfolios?
3. Where and how does TECO gather customers’ information?

Recent developments in new information and communications technologies such as
internet and high-speed broadband connections have facilitated collaborative
innovation with customers. According to Sawhney et al (2005), they argue that the
internet enhances the ability of firms to engage customers in collaborative innovation
in essentially five ways: (1) extended reach (2) enhanced interactivity (3) greater
persistence (4) increased speed (4) higher flexibility.

4. What communication technologies does TECO use to communicate with
   customers?
5. Is there any customer service innovation created by TECO?
6. What has TECO done to improve the customer relationship and get the
   competitive advantage further?

Possible finding and advantages for TECO
1. Some categories of customer relation are better to use internet than others
2. Some type of relations are better to use internet than other communication
   channels
3. Which customer categories might TECO use as partners for product development or other partner function
4. What are future directions of CRM and how is CRM used in different area of business?

Reference