New service development process-Experiences from a Chinese manufacturing company Lenovo

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Level E

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Abstract

Purpose:
This thesis examines the process of E-care service of Lenovo for better understanding of the new service development process. Based on literature linking on new service development process, case research is the main methodology of this paper. 19 interviews have been done with employees and managers from five departments, some of the detailed empirical materials were from secondary data from interviewees, the empirical findings partly support the ten stages new service development of Alam (2003), however, in the implementation phase of E-care service some stages are missing or emerge with other stage such as personal training and strategic planning. These exploratory results encourages the further studies on new service development process in manufacturing companies for better understanding of new service development process.

Keywords: new service development, process, service process.

Methods: Several methods are used in this thesis. Case study is used as the overall methodology approach. During the phase of data collection, semi-structured interviews and transcripts are used. Most of the interviews are conducted over the phone and some of them are conducted over email and instant messenger for better understanding for certain stage. Inductive strategy is the main methodology in analysis data and findings. Alam’s ten stages model is the main model that have been used in arranging data and findings.

Findings: Process of development E-care service in Lenovo can be divided into eight stages: Idea generation, idea screening, business analysis, service system and process design, pilot run testing, market testing, commercialization.

Conclusion: In conclusion, model of the E-care service only contains eight stages comparing to Alams’. The difference between them are, the stage in training and strategic planning is missing, the main reason for those difference is E-care service is based on using internet as platform to help customers solve their problems, most of the target customers for this service are from primary level therefore special training is not
necessarily.

**Implications:** Although E-care service is successful in China and the acceptance of this service is getting increased. Still, getting to know customers really wants and needs can not just simply read some analysis in the office or tracing and talking to customer to ask their wants. Some technical skills should be development to explore customers’ real needs at beginning of idea stage. Meantime, simply copying the way in developing new service such as using CMMI is not always the answer, Chinese companies have to develop own idea in developing the process adjoin the customers and market in China.
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1. Background of the new service development

In this chapter, the background of the service development will be conducted, together with some related models in process developing. Problem of the precious studies purpose, findings. Configuration and limitations of this thesis will also be discussed.

1.1 Defining new service development

New service development is often defined as the process from idea to launch of a new service. In contrast, service design means different things to different researchers. Gummensson (1991) defines it as being a concretization of the service concept in drawings, flowcharts, specification, computer software, instructions and other descriptions that facilitate the establishment of what the service should include and how the service production should be carried out, Morling, Edvardsson and Gummesson(1992) see service design as the work of specifying an idea about new service in drawing and specifications, Service design is often characterized as part of the wider conception of service development.

1.2 Meanings and importance in doing research of the new service development

My points of departure in this thesis are that new service development is highly relevant from both an academic and applied research perspective. However, service innovation and new service development are poorly researched and understood areas within service marketing and management Gronroos et al (1990)

Many services have not been tested before market introduction and the idea of designed quality has not yet come to services, consequently, the failure rate for new service development is high. It is important to test new services with customers or to a simulated service delivery system before launching to the market.

A new service is not a stand alone market offering. Most often it is part of a service
package including a number of service and physical products as well. A new service may affect customer relationship, either strengthening them. Weakening them or have no impact at all. A new service may also affect the internal service system and production processes. The internal implementation in the service system is an important aspect of new service introduction. A new service may thus impact the existing service system, the total quality, customer relationship and profitability.

### 1.3 Service development characteristics

Booz, Allen and Hamilton (1982) provide a framework that presents a number of categories of service development. First, there are new to world service. Such services not only represent a major new challenge to the supplier, but are also seen as quite new in the eyes of customers. Second, are new service lines, which represent major new challenges to the supplier. Addition to existing service lines is the third category. These are new service that supplement a company’s established service lines. Improvements and revisions to existing services provides improved performance and so replace existing service. Fifth are repositioning, current services that are targeted to new markets or market segments and finally cost reduction are new services that provide similar performance at lower cost.

In general, there seems to be an overall lack of radical innovation in service. According to Johnson (1998) only about ten percent of all service developments could be defined as innovation, (Hippel, Thomke and Smonnack1999) suggest two reasons why product developers do not come up with major innovations more often. Companies face strong incentives to focus on the short term. Developer imply fail to achieve breakthroughs because there is no effective system in place to guide them and support their efforts.

### 1.4 Process of New service development

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at a lower cost.

Much research has been focused on providing a structure to the many activities and
concepts associated with the NSD process (e.g. Scheuing and Johnson 1989). Most
models have employed a temporal or predecessor-based structure that is essentially linear
in nature, similar to many project management approaches (Johnson et al. 2000; Bitran
and Pedrosa 1998). There are many examples of linear models of NSD. For example,
Shostack (1984) developed one of the earliest notable linear models for NSD by
decomposing the process into 10 discrete stages. A more aggregated six-stage model is
employed by Reidenbach and Moak (1986), which included the phases of idea generation
evaluation, concept development and testing, economic analysis, product testing, market
testing, Voss et al. (1992) employ for their analysis a four-stage model consisting of
concept development and analysis, prototype service development, prototype service test
and debug, and full launch of new service. Bitra and Pedrosa (1998) attempt to bridge the
NPD and NSD literature by developing a six-stage model of a generic development
process. Their model, like many others, explicitly includes feedback loops that allow
knowledge gained later in the process to be fed back into steps typically occurring earlier.
Finally, Johnson et al (2000) synthesized past service development research and created a
general four-stage NSD process model involving the phases of design, analysis,
development, and full launch.

1.4.1 Several related models of the new service development process in previous
studies
The new service development may be described in many different ways depending on the aim the description, the context, and the researchers’ world-view to mention a few. A number of models of the new service development process have been developed. The following pictures are structured the process by decades in the last 30 years.

80’s

![Diagram showing new service development models in 80's]

- **Dennis, Barry and Thomson (1982)**
  - Strategic Guidelines
    - Exploration
      - Screening
        - Comprehensive Analysis
          - Development and Testing
            - Introduction

- **Johnson, Schoning, and Gaua (1986)**
  - Strategy Formulation
    - Idea Generation
    - Analysis
    - Service Design and Process Development
      - Testing
      - Introduction

- **Bower (1986)**
  - Develop a Business Strategy
    - Idea Generation
    - Concept Development and Evaluation
      - Business Analysis
      - Service Design and Evaluation
        - Market Testing
        - Commercialization

Figure 1 New service development models in 80’s

90’s-2003
Bo Edvardsson (1997) and Bo Edvardsson et al (2000) mentioned the three stages model of the process in new service development including service concept development, service system development, and service process development. Later, Edvardsson (1997) also conducted four stages of the development process including idea generation, analysis, designing, and implementation.

Bo Edvardsson et al (2000) have clarified their point of view of departure a simple model that has based on four generic phases: service idea generation, the service strategy and culture gate, service design and service policy deployment and implementation. The first phase, service idea generation, includes issues such as idea generation and idea evaluation in terms of sources and techniques and idea screening. In the second phase the service strategy and culture gate, it is determined if the idea is in line...
with the company’s strategy and culture, if that is the case, the necessary resources to start a project is done in phase 3, service design. This phase is often undertaken in a number of parallel and sequential sub-processes. The fourth and final phase, service policy deployment and implementation, includes implementing the service process in the service system, marketing, training and other preparations before and during the actual launch. Comparing with old model in 1980s according to Edvardsson et al (2000)’ view, these models fail to capture the unique characteristics of services and the service logic, some empirical studies show that the service development process is made up different overlapping sub-processes and simultaneous activities, these models illustrate a number of sequential phases. Furthermore, those models are not clearly customer oriented in the sense that the process starts with the customer and is guided by the customer’s need and preferences.

Alam (2003) expended this theory by using the ten stages model of the new service development with user involvement. In his theory, the whole service can be broken into ten stages including strategic planning, idea generation, idea screening, business analysis, formation of the cross-functional team, service and process design, personal training, service testing and pilot run, testing marketing and commercialization.

It can be seen from the graphs above, the process models have been expanded with time goes by, from the seven stages model to ten stages model of Alam. Naturally, the similarities from these models and previous studies are the new service development processes are obvious. In reviewing the literature of new service development process, six key themes are emerged in all models.

1. The corporate environment
2. The service process
3. The people and (physical resources) involved
4. Analysis
5. Development
6. Implementation

All of the empirical studies and theatrical studies have different views in new service development process. Moreover, many service industries are facing a rapidly changing market, increasing deregulation, emerging technologies such as the Internet and e-commerce, shortages of skills, and more demanding customers. To remain competitive in these turbulent and rapidly changing markets, many service firms are recognizing the need to develop new service offerings that are timely and responsive to user needs. That is, it appears that there is a pressure on many service firms to interact with potential users and obtain input from them during a new service development program. Is there any exclusive model in the end? If so, how many stages it should be involving in the whole process? What are those stages?
1.5 Problem discuss

Reflecting the growing importance of services in modern economies, new service development has started to receive increased attention. Yet limited empirical evidence exists about how new services are developed because the literature is still embryonic in nature. One reason for this lack of attention to the new services area could be that innovation has traditionally been associated only with tangible product industries. As a result, the new tangible product development literature is rich, but this literature may not fully capture the intricacies of new service development. Service marketing is different from tangible product marketing. Because services are characterized by intangibility, heterogeneity, perishability, and inseparability. Therefore, the development process of a new service may be different from the development process of a new tangible product, and thus more research in the area of new services is desirable.

1.6 Purpose

As mentioned previously, many empirical studies of process in new service development have been done of the service companies, in manufacturing companies and e-service are rarely conducted, facing rapidly changing market and emerging technologies nowadays, in order to whether it has different process of the new service development in manufacturing company, I choose Lenovo as the case of this paper.

The main purpose in writing this paper is finding out the process of E-care service of Lenovo, since E-care has became a big hit by 2008 and the figuring out the process of developing this new service is interesting. In light of this, this thesis also clarifies the theoretical and particle questions for this thesis as follows.

Theoretical question: How many stages it involves in new service development process? Is it different from previous studies that have been carried out

Practical question: What’s the process in developing new service E-care in Lenovo? What are those stages?
1.7 Findings:

In conclusion, the process of new service E-care in Lenovo basically can be broken into eight phases, the idea generation phase, idea screening phase, business analysis phase, designing phase, service testing phase, test marketing phase and commercialization phase in the end.

1.8 Configuration:

Chapter 1 start with talking service concept and some previous new service literature in general. In next chapter some literature review of process of the new service development is conducted. Chapter 3 clarifies the methodology and data collection and analysis process of this thesis, in chapter 4 presents the practical findings and analysis, in chapter 5 the empirical findings are analyzed related to the theories and some discussion and implications are further discussed.

1.9 Limitations:

1. Due to the small number of Chinese employees who work in Lenovo and time limitation, the limitation of this study is the small of sample. I had only interviewed 15 employees. Through collected and analyzed the information, this thesis conducted the study.

2. Those who have positive things to say accept interviews, including showing how successful the service is and what they had done is worth it.

3. From psychology aspect, people may only point out the positive things in order to Show they had made a good decision for the E-care service.

4. Most interviews are made through telephone and secondary data from them, it hard to visualize their attitude while talking to them.

5. Only one case has been studied, even though 15 people from different departments as the interviewees in the case, due to time limitation the case does not choose multi-cross company as objectives.
2. Literature review

“In this chapter the literature review in new service development process will be spreading out based on six categories mentioned in the first chapter; they are corporate environment, analysis, people, process, development and implementation.”

2.1 Background and literature review of the new service development process

2.1.1 Corporate environment

While there are always market opportunities, firms often have difficulty in capitalizing on these opportunities. Research studies have investigated barriers to innovation and the pre-requisites for new service development to flourish (Drew, 1995a; Ennew and Wright, 1990; Hodgson, 1986a; Thwaites, 1992). All these studies have stressed the need for a clear corporate vision concerning the role NSD is to play in organic business development. For NSD to flourish, top management must be committed to innovation, both in terms of the resources made available for development and with practical help. Clear goals must be set for the NSD program. In general, the culture of the organization plays an important role. There should not be fear of failure. Excessive bureaucracy can stifle innovation. Internal systems should support innovation and enhance communication. A lack of high quality and experienced development staff is a major barrier to innovation. Job descriptions and reward systems should ideally, also be linked to innovation. MacMillan and McCaffery (1984) suggest encouraging internal entrepreneurs as a means of pursuing aggressive product innovation. Many service companies do not, as yet, have a strategic focus on NSD and lack development competencies and appropriate organizational structures (Easingwood, 1986; Edgett, 1993; Martin and Horne, 1993; Scheuing and Johnson, 1989a). It has, however, been found that top performing banks have more formalised and better structured new service development programmes than lesser performing banks (Johne and Harborne, 1985; Johne and Pavlidis, 1996; Reidenbach and Moak, 1986). Johne (1993) found that few top insurance managers provide the sort of support that could be described as “envisioning, energizing and enabling” an innovation programme. Edvardsson et al. (1995) have identified further problem areas in the management of development projects. These include a lack of clarity.
in who “owns” the project, resulting in intra-organizational conflicts; and also co-ordination problems. As a result, there is often a lack of information about specifications and goals at the start of the development process.

2.1.2 Analysis

In general, many service companies find it relatively easy to generate new service ideas (Easingwood, 1986). However, until stimulated by deregulation, there remained an overall lack of radical innovation in services. Cowell (1988) cites the difficulty in patenting services as a reason for low R&D expenditures, as well as the concentration on improvement rather than innovation. In the past, much technological innovation has been driven by cost requirements (Langeard et al., 1981). In future, it is to be expected that this will change, and that competitive market forces and technology push will increasingly stimulate the development of higher quality offers. Owing to the ease of copying, competitors have until recently been identified as a more important source of ideas for new products than customers (e.g. Easingwood, 1986; Hooley and Mann, 1988; Scheuing and Johnson, 1989a). Teixeira and Ziskin (1993) found that approximately 80 per cent of banks view their competitors as the main source of new service ideas. Insurance companies are also guilty of making little use of customers, perhaps as a result of seeing the intermediary as the first-line customer (Davison et al., 1989). As a result, there is often a dangerous focus on “me-too” products, with most development being reactive and defensive in nature (Piercy and Morgan, 1991). It is important that research is not limited to idea generation, but that it is a continuous feature of the development process (Grden-Ellson et al., 1986). However, it has been found that there is a general lack of research between idea generation and launch (Davison et al., 1989). Concept testing is often carried out imperfectly in NSD because it is difficult to develop accurate concept descriptions or to demonstrate new service benefits to customers. Also, customers often have difficulties in articulating which precise benefits they prefer, which increases the uncertainty as to the accuracy of research results (Edvardsson et al., 1995; Langeard et al., 1986; Mohammed-Salleh and Easingwood, 1993). It is of interest that simulations and prototypes have been employed successfully in the hotel sector (Davis, 1988), and that new technology in the form of virtual reality are likely to be used in future (Rosenberger and Chernatony, 1995). There is widespread lack of sophistication in the use of market research in NSD (Edgett, 1993; Edgett and Thwaites, 1990; Gupta et al., 1990). This is in part due to the lack of a marketing culture, and also to the fact that a large number of new products are copies. While there is a widely held view that there is no need for market research because risks in copying are perceived to be relatively low, Ennew and Watkins (1992) and also Langeard et al. (1981) found that management’s perceptions of consumer preferences and intentions were frequently wrong. This indicates a need to invest in quality research. It needs to be stressed that quantitative research is generally not recognized as a reliable means of assessing consumer acceptance of new services.
The absence of a physical prototype and the difficulty of reproducing market conditions cause problems when conducting research for dominantly intangible offers. This suggests that more emphasis is needed on in depth qualitative research. To date, most research in the financial services sector would appear to consist of “off-the-shelf” reports (Davison et al., 1989). Such syndicated market data quantifies existing market and brand shares; identifies socio-economic characteristics of existing customers, and can to a limited extent be used to identify market opportunities. But it gives no insight into consumer behaviour. In researching the personal needs of the consumer in the financial services sector there are, of course, special problems resulting from any invasion of privacy and “sugging” (selling techniques dressed up as market research). Most service organisations use informal screening procedures (Easingwood, 1986, Edgett, 1993). In the evaluation of service developments, managers face the problems of allocating costs across shared delivery systems and estimating the cannibalization of existing products (Easingwood, 1986; Gupta et al., 1990; Johne, 1993). Typically profit, sales, and market share estimates are all used in analyzing the potential of projects (Martin and Horne, 1995). The chances of success and the different benefits arising from successful development need to be considered. One particular area that is stressed as being especially important is the link between the image of the new service and the image of the service organization as a whole (Easingwood, 1986; Langeard and Eiglier, 1983; Thomas, 1978).

2.1.3 Development

There are two main parts to developing a new service. Among a number of authors, Cowell (1984) stresses the need to first define the core service attributes and thereafter to define the service delivery system (bringing together people, processes and facilities). Lovelock (1996) also separates the service marketing concept (its benefits and costs) from the service operations concept (defining the operational requirements).

Edvardsson and Olsson (1996) argue that service development can be broken down into three activities:
(1) Service concept development;
(2) Service system development; and
(3) Service process development.

The service concept is the description of customers’ needs and how these are to be satisfied. The service system represents the static resources required for the service. These consist of the service company’s staff; the physical/technical environment; the organization in terms of its structure and administrative support systems, and also customers themselves as these can be considered “co-producers”. The service process is the chain of activities which must occur for the service to function. (Lovelock 1996), too,
separates the service marketing concept from the service operations concept. Both feed through into the service delivery process. (Langeard et al. 1986) suggest that service development is often confused with “network development” which can be considered an implementation problem. However this takes a narrow view of new service development. When considering the “offer”, any change in the network changes what the customer receives, and therefore is part of offer development. Operations staff therefore plays a critical role in the development process (de Brentani, 1989; Easingwood, 1986). One of the main problems found in NSD is integrating the needs of new services operations and processes with those of existing business activities (Langeard et al., 1986). Careful co-ordination is needed because of the interdependency of many development projects and service technologies (Edvardsson et al., 1995). Although marketing frequently has overall responsibility for new service development it often does not have overall responsibility for all associated activities, such as training or service testing (Gupta et al., 1990; Scheuing and Johnson, 1989a). Close coordination between all the functions involved in service delivery is needed (Langeard et al., 1981; Shostack, 1984a). In NSD, as has already been shown, customers themselves need to be involved in the design, for any new service must fit in with their systems too (Edvardsson and Olson, 1996). There has been little empirical research as to how to go about designing both core attributes and the supporting process of delivery. One exception is the work of Shostack (1981; 1984a) who proposes the use of “molecular modeling” and “blueprinting” to bring order to the process. The molecular model shows the way in which the tangible and the intangible elements of the service are incorporated into the final offer. It consists of symbols denoting the key product and service elements. These are the primary elements that are purchased and or used by the consumer. If these elements or their order is changed the whole entity changes. Essential and peripheral evidence (including people and the environment) are also included. Importantly, different models can be produced for different segments based on preferences for individual elements. Shostack (1981, 1987) stresses the advantages of “blueprinting” the operational process in diagram form. A service blueprint is based on time and motion theory; PERT project programming, and also system design techniques. A blueprint shows:

• time in diagrammatic form;
• all the main functions of the service;
• all possible fail points and processes to correct these; and
• the relationships between the front and back offices

It should be noted that the actual service will deviate from the blueprint in terms of duration, quality and customer satisfaction. This is because service development does not result in the production of the service itself; rather it produces what has been termed the service “pre-requisites” (Edvardsson and Olson, 1996). The actual service offer is only produced when the customer interacts with these pre-requisites

The following content will explain those activities from in order of service concept, service system and service process.
Service concept

Service concept will be highlighted, based on the customer’s perspective. It deals with the following three categories: 1. customer outcome, 2. the prerequisites needed to achieve the outcome, and 3. the customer process. Edvardsson (1997)

![Diagram showing the concept of service as customer outcome, customer process, and prerequisites for the service.]

Figure 3 The concept of service as customer outcome, customer process, and prerequisites for the service. Edvardsson (1997)

Service-A customer Outcome

The service concept must be viewed from a customer’s perspective. As stated, it’s the customer’s total perception of the process and outcome that make up the service and is the basis for quality perceptions and customer satisfaction. Based on this, one can argue that the main task of new service development is to create the prerequisites for high quality. High quality could mean fulfilling customer needs in a satisfactory way or that the customer’s expectations are met or exceeded.

Service-A customer Process

A service is produced in a process that may view as the service product. This process differs from the production process of physical products, as the customer often is a co-producer in the production of the services. Customer participates or passively carrying out different activities. These activities compose the customer process and are part of the overall service process. This process can be divided into the technical part, meaning
activities carried out by machines, computers, etc, and movement staff, including activities where the staff is supported by technical processes and systems.

The customer process is used in to clarify the customer’s role, participation and responsibilities in the service production process, it’s very important to design simple, user-friendly, pedagogic processes, which are easy for customer and employees to learn. The easier it’s for customer to co-produce, the fewer mistakes are made and the higher quality can be achieved.

By transferring activities to the customer, productivity usually improves. It also increases the flexibility, which has a positive influence on the customer’s experienced quality, this is often done as most nowadays’ new service include some form of technology. For example, today the customer can transfer money accountants through internet based bank without any contacts with the tellers, This means the customer handles the job himself instead of entering into the bank, standing in the queue and having a teller make the transactions. In this way, a customer now is the sole-producer of the service.

**Prerequisites for the service**

The prerequisites for the service are the end result of the service development process. The goal is described by means of a model with three basic components; service concept, service process and service system (Edvardsson and Mattsson, 1992.) The term service concept refers to the description of the customer's needs and how they are to be satisfied in the form of the content of the service or the design of the service package. Correspondence or agreement between customer needs and the service offer is essential. The outcome the customer perceives determines the customer's perception of the quality of the service. Service process relates to the chain of activities that must function properly if the service is to be produced. Certain activities are more problematic or critical than others. Special attention should be paid to these so that the customer process and the customer outcome achieve the right quality at reasonable cost. The service process is the prototype for every customer process. The service process consists of a clear description of the various activities needed to generate the service. The service system constitutes the resources that are required by or are available to the service process in order to realize the service concept. It may be described in terms of a number of components. In our model these are the service company's staff, the customers, the physical technical environment and the organizational structure (Edvardsson and Gustavsson, 1990).
Service Concept

The service concept is the description of customers’ needs and how these needs are to be satisfied. It refers to the utility benefits and values the service and its various supporting services are intended to serve and pass on to the customer. The service concept covers both the description of the customer needs to be satisfied and how they are to be satisfied in the form of the content of the service or the design of the service package, e.g., expressed in terms of core service and supporting services. Edvardsson (1997) claimed that the service concept is a detailed description of what is to be done for the customer (= what needs and wishes are to be satisfied) and how this is to be achieved (= the service offer). The service concept specifies the domain of needs with respect to extent and nature (= both primary and secondary customer needs) and the service offer (= both core service and supporting services) to meet this domain. Correspondence between customer needs and service offer is crucial. The service concept forms the point of departure and defines the demand for the prerequisites that must be present for a service with the right quality to be realized.

A. Customer needs

B. Design of the offer

![Diagram of the service concept](image)

Figure 4. Model of the service concept Edvardsson (1997)

The service concept is a detailed description of what is to be done for the customer in terms of primary and secondary needs and how this is to be achieved through the core service and supporting services. It’s crucial that the links between needs and services are clear and logic since this defines the prerequisites that are needed to put the service into practice. At the stage of the processes it’s important to keep in mind that individual service from part of system together with other services that might affect each other.
The Service System

The service system includes the resources available to the process for realizing the service concept. The system forms a whole where the sub-systems must function separately but also together with other sub-systems. In Edvardsson (1997) model the various sub-systems of the service system or, put in other terms, the resource structure is made up of the service company's staff, the customers, the physical/technical environment and organization and control. In the following we describe each of these resource categories.

Figure 5 Model of resources categories in service system Edvardsson (1997)

*The service company's staff.* The staff is usually seen as the service company's key resource. Studies show that the customer’s perception of the service quality depends a great deal on how the frontline employees treat them. Front-line employee is synonymous with the service. There are number of desirable qualities for the frontline employees. The most important is knowledge and experience, motivation and enjoyment. We believe it correct to focus on the staff in this way when developing services. There are, namely, studies which show that the customer's perception of the quality of a service depends to a great extent on how he perceives the staff as regards, for many customers, individual staff are
by and large synonymous with the service. To do a good job, the staff, in the company and the company's partners, must be knowledgeable, motivated and committed. Knowledge and experience alone have proved to be insufficient for high performance in service companies. Motivation and enjoyment in work are also necessary. Motivation is primarily achieved through work content, relations with fellow workers and one's immediate supervisor, and relations to customers. If we are successful in designing attractive jobs and a stimulating work environment, this will probably be the most important quality-creating factor in service development. It is a reasonable assumption that the choice of staff and their training education should be an integral part of the development of new services. The staff is often the crucial factor for customer-perceived quality but in some cases they are also the dominant factor on the cost side. Wage costs are on average much higher in service companies than in manufacturing companies. This is a further important reason why staff should be given special status when designing new services. The production system becomes a socio-technical system with the focus on the staff, which should result in the right service and high productivity. The recruitment, training, development and outplacement of staff are often not handled in a systematic and professional fashion in Swedish service companies. Furthermore, the analysis of work content and job design, tasks and reward systems are important but often neglected areas in service development.

The Customers

Naturally the customers are also an important part of the service system. The service company often needs access to the customer’s knowledge and his or her ability to assimilate information. It is not just a matter of the customer's knowledge and his ability to assimilate information but also, for instance, the equipment he uses and the administrative routines employed in the customer company. All this is part of the service system and thus influences the prerequisites for the service. Marketing plays a central role in relations with the customer in establishing quality from the outset. Marketing consists of establishing and developing mutually trustful and profitable customer relations. Marketing is much more than advertising and sales visits. It also includes the design of invoices, dealing with customers on the telephone, information material, the image the media project of the company, but above all the perception of the customer outcome and the customer process. In order to give the right promises, one must understand customers’ needs, wishes and expectations and co-ordinate one's marketing accordingly. The service system should be so designed that it is easy for the customer not only to take part in but also to actively contribute to the process. When developing new services, it is necessary, we have found, to organize the following: firstly, interaction between customers, e.g. queue system when the service is overloaded; secondly, the customer's relationship with the company's organization as regards routines; thirdly, the interaction between customers and staff; and fourthly, the interaction with the physical/technical environment. The exchange, with the customer in the centre, should be
organized so that the customer can make the best contribution both by providing information and by performing various parts of the service process.

**The physical/technical environment.**

The physical/technical environment includes premises, computers and other technical systems but also the equipment at partners' and customers' premises. The continuous improvement of the technical environment through the utilization of opportunities offered by technical developments may be absolutely essential for the survival and development of the company. At the same time it is becoming increasingly obvious that technology is not a goal in itself but a means, a means of creating favorable conditions for increasingly better services and increasingly more profitable business deals. Technical developments should be customer-driven and business-driven. Technology-driven developments seldom result in the best added value, the most attractive services and the best customer-perceived quality. Technical developments alone, even if they are business-driven, are insufficient. Other parts of the service system - the staff, the organizational structure, the administrative regulatory systems and the customers – must interact with the technical environment. Technology and equipment mean possibilities and limitations. It is a matter of identifying and benefiting from the advantages and possibilities and avoiding the limitations in the service system. Naturally, it may be necessary to change the physical/technical prerequisites to create the right prerequisites for a new service. However, the normal situation is that a new service is, to all intents and purposes, dependent on and must work within the framework of the existing technical environment. The physical/technical resources can have different features and functions, and they can fit more or less well together. It is important, of course, that they do not just work with other physical/technical resources but also suit the organization and are adapted to customer and staff logic.

**Organization and control**

The fourth component in the system is organization and control. This includes, first of all, the organizational structure, i.e., the division into activity and profit centre. The organizational structure must clearly define responsibility and authority in an appropriate manner. Is the responsibility for the various activities in connection with the introduction of a new service clear? Have responsibility and authority been appropriately delegated? Are profit centres and other activity centres logically and suitably organized with respect to their tasks? Is the company organized to focus on the customer's needs, the service and business? The second aspect of organization is the administrative support systems. These
systems, e.g., planning and information, financial system and wage system play a key role in controlling the business. The administrative support and control systems require information and supply information about individual services. How the systems for handling administration in service companies are designed is often of much greater importance for the prerequisites for a service than most people realize, in connection with service development even the administrative systems must be adjusted or complemented to produce a workable service. Thirdly, the interaction, dialogue with customers and other interested parties - in the first place, partners and suppliers - is an important part of the organization and control of the service system. This includes, for instance, how feedback is achieved, how complaints and customer dissatisfaction are handled but also opening hours, telephone times and the possible VIP treatment of major or faithful customers. One aspect is how easy it is for customers to contact the company, a specific department or individual in the company; for example, is it easy to find the person responsible for a certain task, the person or department one wants, or does the company provide parking for visitors?

The fourth aspect we include is the organization of the various activities connected with marketing. There are three important tasks in marketing that need to be organized and controlled. Firstly, using market and customer analyses to understand the competitive situation, customers' needs and demands, and customer logic. Secondly, ensuring that realistic expectations are created. Thirdly, teaching customers how to act to have in the role to co-producer. Before approaching customers on the market, it is essential to create the right internal conditions and understanding by means of internal marketing to staff and partner. The service process is the chain or chains of parallel and sequential activities which must function if the service is to be produced. The service process consists partly of activities at partners' and customers' premises. The company thus does not have direct control over all parts of the process but must nevertheless be able to control the process in its entirety. All pans of the service process are important but some sub-processes or activities are more problematic or critical than others. Special attention should be paid to these to ensure that the customer process and customer outcome have the right quality at reasonable cost. The interfaces between departments within the company and with partners and customers are parts of the process which are often difficult to control. What is then the difference between service process and customer process? Service process refers to the prototype or model for various customer processes. It must be able to handle several customer-specific processes. The service process consists of a precise description of various standardized and (alternative) activities in the customer process. These activities do not take place until the customer activates the service process. The activities to be performed are indicated by the service process, i.e., the prerequisites for the customer process. As the complexity of streams of processes increases, so does the probability that a company will lose control of the characteristics that are necessary to meet customer expectations, add value, and hold down costs. The result is the worst of two worlds: as the quality level falls below customer expectations, the cost of producing the product or service increases out of proportion to the value added. (Conti, 1989) To generate a service which meets the service concept in all respects, it is necessary to
determine in detail the process, including micro-processes and individual activities, which will ensure the right service. Quality and productivity must be built in from the beginning by developing the 'right' service process. We maintain that it is necessary but not sufficient for all departments to participate in the development of the service process. Despite this, there is an obvious risk that each department or function will optimize its 'own' processes and not heed the whole and the inter-functional dependency relations which exist in all organizations. Important managerial tasks in connection with service development include, firstly, creating an understanding of the customer outcome and customer process; secondly, involving the customers in the development process, helping customers articulate their needs, even those that are implicit, and 'attaching importance. Internal marketing first and then external marketing

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those that are implicit, and 'attaching importance to the customer's voice'; thirdly, involving strategic partners and suppliers when they are affected. During the process various parts of the service system are utilized. The system i.e. static, it provides the necessary resources, whilst the process i.e. dynamic, consisting of activities which are linked in micro processes to form the service process. This process should be designed to utilize the possibilities of the system, not least the service company's staff, and to handle its limitations in the best way. Many new services are more or less dependent on the conditions in the existing system. This means that staff with knowledge and understanding of the possibilities and limitations of the service system, not just at a general level but also in detail, should be involved in service development. Without this contribution it is difficult to see that the service system will support the service process, which is our point of departure. An important aspect of the service process is the so-called line of visibility, i.e., which parts of the service system the customer should and should not see during the customer process. Seeing the restaurant's kitchen and perhaps the raw materials, and experiencing the smells may influence the customer-perceived quality positively or negatively. Standing in a queue at a bank and, at the same time, seeing the staff behind the counter taking a break is an indication that the line of visibility is poorly drawn. Studies show that in many instances the service system has in-built recurrent defects, which create more or less serious problems in the service process for instance, (Edvardsson and Gummesson, 1992). In some cases it may be said that the system puts a spoke in the wheel of the service process, which, of course, was not the intention. We must conclude from this that the service process and service system should be developed interactively on the basis of the possibilities and limitations of the latter. The service system may need to be changed and developed but the consequences of these changes for other parts of the system must be simultaneously taken into account.

2.4 service process

The concept of process was defined in industry but also be used in service management. Ford Motor company defines the process as"the whole combination of people, equipment, input materials and environment that work together to produce output". According to AT&T a process is “any set of conditions, or set of causes, which work together to produce a given result.

The service process could be describe as a chain or chains of parallel sequential, overlapping and or recurrent activities, which are necessary if the service is to be put into practice. As a result of the fact that the process partly consists of activist at customers’ or partners’ premises, the company does not have direct control over all parts of the process. Nerveless, the service company needs to be able to control the entire process. Some sub-processes or activities are more problematic or critical than others. Special attention should be paid to these to ensure that the customer process and customer outcome have
the desired quality at a reasonable cost.

Following figure Edvardsson (1990) is a model of the service process. The process includes both external partners such as supplier, internal organizational units or internal customers, and external customer. Each may have different quality requirements and expectations.

![Diagram of the service process]

Figure 6 The service process Edvardsson (1990)

2.5 People:

As has already been stressed, people involvement is crucial in NSD. There are three groups of individuals that must be managed in an effective development project:
(1) The development staff;
(2) The customer-contact staff; and
(3) The customers
The lack of skilled and experienced development staff is one of the key barriers to product development in service firms (Drew, 1995a; Johne and Harborne, 1985). It has been stressed that it is important to adequately reward development activities (Atuahene-Gima, 1996a; Scheuing and Johnson, 1989a). In addition, there should be no fear of failure. Many service companies adopt a project team approach and employ product champions. These have been found to be important in pushing the project through the development process (Dover, 1987). A greater commitment to team working and empowerment has been found to be associated with faster product development (Drew, 1995a). However, there is still a tendency for teams to be run on a committee basis (Edgett, 1993; Johne and Davies, 1993). Lovelock (1984) stresses the need to create a “task-force” that is insulated from day-to-day functional pressures. It is important that neither marketing nor operations dominate new service development, rather the approach should be truly cross-functional (Johne and Harborne, 1985; Johne and Pavlidis, 1996; Langeard et al., 1986). The second group of people who make a direct contribution to service development are the front-line staff. Schneider and Bowen (1984) identify four distinct benefits of encouraging employee involvement in new service development:

1. It helps identify customer requirements;
2. Involvement increases the likelihood of positive implementation;
3. It helps stop process efficiency considerations overwhelming the needs of customers;
4. It can lead to employees treating customers better.

Employees are, however, often reluctant to get involved in development activities as new products may increase their workload (Davison et al., 1989; Easingwood, 1986; Scheuing and Johnson 1989a). Job design; team working; choice of staff; training, and reward systems are all important (Edvardsson and Olson, 1996). Related to this is the importance of internal marketing: the need to sell the idea to the internal customer, as they will be affected by the new service introduction (Langeard et al., 1986; Lovelock, 1984). The final group of people who are important in NSD are the customers themselves. It is important to involve customers in the development process and help them articulate their needs. In general, the more involvement by customers the better, though on the whole customer involvement in service product development has been found to be relatively low (Martin and Horne, 1995). Edvardsson and Olson (1996) make a number of important observations with regard to the customer’s role in development: the service process, involving multiple interactions with customers – those with other customers; with staff; with the physical environment, and also with technical systems – needs to be customer-friendly and adapted to human logic. The best people to judge this are the customers themselves. The role of the customer in service production must be made clear to the customer; and, if necessary, the customer may need to be trained. In this way, as argued by Schneider and Bowen (1984), customers can become “partial employees”.

2.6 Implementation

Implementation is regarded as the most critical stage in new service development (Schneider and Bowen, 1984). This is where the plans regarding the service concept and the service process are put into action. Shostack (1984b) splits implementation into three phases:

(1) Implementation of the operations plan;
(2) Implementation of the communication strategy; and
(3) Market introduction.

During implementation the need for extensive testing and training is recognized (e.g. Scheuing and Johnson, 1989a). Training should not just be confined to service personnel; customers, too, need to be taught how to use service innovations. Communications can play a vital role in controlling customer expectations about the new service (Edvardsson and Olsson, 1996; Schneider and Bowen, 1984). Prior to market introduction, the use of test marketing is widely advocated, as it is easier and cheaper to correct mistakes in the design of a service and in the service support systems at this stage than after a formal launch. For example, Langeard et al. (1986) consider test marketing to be more important than market research, as research is not a reliable means of assessing consumer acceptance of new services. Although research does give broad customer reactions, it is considered important to create a service experience that the consumer can evaluate, to make sure the service is operating correctly. However, as already mentioned, test marketing is seldom carried out. Instead of test marketing, banks, building societies and insurance companies frequently introduce a new service with limited promotion. A number of other factors have been cited as reasons for the widespread lack of testing (Davison et al., 1989; Easingwood, 1986; Mohammed-Salleh and Easingwood, 1993; Reidenbach and Moak, 1986): financial loss from service failure is low in comparison to the cost of testing; the ease of copying of the service by competitors who could benefit from information from the test; lack of time, as many new services are copies, speed of launch is important; market reaction to “copies” can be easily estimated; little difference between the cost of testing and the cost of going “live”; many new services are introduced to complete the product line rather than purely for profit; offering new services at only limited sites restricts the perceived overall value (e.g. the benefits of an ATM service is affected by the number of available locations).
2.7 Measurement of success

A method widely used by researchers for assessing whether a NSD has been successful is to ask those involved in its development to categories it as an overall success or failure. A number of detailed questions are then asked of the respondents concerning the type of success or failure on the one hand, and on the inputs used on the other hand. Following data analysis, researchers are able to demonstrate levels of association between the output variables (degree or ascribed type of success or failure) and the input variables. Many of the findings of such studies are, however, not replicable in a truly scientific way because researchers have failed to state clearly the controls used with respect to the:

• initial purpose of the NSD;
• context within which it was attempted; and
• precise criteria used to assess results.
We deal with each of these control aspects in turn.

The initial purpose of the NSD

Although it still requires confirmation through empirical enquiry, it is likely that different types of NSD can be used to serve the same business development purposes. The issues involved have already been discussed. Because particular business development thrusts can be supported differently, researchers have shown widespread reluctance to elicit from respondents the precise purpose of NSD activity; possibly for fear that this will reveal a less than coherent jumble of initial purposes. However, sidestepping the fundamental issue of purpose makes for great difficulties in identifying drivers of specific performance. None of the six major empirical studies into NSD success or failure discussed in the previous section controlled explicitly for business or personal development purpose. Empirical research is needed in this area to discover:

• What initial purposes are aimed at by managers pursuing particular types of NSD; and
• The extent to which particular types of new service developments can serve subsidiary business and personal development purposes.

The context of the development

The corporate context within which NSD is pursued is also rarely controlled for. Most empirical studies have treated respondents as coming from similar companies; competing in similar industries; competing with similar offers; and pursuing a broadly similar business strategy. All these contextual factors need to be controlled for. It is, after all, important to know whether adequate resources, as well as adequate top level support are made available for NSD. In particular, whether NSD was pursued on a piece-meal basis, or whether it was pursued as part of a strategic programme based on a wider vision of market opportunities. Equally important is the amount of organizational learning required...
to be undertaken. What is regarded as a fairly minor NSD in an experienced firm will represent a major challenge in a firm which has little experience of NSD.

The criteria used to assess results

It was argued earlier that the purposes of NSD should determine the way performance is assessed. If, for example, the initial purpose is to “reduce competition in the market by the introduction of a low-cost product”, return on investment is almost certainly not the appropriate performance measure to apply. This illustrates that simple, one-dimensional, measures of performance are inappropriate in any but the most circumscribed (or controlled) NSD endeavors. Empirical researchers have been reluctant to control for contextual factors. Instead, they have relied on measuring performance on a number of prescribed dimensions. For example, in a study of NPD success and failure,( Cooper and Kleinschmidt 1987) specified ten different measures from which they deduced through factor analysis the following three independent dimensions of performance:

1. Financial performance (e.g. relative profits to sales; profitability level, and pay-back period);
2. Window of opportunity (the degree to which the new product opened up new opportunities to the firm in terms of products and markets); and
3. Market impact (e.g. domestic and foreign market share).

The findings confirm that success on one independent dimension of performance does not necessarily mean success on the other two. This important issue is illustrated in studies into new services. For example, in an empirical study of success and failure in new industrial services, de Brentani (1989) prespecified 16 different measures of performance from which were deduced through factor analysis the following independent dimensions of performance:

- Sales and market share;
- Competitive;
- “Other booster”; and
- Costs

Similarly, in an empirical study into the relative success of new financial services, Cooper et al. (1994) prespecified 14 measures of performance from which were deduced the following three independent performance dimensions:

1. Financial;
2. Relationship enhancement; and
3. Market development. In an analytical study of NPD success factors,( Cordero 1990) distinguishes between the evaluation of:

a. Overall business performance (e.g. the percentage of new product sales as a percentage of the industry average);
2. Technical performance (the quality of the needed inputs and outputs);


His message is clear: no single measure is adequate on its own: managers should use a complex of measures to assess performance improvement aimed at through NSD. Griffin and Page (1993) attempted to identify all currently used measures of performance and to organize these into categories which serve the same broad purposes. They found that neither practitioners nor academic researchers use single measures of performance. Scrutiny of published empirical findings identified 46 different performance measures. Two further empirical studies added to the available measures, bringing the total up to 75. Subsequent expert opinion by group consensus and factor analysis identified five categories of performance measures:

(1) Overall firm benefits.
(2) Programme level benefits.
(3) Product level benefits.
(4) Financial benefits.
(5) Customer acceptance benefits.

Griffin and Page (1996) extend their analysis of performance by recommending measures for success and failure based on testing the hypothesis that the most appropriate set of measures depends on the firm’s project strategy and also on the overall business strategy. For this purpose respondents were asked to choose up to four measures that would provide them, as president of the firm, with “the most useful overall assessment of product development success”. They found success to be multifaceted and difficult to measure. It was found that a firm can assess success in many ways. With so many variables to consider, and so many stakeholders involved, managers must frequently sacrifice some level of success on one dimension to achieve success on another (Voss 1992) makes a useful distinction between measuring success of the development and measuring the performance of the development process. While success measures are likely to be related to the specific objectives, the performance of the development process is the facilitating mechanism for achieving success. As previous research has found, a well executed development process is likely to allow a firm to attain better results than a poorly executed development process. Clearly both measures are important.

Time can be measured over the short run or over the long run. It requires no stretch of the imagination to realize that a NSD project might be highly successful in its own right in the short run, but do harm within a broader NSD programme in the longer run. The reverse might also apply: an individual project might be a flop in its own right in the short run, but provide an invaluable learning experience within a broader programme of
NSD in the longer run. Depending on the viewpoint adopted, the same new product development can be classified as a success or as a failure (Hultink and Robben, 1995)
3 Research Methodology

In this chapter, the research methodology has been conducted, case study as the choice of the overall strategy, semi-structured interview is used as the method in data collection, data analysis using inductive strategy, process in doing the thesis validity and reliability are also included.

3.1 Choice of overall research strategy-case study

The literature review has shown that a limited number of studies have carried out in the new service development field under different culture. As a result the knowledge and understanding of the new service development is restricted. Case studies are preferred in a new service development field when the research is directed towards creating an increased understanding of complex process using empirical data as basis. Case research was the main methodology for two reasons. First, the review of extant literature highlighted the thin understanding of the nature of user involvement in new service development, confirming the need for more theories in the area, and case studies address theory building rather than theory testing (Bonoma 1985; Wilson and Vlosky 1997). In the early stages of theory development, quantitative research methods may lead to inconclusive findings (Parkhe 1993). Second, qualitative methods such as the case method of research facilitate in-depth analysis of the complex and ill-researched activities and phenomena, such as new service development and user involvement (Bonoma 1985; Yin 1994). However, the case research methodology has been criticized for being less codified than those for theory-testing methodologies such as surveys and experiments. But case study research can be carried out rigorously, and its data collection process can be structured (Adams, Day, and Dougherty 1998). Thus, a systematic process of conducting case research was followed in this research. The chosen case studies should be fulfilling the following criteria. Firstly, the services development process should be relatively recently developed. This is very important if the interviewed persons are remembering the service development process without neglecting any interesting aspect. Secondly, the interviewed persons should know all process in the service development and have been conducted each phase of it. In depth were conducted in the case and 15 persons who have involved in the E-care service.

3.2 Choice of the interviewees

This study is from the perspective of Chinese employees who are working in Lenovo
Company, so they should meet:

Be as a team member in E-care service

They were experienced practicing managers in service development or a related position;

Finally, 15 Chinese employees who meet these criteria have contacted, they came from the five different departments and three of them are the managerial staff of E-care. They are at different ages and different positions in the R&D department, HR department, marketing department, exclusive department, and system department. Furthermore, some of them are male and some are female; and they are in keeping with the desire of this research, which could know the overall view on this issue from the employees.

Through telephone and internet interviews, they share their experiences and opinions with me on the difference management about E-care service fully; the in-depth information and detail were secured.

Following Table displays the number of interviewee in respective organization

Table 1 The number of interviewees of the case

<table>
<thead>
<tr>
<th>Department</th>
<th>Position</th>
<th>Number of employees</th>
<th>Number of interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR</td>
<td>Manager and staff</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Marketing</td>
<td>staff</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Exclusive</td>
<td>Manager and Staff</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>System</td>
<td>staff</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>staff</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Vice CEO</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
3.3 Data collection

Fieldwork for data collection was conducted in four phases. In the first phase, I contacted the project manager Lin over email and asked if he could offer some information about the E-care service and crucial people involved in, he replied to me soon and we fixed the time for a deep interview over the phone. Second, interviews with the managers were conducted. The interviewees were first asked to tell the story about process new service development in their own words. Then the interview became more structured when a number of predetermined questions based on research questions were asked. Third, some deep questions pop out such like what do you think the crucial factors in each phase. All the interviews were tape-recorded, and detailed notes were taken during the interviews. During and after the interviews, several documents and archival records were consulted to the data provided by the respondents. Some small scale interviews have been done again due to the rough description in certain stage. Interviewees are conducted again over phone or instant messenger and some in depth questions were asked. After this transcripts are organized and written down in English.19 interews are conducted and 15 people as the interviewees, about an hours spent on each of the interview. At last phase, the data were analyzed and translated into English. Some of documents have been sent by part of interviewees and some of the related contents from documents are also summarized and written down in transcripts.

In the end, the results of the interviews were written down in comprehensive reports and given back to the respondents, inviting them to correct errors of fact and supply additional information. A follow-up interview was required to complete the protocol questions and to further probe new issues that emerged during the interview process. That is, several follow-up questions were asked to explore the overall process of new service development. The use of follow-up questions is consistent with the “laddering approach” (Durgee 1986) and the “narrative approach” (Mishler 1986) in qualitative research.

3.3.1 Semi-structured interview

The researchers have a list of questions on specific questions related to research questions to be covered. Questions are asked during the interview were not follow the exact structure and outlined as scheduled. But and at large, the questions are asked similar wording to be used from both interviewer and interviewees.

Three steps involved in this process. The first step is in getting an interviewees involved and ask them by name, department and time in working of company, the second step is to
stress the legitimacy of the research by drawing on the association with university, non-commercial, confidential nature of the research, briefly, an short introduction by myself. The third step is to make the research sound unthreatening and simple, by using the question such as: I am looking into problem of the service development process in E-care, wonder if I could talk to you about it over the phone?

3.3.2 Transcripts

After reviewing those interviews three times, some portions of them are not very useful, because sometimes, the interviewees’ answers are not relevant to my research topic as what I had hoped. There seems little point in transcribing material that you have know is unlikely to be fruitful.

In the end and due to the time limitation, some major points of the interviews are written into transcripts and translated them into English afterwards.

3.4 Data analysis

In this thesis, the case study approach was used. Case study research is suitable for explanatory, descriptive and exploratory research ((Blumberg 2005, pp190), it can provide detailed explanations which survey methods usually miss out, leading Subsequently to new insights which have not been considered previously (Eisenhardt, 1989; Yin, 2003). Due to the tight working time schedule, several employees and managers are interviewed by using in-depth case studies which based on interviews.

All empirical information was collected from the qualitative interviews. The research analysis has been obtained after data collection. Due to every interview has been recorded, this study summarized the result of each conversation in detail when all interviews had finished, then analyzed the similar and different points among these interviewees’ opinions. Qualitative interview can be seen as better in bringing out and capturing the issues of importance to the interviewee, and that interviewing would allow more room for explanations from the interviewees (Blumberg 2005), at the same time, the interviewees can be given some additional questions and supplemental information through observation. The data can be analyzed completely. The data has been analysis by using (Alarm2003) ten stage service development process model.
3.4.1 Structuring data

After the completion of all empirical data, all the data are mainly structured by using Alam’s ten stage model. Data is structured basically by the linked actives by ten stages model. Alam’s model and activities by producer is shown as follows:

Lan Alam mentioned four crucial stages in the planning phase of new service development service. They are

1. **Strategic planning**: chart the direction; corporate objectives; mission of the Limited feedback on proposed plan for new service business. Identify users for involvement to leverage development users’ expertise.

2. **Idea generation** Internal and external search for the ideas. Probe customers’ State needs, problems, and their solution; criticize existing needs, wants, and preferences and their choice criteria, service; identify gaps in the market; provide a wish list likes, and dislikes; seek competitive product ratings. (Service requirements); state new service adoption criteria.

3. **Idea screening**: Feasibility analysis; attribute analysis; gather users’ problems and their solutions, elimination of weak concepts by analyzing how these customers’ needs and access customer purchase intents look for pretend legal and regulatory issues.

4. **Business analysis Economic analysis**: justify the project, that is, payback Limited feedback on financial data, including profitability analysis and net present value; market assessment, of the concepts, competitors’ data. Profitability analysis; drafting of budget for each concept; commitment of resources by top management; detailed competitive analysis.

5. **Formation of cross functional teams**: Adopt a team approach and select a team leader; induct Join top management in selecting team members. Functional team users into the team; ask each team member to adopt a role he or she would prefer to play in the development process.

6. **Service design**: Combine the service attributes identified earlier with their review and jointly develop the blueprints; suggest in process/system delivery process, including service delivery personnel; improvements by identifying fail points; observe the service design map this process jointly with the users; develop documentation, delivery trial by the firm personnel. Compare their wish implementation and final service design
blueprinting; find out list with the proposed blueprints of the service. Service delivery time; install, refine, and debug the service delivery mechanism.

Resource categories in system (Edvarsson et al 2000): Management and staff, organization and control, customer, physical and technical resources

7. Personnel training Train the service delivery workforce; prepare them for Observe and participate in mock service delivery process; encounters; manners and attentiveness are the key criteria; suggest improvements. Ensure consistent service quality.

8. Service testing and Test the blueprint. Implement design change and refine-Participate in a simulated service delivery processes; test to prove the service under real-life conditions; get final improvements and design change. Determine users’ acceptance of the service.

9. Test marketing Develop marketing plan and test with the users; examine Comments and feedback on various aspects of the market salability of the new service; examine the marketing mixed option in different markets

10. Commercialization Plan promotional campaign. Appoint distributors and brokers; roll out in the market; look for potholes; modify according to the market conditions.

In the service design and process stage, Edvardsson et al (2000) resources of service system model have been used and detailed by each category.

3.4.2 Inductive strategy

Inductive study is an approach to the relationship between theory and research is primarily inductive, with an inductive stance, theory is the outcome of research, in other words, the process id induction involves drawing generalizable inferences out of observations. The induction connection is:

```
Observation s/Findings  →  Theory
```

Figure 7 the process of inductive strategy

However, inductive researchers often use a grounded theory approach to the analysis of
data and to the generation of theory. This approach, which is first outlined by Glaster and Stranuss (1967), is frequently regarded as especially strong in terms of generating theories out of data. This contrasts with the nature of many supposedly inductive studies, which generate interesting and illuminating findings but whose theoretical significance is not entirely clear. Secondly, an inductive strategy of linking data and theory is typically associative with a qualitative research approach.

The process of induction can be broken into following phase; first, in reviewing the literature, the general picture of new service development is captured. Second, some interviews are conducted and written down in Chinese, third. Those interviews are translated into English and induct into different stages, fourth, related to some part with too rough answers some in depth interviews are conducted again related to the specific topic such as detailed information included in service system.

After completeness of all interviews, grounded theory of Alam’s ten stages model of new service development. The process of developing E-care is structured as eight stages in the end.

### 3.5 The structure of the study process

Following graph shows the process in doing this paper.

Figure 8. The process of developing this thesis
Literature review

Interview design

Interview people via phone

Identify the research question and theory

Identify the structure of thesis

Collecting data

Summarizing material from interviewee

Use the reliable and scientific method to analysis the data

Conclusion
3.6 Reliability

Reliability means if a later investigator followed the same procedures as described by the previous investigator, the later investigator would arrive at the same findings and conclusions (Yin 2003). So the concept of reliability indicates how replicable the research is, which reducing random errors and biases. In this research, a high level of reliability is reached, firstly, every interview were hold about 1 hour according to some questions that have been asked during the interviews and all of them were recorded, secondly, the questions was designed based on the existing theory; thirdly, the recordings are transcribed which are controlled in order to re-examine the accuracy of the material.

On the other hand, interviewees are conducted with one person per time, the purpose is to prevent bias which may influence by the other one; furthermore, questions were Open-ended. The materials which this thesis used are all the common points of the interviewees have, to increase the reliability.

3.7 Validity

Validity can be defined as representing a good fit between theory and reality in the sense that when a description of a process is evaluated there are occasions when intuitively there is an aspect which does not fit with reality (Remenyi et al 2002). It consists of three types of validity: construct validity, internal validity and external validity

Construct validity according to Emory & Cooper (1991) is a criterion that in attempt to evaluate it that we must consider both the theory of which the construct is part and the measurement instrument being used. In order to increase construct validity, this research conducted case study with multiple source of evidences, moreover, the interviewees were come from different departments in Lenovo, So it can be said it with high construct validity in this thesis.

Blumberg (2005) defines internal validity is about whether the conclusion we draw about a demonstrated experimental relationship truly imply cause. In this qualitative research, I paid lots of attentions to understand the perspective and view of interviewees, but also tried my best to present these constructs in an honest manner, reflecting a holistic interpretation of observations. Moreover, every interview was recorded; numbers of measures have been taken in this research to ensure a high level of internal validity.

External validity refers to the possible of generalizing finding beyond the studies sample
to a greater population. In generally speaking, the qualitative research is weak than quantitative research in this criterion, however, this research conducted with one case studies in five different departments in organizations, which enhance the external validity.
4. Empirical material and results

This chapter is a case induction using E-care service as the empirical case. An overall picture of the company and E-care service is discussed, following with this is the service development of e-care. Alam’s ten stage model is used in structured empirical data, in the end of this chapter quality aspect of the company is conducted too.

4.1 Introduction of Lenovo

Lenovo is one of the world’s largest makers of personal computers. Formed by Lenovo Group’s acquisition of the former IBM Personal Computing Division, the company develops, manufactures and markets reliable, high-quality, secure and easy-to-use technology products and services worldwide. Their mission is to provide businesses and consumers with smarter ways to be productive and competitive and to enhance their personal lives. Operating in more than 60 countries, they dedicated to serving the needs of our customers, partners, investors, employees and local communities with a business model that is based on:

Innovation
Operational efficiency
Customer satisfaction
Sustainability

Lenovo is one of the world’s largest makers of personal computers, including the renowned ThinkPad® notebook as well as products carrying the Think Centre®, Think Station® and Idea Pad® sub-brands. Formed by Lenovo Group's acquisition of the former IBM Personal Computing Division in 2005, Lenovo today is a world leader operating in more than 60 countries and providing businesses and consumers in more than 160 countries around the world with innovative products.

4.2 An introduction of E-care service

In Lenovo, their norm of the enterprise is customer delight, and innovations exceed expectation. Nowadays, Lenovo owns the largest net coverage in China and 1514 authorized service station.” Lenovo offering solve customers’ problem within 2 hours and
service station is 24/365 available.

E-care service was launched in March 2008. The norm of the e-care service can be summarized in three numbers: “360”.

3 means three types of technology are combine together---customers can get service from telephone, internet or as an end user. In this case, customer can get any service over the hotline 800 or getting registered through internet by downloading the supporting software or getting help from engineers personally.

6 means six types of special service includes: sending requirement of service online, making service reservation, long-distance expert, intelligent repairing, individualize service, and intelligent robot. Once customers meet problems they could send requirement of service online and maintenance worker will come to pick up the PC personally. Making reservation can help customers register when and where he/she wants PC get fixed over internet, once they arrive at the service station, data of their PC and repairing parts are already waited for them there, it saved much time for customers. The function of intelligent repairing is offering for customers do not need help from maintenance workers, customer can download the software and the driver installing can exam the system and fix the problem by itself. If customers had problem in using internet or software,” long-distance expert may help you in getting contacted with expert from Lenovo as face-to-face communication, expert will control customers’ PC and fix the problem at the same time, in this way, customers are able to know how to fix the problem and may fix it by themselves next time. Individualized service function offering customer in sending code over SMS, customers can find the solution to their problems in inputting code online.

0 means without distance with customers and offering them individualized caring. In a word, Lenovo’s aim is letting their customer get the best service from expert group or using the easiest and fastest way any time.

4.3 Service development process of E-care in Lenovo

In order to gain a deeper understanding of the service development process, that’s how the service has gradually been developed. These concept need to be put into a large context and be connected to different phrases in the service development process. The empirical result from Alam (2003) determines that the service development process can be divided into ten different phrases: 10 stages of the development process, including strategic planning, idea generation, idea screening, business analysis, formation of the cross-functional team, service and process design, personnel training, service testing and pilot run, test marketing, and commercialization. I will use this model to analyze the
E-care service of Lenovo.

### 4.3.1 Corporate environment

E-care service has developed under a strategic service culture and values of the company. I have understood the central role that culture plays in organizational learning and performance. E-care can be overviewed understand both the concept of corporate culture and more specific concept of customer-centered service culture in the field of service management.

**Corporate culture**

Customer success, entrepreneurial innovation, integrity, multiple win are common values that exist in Lenovo. Following Gronroos (1990), corporate culture is used to describe a set of more or less common values and norms. Corporate value is beliefs that certain ways of doing business, such as the way in training employee and building relationships with customers. In the service management literature, the culture of philosophy of an organization has always been the basis of company’s service system. Innovation and customer success can be seen as the basis philosophy of E-care service under this corporate value. E-care developed with many innovative ways such as the first company integrated call center, internet and service station, in the stage before industrialized they have launched pilot run and interact with customer to get their feedback before the prototype comes out. In conclusion these innovative activities are based on satisfying customers’ wishes and needs.

**Customer-service culture**

Lenovo indicates speedy, simplify, innovative and low cost as the basic service culture with customer orientation, board focus with world perspective. Bowen and Schneider (1995) emphasize that corporate culture is the basis of a customer service culture since the culture employee experiences will be the culture customers’ experience. The service culture can be seen as a sub-part corporate culture. All those elements of customer service culture are customer orientated and strongly technology orientated. E-care is technology orientated cased on the seamless system of call center, service station and web service.

**Business strategy and linked activities**

Homogenization has been an obvious problem in PC industry nowadays. Lenovo
launched the e-care service by 2008 with consideration of main competitor Dell in Chinese market. It's hardly to distinct their products from others by improving quality or technology, Competing in Service become the core competence of the company.

Launching the e-care service also following the business strategy of Lenovo, Lenovo has it own strength, techno and finance. In improving the core technology, with the supporting of Chinese government. After integrating IBM personal computer business in 2007 Lenovo turns to improving their service as core competence.

The corporate value is summarized as following four categories:

Customer success - our commitment to each customer's satisfaction and success.

Entrepreneurial innovation - They pursue the customer and the company is critical to innovation, while quickly and efficiently to promote its realization.

Integrity - They strive for trust, honesty and personal responsibility, whether internal or external.

Multiple win-win situation - They promote mutual understanding, value diversity, take a world view of our culture”

Lenovo also has its own strategic service theme, it can be summarized into four categories. 1st innovation. 2nd fastest 2nd speedy, 3rd low costs, 4th simplify.

1st innovation

From the year 1986, Lenovo never stop innovation in their products. Innovation should follow market trends. by the year 1990, Lenovo is the first one who divided their products into two main categories: family used and office used.

Innovation in positioning products. Lenovo positions their product for majorities with low price and high quality. At the meantime, Lenovo making innovation on the technology offering customers the easiest way while using computer.

2nd Speedy

In Aug 2008, Lenovo launched a new range of products --- LCD pc. Before that, an LCD computer with its high price is not provided for majorities. After that, majorities can afford it. After launching into market in Aug, the occupation of Lenovo’s LCD products is sharply increasing up to 60%.

3rd Low cost
Lenovo creates its own way in cutting costs. Before finish assembling products, Lenovo always assemble parts with stable price first and then using raw material with large fluctuation and sell the product as soon as possible.

4th simplify

Most Chinese end-users in China is not qualifies to handle problem when it occurs. In this case, Lenovo launch their easy using products which offering customer the easiest and simplest way while using computer.

According to Lv- the vice president of Lenovo claims, they held many lecture within the team and ask them to train up their subordinates. It’s their job to train people who are new. They also encourage them to write books and spread their knowledge within team.

Lenovo changed their strategy and this helped a lot guided by the new strategy-Lenovo start using internet as the core of their service, willingly offering the fastest and easiest way to serve customers, repairing hard disk as the basic mission while teaching customers how to use IT instruments. The following link activities are central to Lenovo’s strategy.

Figure 9 E-care and linked activities
4.2 The service development process

Idea Generation

Service ideas can be generated in many ways; they can arise within the organization and outside it and from formal or informal search procedures. Idea can also involve the organization in creating the means of delivering the new service, containing the rights of a service or through a franchise agreement. However, it has been found that successful organizations do tend to establish systems and procedures to stimulate idea on a long term basis. At the beginning of the process, E-care project team also strengthens the innovative idea from internal such as getting idea from the customers via account managers, and getting idea from external such as from competitors and competitive idea from field.

The employees have long been identified as an important source of new service idea. Lenovo has its own way to use customers’ manager as a crucial find customer’ needs and wants.” Customer managers have to spend more than half of out working time on customers” said Liu, one of the customer managers in Lenovo. Sometimes, once the new service gets launched, customers are traced from the second once they start using. They can get customers’ feedback immediately and finding out the defects. Tracing their customers from scratch and having face to face interview is another way to design new products or service meeting customers’ needs and wishes. Customer managers in Lenovo not only have to analysis data and report from market, more importantly, they have to immerse themselves as customers to dig the expectation and needs. Two categories are conducted in the idea process, visible needs and invisible needs. Relative to those visible needs, Lenovo built up their own CRM and systematic analysis in market, relative to the invisible needs they have to direct their access to customers, at the meantime; Lenovo built up their advanced CICS (customer information control system) including call center, customer service website and site engineers’ team

Bo Edvardsson (2000) also claimed the importance of getting the customers involved in developing service innovation, user-centered approach to service development relies heavily on understanding the end-customer, almost exclusion of understanding the service provider’s core capacities. The astounding growth and valuation afforded internet startups in beginning of this century is a good example of how to focusing on a customer needs first.

Apart from generating idea from internal via account managers, some idea is also
collected from competitors, competition from rivals in the same business as well as from "outside" from the so-called invaders is identified. Their existing services, their strategies, and the establishment of new services are studied. Their strengths and weaknesses are identified and evaluated. The main competitors in personal computer field are Dell to Lenovo. They have done so many researches on competing environment analysis since 2000; Lenovo faced a challenge in growing up as a giant competing with international company at that time. Improving service and snatched a chance on small and medium-sized companies is our focus, as the domestic manufacturing company, Lenovo has own advantage on meeting what Chinese customers’ wants and needs, Lenovo focus is making our products to satisfy majorities.

The third source in correcting idea is from institutional situation, it can include a study of legal requirements and conditions, ethical or moral aspects, and the political climate. The customer and competitive analysis and the institutional analysis are integrated by defining and evaluating the market conditions; threats and possibilities are evaluated. Internal resources are needed in order to take advantage of existing technological and financial opportunities. Lenovo has its own advantage by having the widest operating system and call in service basically covered every corner of China. They also estimated costs the future of E-care, there has been over 6% market share of Lenovo in Global every quarter, and over 20 thousand calls are served in Lenovo’s call center per day, the costs of each call only 2yuan per minute. China has the largest internet using and this number is still increasing6% every year. The internal analysis is presented as a description and evaluation of the company's strengths and weaknesses with the idea of the new service as a starting point.

Idea Generation Techniques

“These account managers are helpful collection information from most our customers, they have spent more than half of their working time talking with our customers”

In terms of directing search activities, it’s very important that it is not seen as an isolated activity in the development process. Rather, it should be seen as an integrated source in the continuous development process. Techniques must be created. Selected and maintained on an ongoing basis to keep generating idea. In this phase, when you try to generate solutions to your customer problems the normal procedure is to use an old solution, the purpose of using these idea generation techniques is to change normal pattern of thinking to lead your mind in new and unknown directions.

The service is dependent on the technology development and customer’s changing need.
For the case of E-care, personal computer becomes necessary recent years in China, 23.9\% of Chinese people is using internet (till 2009, 06-10), and this number has exceeded the average generalization 23.6\% in the world. More and more customers getting used to use internet solve problem nowadays—this becomes a trend among customers. In technology aspects, Lenovo has gained service price of CCID ten times and five times in a row of CIT prize, at the meantime, Lenovo is the 1\textsuperscript{st} company gained authoritative permit COPC-2000. That means customers network of Lenovo is identified as the top level in the world, E-care service is established on the previous outstanding service technology.

**Idea screening**

In the idea screening phase, the aim is to allocate resources to those ideas that have the most likelihood of helping the firm meet its objective. Like idea generation, there are several procedures for idea screening.

In Lenovo, they basically are screening the idea in the following four criteria: trends from the market. Presentable customers’ needs or trends. Current business strategy or guiding customers’ needs in future. Following contents will exploratory the idea screening phase in above criteria.

**Market Trends**

“As the Internet been used more and more nowadays, the internet is becoming increasingly popular, the continuous development of network services so that part of the user requirements can be solved through the network more and more users are accustomed to network problems. IT services are currently undergoing dramatic structural changes that Web services are becoming an increasingly important service implementation”

The project manager Lin provides an analysis of approaching the market trends and consequence as follows:

Figure 10 the division service volume in 2008
Table 2 Tends and consequences in future

<table>
<thead>
<tr>
<th>Forces/Trends</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing abundance of all products and services</td>
<td>Increased global and local competition</td>
</tr>
<tr>
<td>Increasing spread and use of internet or IT</td>
<td>Increased and abundant information about competing service leading to price transparency</td>
</tr>
<tr>
<td>Increasing number of communications and service delivery</td>
<td>Open access to markets. flexible choices for customers</td>
</tr>
<tr>
<td>Increasing the web service, customers want to use internet to solve problems</td>
<td>The service delivery must be personalized to satisfy different customers’ needs or wants</td>
</tr>
<tr>
<td>Increasing number of customers with basic knowledge in solving problems</td>
<td>Designing special service to meet customers’ needs in this target group</td>
</tr>
</tbody>
</table>

These forces and trends have been popularized as hyper-information and hyper-competitive contexts in some management literature. The project team recognized that with the proliferation of the media and IT systems bombard individuals with customers is increasingly easy. Gaining and holding customers’ attention, on the other hand, become more difficult. Next generation service platforms must be effective in gaining and holding customer attention if value-creating dialogue is to be sustained.

Therefore the new service should be not only established on gaining customers’ satisfaction but also in accomplishing those wishes through the physical and technical resources of Lenovo. Finally, they came up with building up an e-service by using internet as a platform to satisfy customers.

Customers’ needs and trends

E-care service was based on the customers’ needs and market needs, plus they have considered the resources advantage that Lenovo has. Based on the data they got from customer managers, more and more of their customer not only eager to use internet solve
all problems, customers needs also become more personalized instead of being universal. They were planning to build up a service system can meets those criteria under the business strategy. Lin as the project manager said: you can not totally trust customers. they are liars and not being rational always as the manager of E-care, they are not only considering customer idea but also should include company’s profits as trigger for the new service.” From the marketing perspective, it’s hard to distinct products only by quality or appearance; they are turning into competing with competitors on service.

Formation of cross-functional team phase

“Marketing is for market promotion and collaborates with other products
Planning is for designing and planning the whole project
HR is for training and service
System is for development and implementation
Executive is for office equipments and planning for location”

“Building up the cross-functional team never be an easy task, it’s hard to work with those specialists from technical department sometimes, but finally, we manage well in working together”

The following graph shows the configuration of the project team in E-care service.

Figure 11 Configuration of the cross-functional team
The employment of multifunctional teams contributes directly to the overall effectiveness of development new services, Gallouj and Weinstein (2000) reflects this brief in their statement that flexible cross-functional teams are successful in development activities because the new combination of knowledge and competencies they offer to service organizations. This also increases problem-solving ability when obstacles arise in the implementation stage. It’s very important that representatives from the functional team cooperate and share in formation during the development process. Firms that development new service without using multifunctional teams may suffer from functionally departmentalized structures that impede NSD.

While choosing the individuals for a project team a number of factors need to take into account. These include ordinary working tasks, background, and competence. Future working tasks in a project as well as the expected roles in a team. They often tend to forget that the constellation of a project is an important strategic issue, in order to achieve designed-in quality; people must agree on the service concept and share the same values as well. One important step in achieving this creation of a mental model that is common throughout the entire project team, it must be shared by everyone in the project team, which is a key role of culture.

In the case of Lenovo, they have formed project team includes specialists from the following departments, marketing department, technology specialists including net-service experts, advanced engineers, computer software specialists, specialists from human resources department and so on. As the service for E-care, the core competence is the technology aspects, they have been increasing the research funds sharply since 2000, and they put much more on this service this time and it was a big hit said Lv.

The key character is the project manager. He is assigned to oversee the project and has the primary responsibility and authority for the project. However, not only must the
manager oversee the project and making sure everything goes on as planned, he must also have the ability to maintain the customer centric service culture and have skills to lead, coach motivate and develop the team members. They have been thinking about using internet as the platform for our customers since 2003, till 2008 Lenovo has integrated IBM’s PC unit this plan has been launched.

E-care service was established in the deep understanding of changing for the environment and customer needs. Nowadays, simply offering good attitude to customers can not satisfy their needs,” customers are asking for a service which can provide them in easiest, fast and professional way. They are not only provide customer with good service but also train them how to use IT equipment properly” said by Lv. Lenovo will spread the “using internet as platform” as the core concept for their service.

**Service design and process/system design**

“Our aim for E-care service is investing a speedy and personalized service system for the target customers.”

Development of the service process is mainly about two aspects as well:

1. Offering prerequisites for the service and
2. Building in prerequisites for desired customer outcomes and customer process at the same time.

from the starting point of the service concept and detailed description of the service process, with respect to activities and part-processes, equipment, quality and cost intensifiers, critical points, the customer's line of visibility, etc. The cost of the activities is estimated and the price set. A basis for the regulating of customer expectations and for market communication is produced. Instruments for measuring and following up quality are worked out.

The important experience and activities in the service development process, can be related to the customer’s need of the services and the changes there of the employees roles and organization of the development work, and the development of the service process.

Customers always having some invisible service, by the year 2007 Lenovo has developed a team in analyzing customer needs for “ThinkPad”, besides, Lenovo has also built a team analyzing needs among different brands for Lenovo’s products. As a result the service development continues over a long period of time, the delimitation is the result for customer’s resources and the customer need. For the case of Lenovo, how to offer
good individualized service to customers and satisfying their needs becomes a big challenge. Lenovo owns a team of good IT engineers; they can help you with any problem over the helpdesk of E-care. On the other hand, Lenovo established its own intelligent robot—robot I, robot I can provide individualized service 24/7. Of course, the Robot I can solve 80% questions from customers, the rest of 20% will leave to artificial service. Robot I not only provide customer with connivance but also cut many cost for Lenovo.

The service strategy plan designing phase must also deal with the specific objectives relating to the overall value of service to the firm and the customer base. The strategy must define and describe the following

1. **Service portfolio to be offered**, in the case of e-care service. Lenovo launches this service aiming at customer using the online maintenance as portfolio.

2. **Extension or special coverage services to be offered**, related to the e-care service covers 24 hours and 7-days-week coverage in helping customer problems.

3. **Service delivery objectives relating to service response and service repair time, organized by market**. Lenovo delivers the e-care service can be solved in a fast and efficient way by simply clicking “helpdesk”. Lenovo also promises the percentage in solving problems such as delivering accessories can be accomplished before 10 am following day achieved by 95%.

4. **Key service management parameters which will be utilized to manage and control the service business**. The management organization of Lenovo relating to e-care service controls all IT experts ensures the efficiency in service operation and meet over all objectives.

According to views of Edvarsson (1997), the service system represents the resources required for the service. The resources are made available to the process to realize the concept. The system is built up from a number of subsystems that either interact with each other or function on their own.

**Designing of service system**
Service culture

“Service excellence begins and ends with the culture. We distinguish two levels of culture: a general organizational culture and a more specific customer service culture.” The general organizational culture in Lenovo is: customers delights and exceed innovation. Same as Leonard Berry identifies commonly held value that sustains excellence service organization: innovation, integrity and respect.

The organization’s core values provide a basis for developing a more specific customer service culture. Your culture is and philosophy is the basis of your service management system, the more specific customer service culture underscores the need to invest in employees who can deliver excellent customer service. Based on the norm of customer delight and innovation exceed expectation, Lenovo gained the golden price of customers’ satisfaction in 2008 and price for “best innovation of IT filed in China at the same year.

Management and Staff

“CRP 3P company famous theory that pay for position (for the post paid), pay for
person (for the skills paid), pay for performance (the performance fee), referred to as P1, P2, P3, around three "P" Lenovo has taken in accordance with their own characteristics based P1, P2,"

Employees are often described as a service company’s key resource. Studies show that the customer’s perception of the service quality depends a great deal on how the front-line employee treats them. Front line employees should be seen as a part of the service since many customers view the employees as synonymous with the service. The most important desirable qualities for the frontline employees are knowledge and experience, motivation and enjoyment. To obtain these qualities it becomes important to design attractive jobs and simulating the environment, to offer training and education and to organize the recruitment, training, development and deployment of staff. The analysis work content the job design, tasks and reward system is also important but often neglected in the context of service development.

Reward system

Lenovo creates own reward system can be summarized as 3P,3P stands for "pay for position" Pay for performance” and “Pay for person”. Lenovo also has been improving their reward system in approving series of plans since 1991, by the year 1991, a borrowing plan for houses has been approved, by 1997, vacation plan had been approved, 1999, stock holding by staff plan has been launch, 2003, medical treatment insurance plan, in 2005 after mongering with the PC unit of IBM, Lenovo has made intensive changes on salary, endowment insurance and other welfare, including expand the annuity, insurance, and considering international staffs in rewarding them in a reliable and encouraging way.

Lenovo is the first in the state Department of Labor and Social Security Pension Scheme for the record business. Lenovo employees working more than one year are able to participate in formal pension plans, individual and corporate investment ratio of 1:1, Lenovo commissioned Ping an Insurance, China Merchants Bank and Harvest Fund, insurance, account management, investment and other specific services. In accordance with the investment return of 5% and earnings growth estimates, to join the pension scheme for 30 years in the work of the staff association, if the pre-retirement wage of 6,000 Yuan, while total access to social security after retirement and pension income of 4,000 Yuan annuity, If not participate, you can only get more than 1300 yuan of the social insurance fund. Pension scheme for employees was: "Lenovo is your home."

Annuity plan effect on attracting foreign talent is obvious, since the pension plan since 2004, preparations, Lenovo Group, the proportion of employee turnover has been greatly reduced, and about 70% of employees have joined the pension plan. Lenovo enterprise annuity scheme is a new human resource policy initiative; annuities have attracted more talented people to join associations
Front-line employees

In Lenovo, the front-line staff have to be trained and certificated before they start work,” all the front-line employees. Especially the engineers, has to pass through LCSE (Legend Certification System Engineer). Four categories are included in this system: intern engineer, assistive engineer, engineer and advanced engineer.” They begin to realize the importance of the front line staffs, they are the one who have been contacted mostly, listening to their opinions is important” Said Lu. They always ask representative of the front line staff to involved meeting and would consider his or her decision but the final decision-making is still the manager or people who charge for the project.”

“It’s not easy to manage those specialists as a team.” Mr. Wan-the manger of the DQI of Lenovo said.” You have to make all of them work as a team, it’s hard, especially for those technology specialists, they are always quiet and not good at dealing with relationship with other co-workers.” The team members have to collaborate with each other instead of being as an island. Some of the staff felt they considered everyone beneath his notice once he controls the core technology. I guess people who are willingly work as a team has to dump his strong character and start collaborating on other members in the team.” In addition, Wan added .Lenovo has its own method to avoid this happened, we held many lecture within the team and ask them to train up their subordinates. It’s their job to train people who are new. We also encourage them to write books and spread their knowledge within team.

The physical and technical resources

“Lenovo is currently China’s service network coverage is very broad, very strong response, there are 1514 professional authorized service stations, home service area to the north, Mohe, south to Sanya, even Tanggula the depot, the service network 100 % coverage of more than five cities. Our Contact Center has more than 800 telephone lines, 600 seats, to answer the phone every day up to 3 million; nearly 7,000 engineers nationwide to serve customers, two spare parts centers, 18 sub-regional spare parts spare parts library and more than 300 first-line database, ensure that spare parts for the day before 10 o’clock the next day to the proportion can reach 95%.”

Physical and technical resources include premises, computers and other technical systems, as well as partners’ and customers’ equipment and premises.

The physical and IT resources had been talked early in the service development design process. Like the internet had been sued as a tool for marketing and other resources had been used once the project starts. From the year 1999, Lenovo has changed it role as a company with technology of internet, product provider and information service. E-care is a service that based on the technology resources of internet.
Cyber marketing became a trend starting by 1999, Lenovo is one of them has been increasing the budget on advertisements. By November 2005, according to the database of CCW research Lenovo has put 2463 million RMB and was the one who has been put most budget in ads and media comparing to its competitor such like Nokia and Samsung in cyber marketing. Also Lenovo use e-mail as bridge for after-sale service and make connection between customers and company. Lenovo can get information from customers in this way.

NSD competence reflects a system of development practices, processes, and routines that interrelate (i.e. ovary) to influence a firm’s ability to develop new services effectively. More formally, drawing on Menor and Roth (2007), NSD competence is operationalized by four dimensions: NSD process focus (PF), market acuity (MA), NSD strategy (ST), and IT experience (IT). Each has been individually identified in the extant NSD research literature as being an important organizational resource or routine for NSD success (de Jong et al. 2003). The following will analysis E-care from IT resources.

**Technical support resources**

“It's for the target customers. The rapid development of Internet technology to enable small and medium business applications has changed from 'Phone + Fax' into a 'computer + cable'. Demand for network applications is growing, their end products to lower computing power, while the back-end computing power to do more to products, online applications will become mainstream. The family of Lenovo products introduced in SME entry storage, one machine and other products, and integration of leading SAAS applications, is the small and medium enterprises to respond quickly to the needs of users in this regard.”

SAAS (Software as a Service) is a model of software deployment over the internet. With SAAS, a provider licenses an application to customers for use as a service on demand, either through a time subscription or a “pay-as-you-go” model. Also known as “software on demand,” the SAAS model allows vendors to develop, host and operate software for customer use. Rather than purchase the hardware and software to run an application, customers need only a computer or a server to download the application and internet access to run the software. The software can be licensed for a single user or for a group of users.

SAAS software vendors may host the application on their own web servers or upload the application to the consumer device, disabling it after use or after the on-demand contract expires. While SAAS was widely deployed initially for sales force automation and Customer Relationship Management (CRM), its use has become commonplace by businesses for tasks.
Project manager Lin told me their original thought on why to develop E-care service. We have calculated the PC selling amount quarterly, around 5.32 million, and Lenovo’s market share occupied 6% out of all. Second reason for this is about 20 thousand call received in Lenovo’s call center everyday in personal consulting. And the cost to pick up every call is only 20 cents per min. The third reason is the market force, said Lin, an increasing number of small and medium-sized companies is asking for help since they don’t have IT staff. Therefore, we need SAAS system immediately to meet customer expectation and satisfied their needs, meanwhile, SAAS is an effective system to cut cost for our company.

**Decision style-based web design**

“Our Aim for E-care service is investing simple, easy software for the target customers. The easier to learn the better feedbacks we get”

The driver decision-style model offers detailed guidance regarding the types of information different styles seek, stylistic preferences for information form and even suggestions as to shapes and colors preferred by different styles, using this information, the project produced a document articulating, for example the color the shapes. This could be used in marketing communications. This information was lifted and organized into interactive design principles. These principles articulate which style is likely to prefer problem solving and action navigational prefer detailed and structured product information. Quality reporting and comparison, a fundamental design choice to be faced anyone considering interactive design to either:

1. Design the front end such that interactive preferences can be assessed (via questions and other queries) leading to a style specific presentation of materials based on the preference assessment or
2. Design the front end to accommodate the preferences of the four primary styles (decisive, flexible, hierarchic, and integrative) and creating paths open to all, but more self-selected by customers on the cues provided.

The latter approach was chosen which set in place an architectural specification, from which a prototype front-end was created where navigational paths and web page presentations stemming from them were designed according to decision-style principles. In essence, individuals would self-select their navigational experienced in the prototype.
The homepage of e-care

Figure 12 the web-page of E-care

E-care home Web pages simple, no extra stuff, the top is eye-catching "E-care" logo. In the upper left corner and the left is the human search, where you can get straight into four main functions of E-care, Web-chat, RTO (Remote take over), message box and IP voice chat. Home page navigation is all part of the above. Press the lower left corner is a Lenovo. Middle and right part of the part of its self-help service. In the bottom of home page is association with the some software companies and other advertising.

E-care’s home page is simple, but also to the role of the website home page. And the
piece of information map is also very representative. E-care’s functions are not only representing feature, also on behalf of the association's network marketing program, as well as Lenovo's business ideas and culture.

Navigation bar is divided into about E-care service’s functions including four parts. This will be Lenovo's web site in accordance with the functions divided into four sections; four sections have a different function. Complete classification of simple but also makes visitors to the site structure is very clear, very easy to find what you’re looking for information in a module, which will soon be found, making the search efficient.

Figure 13 presents views of prototype front end created following the architectural guideline as applied to E-care service. The top view shows four dominant paths: Web-chat, RTO, voice chat and message box. This navigational experience offers more of an action orientation as opposed to an informational experience.

We have changed the end- user delivery on the web page of E-care too, Lin added. Most of their target customer have the limited knowledge on computer, hence, they design the end-user delivery system as simple as possible let them know how to use it immediately.

Four functions are included at the customer application delivery system: web-chat with engineers, RTO (remote take over), IP voice chat, and message box. The core concept in developing the delivery is “SIMPLE” to the target group. The functions usage of each and end-user system are shown below:

Table 3 Function of client application and its characteristics

<table>
<thead>
<tr>
<th>Function</th>
<th>Characteristics of each function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web-chat</td>
<td>Customer download plug-in by clicking “Web chat”</td>
</tr>
<tr>
<td>RTO(Remote take over)</td>
<td>Engineers remote control the pc solving personalized problem</td>
</tr>
<tr>
<td>IP voice chat</td>
<td>Point-to-point link. Decreasing call setup latency</td>
</tr>
<tr>
<td>Message box</td>
<td>Customer can leave message or asking help</td>
</tr>
</tbody>
</table>

Figure 13 Client application of E-care
In the bottom view on the right, the text presentation is more hierarchical structure, which emerges “your account,” “charging information, historical service record and download plug-in.” In the end of the service, a navigational experience also ask customer to grades their satisfaction on this service or add more suggestions. Today’s customer almost insists upon a tailored service and that fits his or her particular needs.” “We had tested over and over again before implementing into the market”. Lin said, “To make sure it’s easy to use and catch.” This fact, along with the increased customer power and virtual relationships, will continue to put pressure on the service organization and its way of serving. It needs to design new services processes and a service system that contains and supports a number of different and changing customer processes.
**Service testing and pilot run**

Project manager Lin told me before launching the service, they have test it many times within the team first, on the other hand, some changes had been made till the refinement level lower than certain defects, then they are authorized to move on to next step. Alam (2003) claimed the activities in service testing and pilot run should be implement design change and refinements, test to prove the service under real life condition determine users’ acceptance of the new service.

In this stage engineers from system departments will made refinements according to the simulation and customer’s characteristics, they will write refine report and turning into executive department asking for refinements.

After the refinements, engineers will provide simple in initial process and require parameters and reliability of the pilot and ask for authentication. Testing report will be made to ensure meet customers’ needs.

**Testing market**

Alam (2003) claimed that the activities by producer in test marketing are about developing a marketing plan and test with users. Examine the marketing mix in different markets and rollout in selected market. The following contents will introduce how Lenovo creates its own way testing with their customers and their marketing mix plan in selected market.

Lenovo also creates its own way in this stage comparing with the old ones. The old way is a linear mode tests the new service/products and the acceptance was not high but it’s too late when all service or products went into industrialized. The following two figures showed differences in traditional and new one.

All development within Lenovo was supposed to follow the instructions is shown schematically of each output in the figure blow:

Figure 14 Old way in developing product/service in Lenovo
The traditional service development process has an important issue was to deliver high quality products. This was accomplished through documentation as well as systematic testing before a new realize. But it is not a good process for nursing innovations.

A new way of development was initiated as a prototype of E-care project. Some focus group of customers was engaged, before the realizing phase, they are co-producer in that they continuously test the prototype and giving feedbacks. The traditional model has been updated as following figure:

Figure 15 Innovative way in developing new service in Lenovo

What is new in the latter development process is that the prototype which corresponds to the first two and half step in the traditional model (including the screened idea, evaluate and partly realize), as opposed to strict sequence, the process is series of iterations of loops.

The characteristic of new model is the involvement of customers in the development process and shoring of the development period. Before realizing phase, the prototype service needs to be going through the testing phase and feedback from customers back and forth till the final prototype had been made out.
The E-care service start to developed from April of 2008. The idea to involve small amount of customers, around 700 of them, try to develop the new concept. The selected customer are basically meet criteria from focus group, all of them were pleased to experience the new service. Meantime, all of the account managers never stop analyzing data from the tested market. Data collected from pilots was fed back to the development team, which contributed to a continuous development of the E-care service during the testing and pre-testing period.

With an increasing coverage internet in China and the popularity of internet PC, the requirement in fixing problems over internet is getting more and more among customers. In June of 2008 only 10% of customers were using internet service (E-service) in Aug of the year 2009 this number increasing sharply up to 40%--the vice president Lv claimed. Lenovo benefits a lot from Launching E-service, this IT service platform not only satisfying our customers but also cut the cost for company.

Building and maintaining a service advantage requires market segmentation. Deciding whom to service and whom not to service is essential, in Lenovo’s e-service concept, explicitly aiming at people who are getting used to fix their PC problems over internet, and with the trends of the increasing number of internet users in China, Lenovo grab this chance.

Identifying the Target group

The target group had been identified, and the characteristic of the potential buyers were that they were:

Table 4 Target customers

<table>
<thead>
<tr>
<th>Type of consuming customer</th>
<th>Characteristics of the target group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory customers</td>
<td>Using computer within three moths and not familiar with software needing a face to face teaching lecture.</td>
</tr>
<tr>
<td>Junior introductory customers</td>
<td>For those customers who can manage the basic usage of computer but still need guidance on advanced level</td>
</tr>
<tr>
<td>Tool</td>
<td>Use computer as a tool and have limited knowledge on hardware, can not deal with the problem once occurs on software.</td>
</tr>
</tbody>
</table>
Customers from Medium and small-sized company

<table>
<thead>
<tr>
<th>Type of customer in the target group</th>
<th>Characteristics of the customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies without IT department or specialists</td>
<td>Small companies (normally under 20 people) need maintenance of the computer program.</td>
</tr>
<tr>
<td>Needs integrated solving solution</td>
<td>Companied who have been purchased a large amount of Lenovo’s products and hope Lenovo can offer solution to problems.</td>
</tr>
</tbody>
</table>

The target group is about people with introductory knowledge about computer therefore, we can tell from the promotional rollout, those promotional activities are during Children’s day and users’ for tian’yi Notebook (Lin mentioned the tian’yi Notebook is designed for people with junior introductory knowledge of computers). After the first sub-stage in test marketing, E-care limited it's rollout in selected market such as students then a series of promotional plans are spreading out in those target customers, the aim of this stage is receiving a widespread acceptance from customers.

The following graph shows the involved activities from test marketing till commercialization of the case.

Figure 16 Marketing Mix of E-care
1. Pricing system
2. Charge card filling up programme

Online shop Digit-store
Charge Bar
Telesales
Bundle with Lenovo

1. Promotion on labor’s Day
2. Promotion on children’s day
3. Customers for tian’yi notebook
4. Caring old customers

April-June

1. E-Doctor package
2. E-trainer programme

1. Service Package retail program
2. Product charging program

Lenovo service channel
Lenovo resell channel
Bundle with Lenovo

Make programmed product and price

Bundle with partner

Lenovo.com
Rollout of E-care
Promotion during summer holiday
Lenovo charge bar spreading

Put ads over website
Winter vacation promotion

July-September

October- December
Commercialization

Cyber marketing

“Because cyber marketing is very important aspect is to majorities, most people have the opportunity to participate. Network is a very good platform can not only access to information, its not the same as with other parts of the media is also an interactive network, which would make ordinary people's participation greatly enhanced”

Those activities performed by producer in Alam’s (2003) of commercialization are, plan promotion campaign, appoint distributors and brokers, and roll out the market. E-care has chosen cyber marketing as the main platform for promotional campaign in launching skit, other promotional activities were activated during the vocation toward students for instance in target group.

Cyber marketing is a very great temptation, almost every company, every brand is noted that the network marketing, and almost all are doing online marketing. The online advertising is more common promotions. As the first one to use the Internet media company, Lenovo is no exception, Lenovo began back in 1999 to run online advertising options. As the network increases and the effect of advertising the operability of online advertising association gradually incorporated as an important part of branding, and gradually increased this part of the input.

According to CCW Research (CCW Research) results, 2005 in November 2005 the total cost of Internet advertising 15,684 million, of which up to Lenovo's advertising costs, for 2,463 million, followed by IBM and TCL.

And conduct research under the Fifth Ereli Internet users in the data, users over the past year the most impressive online advertising in the most intimate association is a network of advertisers, in the first reference, second and third reference to network advertisers in rates ahead of the vote. In particular, the first mention in association with the percentage of 9.14%, both much higher than the 5.53% second of Nokia, but also much higher than the 2004 survey data show that Internet users conduct the first three weeks of 5.5%.

Marketing is an important issue in the implementation phrase. Lenovo not only cerates their own innovation through technology but also build up a new market innovation through internet.

Skit, "Lenovo e family" uses flash animation, each episode introduces an E-care services. Sketch of a grandfather, father, mother and grandson for the role of family life as the
background around the application of computer and network service issues encountered, easily tell E-care function, expressing "full service network zero distance" of the E-care concept. "Lenovo e family" program designed six episodes one after another, now released four sets, respectively, Lenovo introduced "remote support" (also known as "family software master"); "online repair"; "smart repair" and "reserve repair" 4 key services E-care mode feature, which "little Superman" E-care mascot is very interesting. It is reported that Lenovo E-care Network Services in March 28, 2008 the formal launch, developed rapidly, daily site visits to 100 million. One remote support, online repair, auto repair, repair appointments, programs push, intelligent robots, six major features as the user very much welcome the way the new services, this has become a "family association e" creative blueprint.

Lenovo network service operator, according to the person in charge, with the E-care "Lenovo e family" at 3,4 set released the same time, Lenovo Services also launched a new network platform for mutual aid Q & A "Legend Go ahead." A perfect right to use another network service platform. With the rapid development of Internet and technological advances in computer users growing demand for network applications, more and more users use the Internet service tool to find a solution to the problem. IT is not the pursuit of a technology product, but a representative of the "new doctrine to music," the digital life experience. People no longer content with the emergence of computer failures of "reconciliation" service, but more access to computers how to "good use" of demand on value. Lenovo service adhering to the "customer beyond expectations," the value of philosophy, the network hub, convenient professional as fingerprints, integrated phone, on-site, network, platform resources, to create a "triple play" a strong IT service delivery system for customers create a personalized, super-convenient, exciting new service experience. We have reason to look forward to Lenovo, "Lenovo e Family" cartoon just kick off the corner of the marketing Lenovo service, I believe the general computer services to consumers will feel more surprises
5 Analysis and Conclusion

“This chapter is based on transcripts and follows the process of E-care, in conclusion, the whole process of E-care service, eight stages are included in the process.”

Ideas for new service development can originate from customer suggestions and analysis and data from marketing departments; after this, new ideas are screened and winning concepts are developed and tested for their feasibility. Concepts that are passed the development hurdle are then considered in the analysis stage to determine their potential as part of a profitable business venture. After the project authorization, successful concepts move to the design phase. Considerable time and money are spent in design to create a new service and process that can be field tested with appropriate personnel and marketing campaigns in a selected customer. Finally, the new service is given a full launch that could be available.

Shortly after the completion of data collection, all the interviews were transcribed and written down in English, while reviewing those transcriptions some obvious themes can be roughly described as follows, idea generation, project team formation, designing the service system and process, service testing and pilot run, marketing testing and commercialization. Some quotations are mentioned from transcriptions.

5.1 Idea generation:

“Marketing analysis and collected information from customers, analysis idea and information from the previous step and make decision to assess customer intents.”

“As the Internet has been used more and more nowadays, the Internet is becoming increasingly popular, the continuous development of network services so that part of the user requirements can be solved through the network more and more users are accustomed to network problems. IT services are currently undergoing dramatic structural changes that Web services are becoming an increasingly important service implementation. According to Lenovo’s IT service statistics, in June 2008, the network services proportion of the total volume of services is about 10%, now nearly 40%.”

“One is the assessments of Lenovo and second one is information from our customer, third one is the trend of market. I showed those reasons in the
presentation I sent you in seminar. One-quarter global PC shipments 53.2 million units Lenovo's market share of 6% = 3000000 units. 20000 calls are picked up by call centers and each of the call costs 2 Yuan without labor costs.”

From this quotation it can be seen as, whole program starting from collecting customers’ idea and other information from the competitive market, in the literature the idea generation which the company has search for idea and from internal marketing department and external from customers, Alam (2003) has described the main activities included in the idea generation stage are: Internal and external search for the ideas. Probe customers’ needs, problems, and their solution; criticize existing needs, wants, and preferences and their choice criteria, service; identify likes, and dislikes; seek competitive product ratings. Using internet as a platform can be seen as making decision to assess customer intents are also related to probe customers’ needs and preference, solutions from Alam’s model.

5.2 Idea screening

After the idea generation stage the project manager has mentioned, one statement concerns:

“.in the end of this stage make actual developing plan for the new service .then we make report and check availability of this plan.”

Idea screening aim to allocate resources to those ideas that have the most like hood of helping the firm meet its objective. The screening process can be multi-stage program in E-care, and it’s had to find criteria of this, some argue that the criteria should reflect the characteristics of the organization. Others maintain that a fairly general set of screening criteria appears to be relevant for most organization (Kelly and Storey 2000). According to the documents from Lin after the interview, every new service/product has to pass the regulatory issues before designing. Alam’s model of idea screening the main activities of this stage includes analysis feasibility and regulatory issues.

5.3 Business analysis:

“To assess the maturity of the technology, prices and costs, comparison with the content industry”
“We have put more than ten millions for e-care service, and hopefully it will help Lenovo to gain more with long run”

“After the commitment from top manager of the company, the project team formation can be following step”

After the Idea screening stage and business analysis comes out in the case of E-care, business analysis is about economic analysis, as it has mentioned from above transcribes, this include activities within analysis the costs and profitability of this service. In the end of this phase the commitment from top manager of company should be included. Lenovo also focus on gaining more from long fun. Forces to continue the development of the service could be profitability, potential technical progress.

Although the business analysis stage seems not obvious in the initial of the project of E-care, and some of the interviewees did not even described this as a single stage somehow, some of transcribes seems to combine this stage with idea screening, and choose financial as a criteria in screening, in reviewing the literature, there is no criteria and procedure of this phase therefore, following the transcribes of mentioning the profitability in initial phase. I conducted business analysis should be the end stage of the initial phase.

5.4 Cross-functional team formation

Following with the planning phase in the beginning, almost every interviewee mentioned the project team formation, the project team mainly includes members from many department based on the analysis of the E-care service and company or top manager will name project manager of the team, after the team formation, manager will name each of their responsibility as described in the transcribes:

“Company will arrange the project team and name the project/product manager and product consultant, they will arrange a meeting to discuss and analysis the blueprint of the service, finding out people of the new project, afterwards picks up various specialists from different departments.

“The project team wills analysis and having meeting together to decide each of responsibility, like marketing department in this project; our responsibility is for promotion and finding cooperation.”

In reviewing the literature, the new service development process is multifunctional. It requires inputs from and the active participation of people from many different functions
in an organization, including front-line employees, marketing and management of course, the project team of E-care applies for this configuration.

5.5 Designing service system and process

The service design is the next phase after initial planning, the actual design work begins as the project team builds up the needed resources and structure. An important step involves getting the needed resources that support delivery of the service, meantime, the service process is developed.

“The visible part the service system can be described as: people, financial aspect (budget), other physical resources. The invisible can be said as from managerial perspective. Control from company and management within the project team”

"Regarding to system in all stages, can make use of resources in four areas:

1. Team of human (staff technical capacity)
2. Project Budget
3. Property (facilities network sites)
4. Customer Support
5. Management and control within and outside project team”

Regarding to the transcripts, the system can be summarized as service system with following resources. Physical and technical resources. Management and staff (within team), organization and control (outside team), customers.

In a series of initial meeting the project team of E-care began by describing market trends of increasing number of customers keen on using internet to solve their problems. They also analysis consequence of this in future and assume the number of this will be sharply increase, an internet platform combine with service station and service call center are formed. Five different department are included in E-care project and each of them has own responsibility. The service system of E-care can be describes as: technical and physical resources includes premises and SAAS system, managerial perspective carried out by HR department in the case and control by organization in terms of responsibility and authority in a suitable manner. Parallel with planning and finical system control. Customer interaction is also another elements involved in this designing phase, in the process of designing, it of needs customers’ knowledge and their information to contribute to the system. Lin also claimed the importance of customers’ involvement in this designing, he showed the concern in following transcribes
5.6 Service process design

“One point of learning from end-user system is make it as simplify as possible”

According to Lin’s describes in developing process E-care, he mentioned one word as: simplify. The service process was defined as a chain or chains of parallel activities are necessary if the service is to be put into practice Edvarsson et al (2000). A series of activities have been showed in how to get access to E-care till the service get ended in . Static activates are conducted in the process, such as the net work support process provided in the seminar Beijing 2009. Of course its also based on the ability and characteristics of target customer of E-care. Since the service company should understand customers’ expectations.

5.7 Testing phase

The testing phase mainly includes two following sub-stages according to the transcribes, pilot-run and test marketing, the main difference for those two stages are the pilot run testing is within project group with engineers and refinements of the new service will be made after this. Test marketing is jointly with customers before the new service introduced into market. Some related transcribes as follows:

“then testing the prototype(system) of the service, contact customers and ask them to do the re-testing before final launching to market”.

“Then is the testing phase and the related department will revise bit after simulated condition.”

“Finally is the market testing, customers are asked to join this phase and we get feedback from them afterwards, then modification of the service will be made.”

“Testing is about implementing refinements. It’s about testing the service under a simulated condition to see the acceptance of the new service.”

“I have learn that you have to find different customers in target group to test and
retest in the designing the service”

Once the service designing is finished, a prototype comes out and the engineers will first test the prototype within the team understand a simulated condition. Alam (2003) also claimed the main activities performed by producer. “Implements refinements after and determines customers acceptance”. It can also draw from the above quotation that test and retest is important aspect to determine customers’ expectation.

5.8 Commercialization

“During the national holiday, in this period. People who bought Lenovo Tin Yat are free to get access to the value of 588 yuan a "worry-free card remote services Lenovo notebook”

“And conduct research under the Fifth Ereli users to data in the past year, the most impressive users online advertising in the most intimate association is a network of advertisers, in the first reference, second and third reference to network advertisers in the percentage of votes is always leading. Particularly in association with the first reference to a percentage of 9.14%, both much higher than the 5.53% second of Nokia, but also much higher than the 2004 survey data show that Internet users conduct the first three weeks of 5.5%

In the final stage of new service development is commercialization, promotions, appoint distributions and many activities related to marketing are linked with this phase. Those activities similar related to Alam (2003) model of commercialization as: appoint distribution, plan promotion campaign, and modify according to the condition of market. E-care has approved the promotions during holidays and also a flash basis in introducing functionalities of E-care is also spread widely on internet with high acceptance of customers.

5.9 Measurement of success

“the registration number of registers for this service is increasing, from 6.7million to 27million”

E-care service became a big hit and won many prizes of the IT field in 2008, the measurement of it’s succeed can be summarized in the following dimensions oerformance:1.window of opportunity(the degree of opening up new service to the firm
E-care service became a big hit and won many prizes of the IT field in 2008, the measurement of it's succeed can be summarized in the following dimensions: 1. window of opportunity (the degree of opening up new service to the firm) 2. domestic market impact 3. costs. Empirical researchers have been reluctant to control for contextual factors. Instead, they have relied on measuring performance on a number of prescribed dimensions; the above detentions are part of criteria of the empirical findings of measurement of success.

In conclusion, E-care service became a big success and won innovation praise of 2008 in IT field China. Lv mentioned to me while I was doing the interview, the competition of IT field is more competitive than before, IT companies eager to gain more market share and E-care helped Lenovo occupied the top share of Chinese market but it’s only 5%. Lenovo are turning into a service company rather than manufacturing, the most valuable attribute of E-care is, it opens a innovative way to satisfy our customers, since customers nowadays is asked for personalized service rather than being generalized, meantime, they also require a speedy and convenient way of serving. E-care helped many of them.

E-care also helped Lenovo to become outstanding in “service war”, the innovative way distinguish Lenovo from other competitors. Also, we opened up an innovative way in serving; company will invest more into the E service in the future to help Lenovo remain the top.

E-care also cut out costs largely for CRM and the costs for advertisements. 80% of customers problem can be solved by intelligent robot, and only 20% of it should be manual telephone, intelligent robot can talk to thousands of customers at the same time and the responding time is less than 0.1 second. Besides, this the data base of intelligent
robot can also help customers finding out potential problem and send the warnings and solutions to those customers.

Conclusion:

From these empirical results, it appears that the E-care case for Lenovo mainly broken into eight stages, Idea generation stage, idea screening stage, business analysis stage, formation of cross-functional team stage, design of the service process/system stage, Service testing and pilot run test marketing stage and industrialized stage. The major performed activities can be shown in the table below.

Table 5 Development stages involved in E-care

<table>
<thead>
<tr>
<th>Development stage</th>
<th>Activity performed by Lenovo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idea Generation</td>
<td>Internal and external search for the ideas, preference, needs, wants of the customers, seeking for competitive product rating</td>
</tr>
<tr>
<td>Idea Screening</td>
<td>Feasibility analysis, gather user’s lens and solution, assess customers’ purchase intent.</td>
</tr>
<tr>
<td>Business analysis</td>
<td>Analysis the net value and physical resources, market assessment and detailed competitive and market analysis</td>
</tr>
<tr>
<td>Formation of the cross-functional team</td>
<td>Adopt a team approach and select leader of the team, ask each member to adopt a role he or she would prefer to play in the development process</td>
</tr>
<tr>
<td>Service design, process and delivery system design</td>
<td>Combine the service attributes identified earlier with the delivery process jointly with users</td>
</tr>
<tr>
<td>Service testing and pilot run</td>
<td>Test prototype within the project team and some changes will be made after this. prepare them for an counters, ensure the service quality</td>
</tr>
<tr>
<td>Testing marketing</td>
<td>Test with users, examine the salability of the new service</td>
</tr>
<tr>
<td>Commercialization</td>
<td>Roll out in the market, plan promotional campaign.</td>
</tr>
</tbody>
</table>
6. Implications and discussion

As the last chapter of the thesis, this chapter discusses the difference between E-care and Alams’ model and coming up with some implication for the new service development of Chinese companies in the future.

Comparing with Alam’s (2003) ten stage model, two steps are missing in the E-care case, are strategic planning and training phase. From the empirical results all the interviewees start describing the development stage from Idea generation and none of them mentioned the training phase before commercialization, I think the reason might be obvious that E-care service is based on using internet as platform and combine with some old service such as call center and service station, the back line officers are engineers in company and they rarely need a special training to solve customers’ problems in introductory level. Meantime, such as level users’ expertise in strategic planning of Alam is conducted in the idea generation in analysis customers.

Since the E service (such as use SAAS as platform) starting to raising attention from 2003, so the new service development process of E service is still initial stage so this case from Lenovo might tips on finding out process for new service development in the future.

E service becoming raising people’s attention those years, and as the innovative mode for the new service, the future research might put more attention on the development process helping companies from empirical studies.

A number of success factors for world-class service development and innovation that are summarized below match the following characteristics:

- Develop a deep and thorough understanding of the customer
- Create a customer-centric service culture and strategy within the company
- Apply a multi-method approach
- Involve the customer in the development process
- Appoint multi-team
- Managing internal and external communications
- Appoint a project leader with the skills to lead coach and develop team members
- Take on a holistic approach
- Focus on a whole integrated customer solution
- Monitor and understand market and future trends.
Developing a service that meets user needs is important but educating users and building a long-term relationship with them are also important objectives of user involvement; of course educating users and maintaining a close relationship with them are critical for developing successful new services.

More and more service company over the years proactively involves demanding and knowledgeable customers in project teams and new service development processes. The customers have a veto right which means that the project must get their acceptance to continue from one phase to the next. Therefore, create a customer-centric service is necessary.

6.1 Develop a deep and thorough understanding of the customer

Understanding the customer is fundamental to one’s commercial success. To survive you need to understand the problems and needs of the customer who use your products and services and use that information to create a competitive advantage. It’s not enough to just use some account managers and tracing customer and assume that you understand customer’s needs.

Understanding requires a much deeper knowledge of:

1. customers’ needs, priorities, requirement, expectations and preferences.
2. customers’ service concept, and when, how, where the service is used.
3. customers’ knowledge and possibility to use the service
4. customers’ value and cognitive structures
5. customers’ behavior while using the service

6.2 Apply a Multi-method approach

In the case of E-care maybe its enough to simply ask or trace customers what they want and then design and offer what they require. In many cases, customers have a hard time verbalizing what they want in a way that gives sufficient information to direct the service development processes. In order to collect all different data needed to really get to know customers, a multi-method approach is needed. A number of different methods are needed to capture the different, relevant and important aspects of the customers’ needs.
and usability process in great detail.

6.3 Simulation is not always the answer

Many times are mentioned during the conversation with those interviewees in the transcripts, they are kind of proud to show the advantage in using some system from the US or western. Although it’s very important to learn the advantage method or system from other developed countries, but it’s also important to create own way in inventing an innovative way based on the present situation of China. Simply Copying is not always the answer. Imitation is not only exist in this case or other companies, it become a trend nowadays but rarely spending time creating method building up deep understanding of Chinese market and situation.
References and Appendix:

Anders Gustafsson, Michael D. Johnson 2003:” Competing in a service Economy” P35-135


Edvardsson B, Anders Gustaffson, Michael D.Johjson, Bodil Sanden 2000” New service development and innovation in the new economy” 15-175
Edvardsson and Jan Olsson 1996 “key concept of new service development” service industry journal Volume 16 No2 April 1996 140-164

Edvardsson 1997 “quality in new service development-key concepts and frame of reference” production of economics 52 1997 31-45

Chris Storey and David Kelly 2001 “Measuring the performance of new service development activities” Service industries Journal Volume 21 No2 71-90


Larry J. Menor and Aleda V. Roth 2008” New Service Development Competence


APPENDIX
1. Some structured Questions have been asked during the interview

1.1 How long have you been working in your present company?

1.2 What share of your turnover comes from the following markets?

<table>
<thead>
<tr>
<th>Market Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2C (sales to consumers)</td>
<td>__________%</td>
</tr>
<tr>
<td>B2B (sales to companies)</td>
<td>__________%</td>
</tr>
<tr>
<td>B2G (sales to government)</td>
<td>__________%</td>
</tr>
</tbody>
</table>

1.3 Please characterize the services which are typical for your company according to provided attributes. (scale from 1-10, I means very low, 10 means extremely high)

- Degree of labor intensity
- Degree of customization
- Degree of standardization
- Degree of customer interaction

1.4 If your services are developed by cross-functional project teams, which units are represented in these teams?

- Board of Management
- Business Development
- Controlling
- Customer Service
- Human Resource Management
- IT
- Marketing
- Operations Management
- Product Management
1.5
To what extent do you agree with the following statements regarding the role of technology in your industry? (scale from 1-10, 1 means strongly disagree, 10 means extremely agree)

- The technology in our industry is changing rapidly.
- Technological changes provide big opportunities in our industry.
- A large number of new service ideas have been made possible through technological breakthroughs in our industry.
- Technological developments in our industry are rather minor
- It is very difficult to forecast where the technology in this service area will be in the next three years.

1.6 In a typical service development project, on average how many persons are involved?

__________ people

2.1
How important are the following sources for ideas on new services in your company?

End-users/Customers
Suppliers/Partners
Competitors
Employees
Consultants
Academia/Research Establishments
Other Markets

2.2
How important do you consider the following steps at the development of services?

Idea generation and evaluation phase
(e.g. brainstorming, ideas from customers)

Business analysis phase
(e.g. market trends, costs & benefits, customer requirements)

Concept development phase
(e.g. definition of service levels, processes and resources)

Test phase
(e.g. simulation, usability tests, market tests)

Training phase
(E.g. training employees before the service get launched)

Implementation and launch phase
(e.g. training, market launch, feedback and review)

2.3
If you look again at the steps for developing a service, which percentage of the total development time do you devote to each step?

Idea generation and evaluation phase  ________% of total development time
(e.g. brainstorming, ideas from customers)

Business analysis phase  ________% of total development time
(e.g. market trends, costs & benefits, customer requirements)

Concept development phase  ________% of total development time
(e.g. definition of service levels, processes and resources)

Test phase  ________% of total development time
Questions that have been asked during the interview

3.1 Could you summarized how many phases involved in the E-care service? Could you give me an example of detailed information of each phase?

3.2 Could you tell me how do you get information from customers? How do you analysis those information? To what extend you think those information is important to you?

3.3 How do you analysis the situation before launching a service idea? What’s the crucial factors you think this stage include? (e.g. competitors information, external information for the company)

3.4 Do you think it’s hard to manage the project team as a manager? What’s the main problem in managing the project team?

3.5 What’s the technical advantage does Lenovo has?

3.6 What’s the main technical system for E-care service?

3.7 How many people get involved in the launch stage? Which department were they come from?

3.8 How important do you think the cyber marketing influences Lenovo?

3.9 Is there any marketing strategy includes in the marketing?

3.10 Which percentage of your services turnover is achieved with new services?

3.11 What is the innovative way of this idea comparing with the old way?
2 Major Transcripts of the interviews

1. Lv zaifeng-Vice president

How do you define Lenovo as a manufacturing company?

Lv: “We hope that when people talk about Lenovo, they are not considering that it is the traditional PC manufacturers, but a professional services company. “Service to the association, the amount of weight a day for one day over the past three years, the company's annual revenue growth from services in more than 40%.”

Is there any common value in Lenovo? Could you be more detailed?

L: Yes, it can be conducted into four categories,

“Customer success - our commitment to each customer's satisfaction and success.
Entrepreneurial innovation - we pursue the customer and the company are critical to innovation while quickly and efficiently to promote its realization.
Integrity - We strive for trust, honesty and personal responsibility, whether internal or external.
Multiple win-win situations - We promote mutual understanding, value diversity, take a world view of our culture”

Could you briefly introduce the e-care service to me?

L: E-care can associate with the "360" to summarize, it provides users with the full range of care. 3 refers to the "3-play", that is, the user, whether by telephone, Internet, or the terminal can get the point of contact to resolve the whole experience the best service. For example, the user information can not only have been provided through the association registered 800 hotline, you can also register through the official website. 6 refers to the six most distinct features, which include the online repair, repair appointment, remote receiver, intelligent repair, push the program, and other online long distance expert. The most recent content - online "intelligent repair" services are a set of network solutions for intelligent interactive system, users can associate the service by the introduction of "intelligent robot" system failure to solve the problem step by step guide can also be driven by intelligence installation, repair and other intelligence software testing tools to achieve user self-service network intelligence solution, without manufacturing help. If the user experience the application of computer software
and network, you can use "intelligent robot" services, like face to face with engineers, operation glance. Concluded that "0", 0 is specific and customer "up close, personalized care," that Lenovo offers users the most convenient way to contact and contact, allowing users to enjoy anytime, anywhere high-value professional services association, and through personalized care activities for users and associate pool together, the use of common growth and high value in return. Put into use intelligent robot system is the Lenovo Business Products Terminal customization system ePack important part, is also a product of innovative services business model.

Could you tell me the background of e-care service development in your own words?

L: A few years ago, Lenovo began to develop new model for IT services. March 2008, Lenovo introduced eCare network platform, will field service, telephone service and Internet services to build into "triple play" a strong IT service delivery system. "Based on a common data platform, users and engineers in the field of the exchange or phone contact with consultants, or visit the website, users receive all services records, personal information, subject information is the same, so that to achieve good a seamless connection between the three networks."

How can customers benefit from the E-care service?

L: Users can easily scheduled when the network needs of home, or when appointments to city service station, and wait for him to service stations, related services, information, machine information and spare parts at the service stations are ready, the user need not re-run many times. Triple-play services to users with considerable convenience.

What gives you the idea in building up E service?

L: As the Internet been used more and more nowadays, the internet is becoming increasingly popular, the continuous development of network services so that part of the user requirements can be solved through the network more and more users are accustomed to network problems. IT services are currently undergoing dramatic structural changes that Web services are becoming an increasingly important service implementation. According to Lenovo's IT service statistics, in June 2008, the network services the proportion of the total volume of services is about 10%, now nearly 40%.

How do you decide to launch E-care?
L: Lenovo is currently China's service network coverage is very broad, very strong response, there are 1514 professional authorized service stations, home service area to the north, Mohe, south to Sanya, even Tanggula the depot, the service network 100% coverage of more than five cities. Our Contact Center has more than 800 telephone lines, 600 seats, to answer the phone every day up to 3 million; nearly 7,000 engineers nationwide to serve customers, two spare parts centers, 18 sub-regional spare parts library and more than 300 first-line database, ensure that spare parts for the day before 10 o'clock the next day to the proportion can reach 95%.

2. Li He

Could you describe the process of e-care in your own words? How many steps included?

Li: Yes, Marketing analysis and collected information from customers, analysis idea and information from the previous step and make decision to assess customer intents.

An report will be approved after this and analysis the availability of this service from related such as financial department.

Once the Idea was fixed, projected team is formed and people from various departments are included. After this is designing the service and the whole process.

Prototype of the service is made after this and the following work is testing within the project team first, and then retesting with customers, finally is intruding this service to the market.

3. Liu xiangyun-exclusive department, as a spoken person of Lenovo in introducing robot I

Could you introduce the advantages of robot I to me?

LIU: First of all the advantages of robot service is for users to provide true 7 * 24 hour personalized Consultancy Service, which is only robots can solve; at the same time, while facing the same time each users, different space, different access to information way, different understanding and operational level, to allow all users to receive timely needs own personalized information, regarding this, the Internet also obtains "thinking" ability of robot can do better.

Why intelligent robot?
Liu: It can be said, the network robot services have been successfully applied to the need for large numbers of "customer service" among the typical industry, there is no doubt that the same associations in which the IT industry has become the need for "large-scale service industry" - The industry's need to target users of the full repeat, but it is limited to the domain of professional services, fully consistent with the characteristics of the robot. If it is traditional, and all enterprises need to increase staff and network costs, many customers ask is routine problems, customer service personnel need to repeat the answers. Although robots can not replace people, it is generally able to answer 80% of the problem, if not 20% of the answers, you can automatically shift to manual, you can greatly reduce costs and improve efficiency and response. Meanwhile, the robot can be infinitely expanded customer service capabilities is amazing - a robot that can dialogue with thousands of simultaneous users, the problem is not more than 0.1 seconds responding time; In addition, intelligent robots with the intelligence nature is also reflected in the active customer service - based on the user database, the robot can take the initiative to send the service prompts the user (e.g: computer regular maintenance tips), found that product take the initiative to notify the user, in the outbreak, the eliminate the invisible crisis, avoiding the user, the double loss of company reputation.

Another reason of this is: from the partners of the industry's profound understanding of environmental change, above all, the changing needs of service users. Internet users are in the information age, a more rational consumption and the pursuit of quality, "good attitude" is far from meeting the needs of users of services, professionalism, convenience and rich user experience increasingly affect customers satisfaction important factor, even the most critical factor. Full use of Internet technologies and resources Intelligent Robot service model innovation is small i robot from a deep insight into customer needs and understanding. Meanwhile, the current IT industry's new hot spot from the increasingly fierce competition in product technology and quality contest, competition, changes in the value of mining services, not only can optimize the system processes to enhance the overall cost competitiveness, but also can increase the product selling points and enhance the brand premium, no doubt to Intelligent Robot service system innovation and service as the representative value-added services for IT vendors to provide a strong boost.

4. Mao xiaoming

Could you introduce how the robot I can help customer with their several of problems? Could you give me some examples?

Liu: Once get Accessed to Lenovo's Web site, you will find a clear "Lenovo intelligent robot" icon, click to enter "service and support" page, the robot will
warmly provide users with computer problems on Lenovo quality service. As long as the user input Lenovo Lenovo host ID, you can get the robot's on-line services. After the succeed signing in, to service the page, enter the map-oriented page. First, the robot will say: "I am pleased for you answer your computer questions encountered in the process," while the robot on the right page provides various software/hardware optimization download functions to facilitate the Lenovo users to upgrade, according to a very simple tips page, users can easily operate to achieve a direct click to download to your computer.

At the same time, users can directly input in the left dialog box asking relevant questions. For example: User question: "how the keyboard can not be used to do?" Robots will be answered immediately, "Your problem is one of the following description in? 1, the keyboard no response after pressing the button? 2, the computer machine or parts damage the appearance phenomenon? 3, device driver installation is installed or not? - You can click on Options, you can enter a serial number in the dialog box or option key elements of ", time, the user can be selected according to their own situation, such as select "1", the robot would say: "Hello, for your problem to find a solution to the right page to show you."

The concept of more complex issues, such as displays, "color cast" the type of problems, the robot will give the image of the dynamic visual icon to help users correct choice. The user to make a choice, the robot will guide the user to select adjustment to improve the operation - here is the association in a new eCare service platform for intelligent robots important new application areas - online smart repair. If the computer is a serious failure, need for maintenance professionals, that the robot will be after the user selects the network to provide maintenance for users to submit service orders - this is the eCare in the online repair and repair appointments

5.Zhu jin

Are there any marketing activities linking to E-care?

Zhu: Yes, During the national holiday, in this period. people who bought Lenovo Tin Yat are free to get access to the value of 588 yuan a "worry-free card remote services Lenovo notebook"; who bought sun products, can add 99 yuan to get the value of 588 yuan for "Lenovo notebook worry-free remote service card ", and enjoy half a year period, using 20 times the free distance services. Lenovo engineers will be in the national holiday period, to 30 cities nationwide, to provide users with zero distance of the site free to volunteer.

Skit, "Lenovo e-family" uses flash animation, each episode introduces a eCare services. Sketch of a grandfather, father, mother and grandson for the role of
family life as the background around the application of computer and network service issues encountered, easily tell eCare function, expressing "full service network zero distance" of the eCare concept. "Lenovo e family" program designed six episodes one after another, now released four sets, respectively, Lenovo introduced "remote support" (also known as "family software master"); "online repair"; "smart repair" and "reserve repair" Item eCare service function mode features, including "Little Superman" eCare mascot is very interesting. It is reported that Lenovo eCare Network Services in March 28, 2008 officially launched the development of very rapid, daily site visits to 100 million. One remote support, online repair, auto repair, repair appointments, programs push, intelligent robots, six major features as the user very much welcome the way the new services, this has become a "family association e" creative blueprint.

**How about the acceptance from customer of e-marketing?**

Zhu: conduct research under the Fifth Ereli users to data in the past year, the most impressive users online advertising in the most intimate association is a network of advertisers, in the first reference, second and third reference to network advertisers in the percentage of votes is always leading. Particularly in association with the first reference to a percentage of 9.14%, both much higher than the 5.53% second of Nokia, but also much higher than the 2004 survey data show that Internet users conduct the first three weeks of 5.5%

6.Zhu guang- Chinese marketing president

**Could you explain why E-care chooses cyber marketing as the implantation?**

Zhu: "Because marketing is very important aspect is to majorities, most people have the opportunity to participate. Network is a very good platform can not only access to information, its not the same as with other parts of the media is also an interactive network, which would make ordinary people's participation greatly enhanced."

**Comparing to the traditional media how much importance would Lenovo put in to cyber marketing in the future?**

Zhu: information and interaction over internet influence customers strongly that traditional media is incomparable, the internet impact customer to get information faster and easier and spread this to great extent. This is the traditional media can not be realized.
When the number of over 100 million Internet users when any brand can not ignore such a huge market for Lenovo, the emphasis on the Internet, the Internet to do more to marketing, combined with cultural and service to the people the concept of better communication, enterprises can obtain better benefits. Lenovo will invest in the Internet with growing proportion of advertising. Cyber marketing is very important to Lenovo

**Could you name the characteristics and advantages of cyber marketing comparing with traditional media?**

Zhu: I think it has several features. First, the network’s initiative in the consumer. This is a very big challenge and a good opportunity. How do consumers take the initiative to interact with you, become very important. Second, relying on technology development. Because the interaction itself is no longer a concept but a practice. When you see the TV ads, you will not be interaction with it immediately, but in the Internet or phone you to go and it can interact with it in a timely manner. Third, it is very personalized, and customized. Such information, products, services, etc. These can all be customized, which is very difficult to do traditional marketing. So the network has very good features, this is a general disadvantage of mass media. New media and traditional media are not mutually exclusive, but complementary. Especially in China, mass media will not disappear, it will be digitized. The biggest feature is the new media initiative, interaction and control.

**To my limited knowledge, audiences of internet marketing, some of them are stylish, rebellious youth, how does Lenovo attract them in their consumption concept and behavioral patterns?**

Zhu: There are two points. First, many people think that Internet users are young, fashionable, in fact, Internet users not only concentrate in the youth, middle-aged white-collar workers is also a very important ethnic group. Young people do not like traditional the way to receive information, do not like one-way, self-righteous way of communication, they love to experience. Second, you give him a chance to others to Share, exchange, they are not a very independent group, and they like to see or think their own good to share with others. Whether young or white-collar workers, family and some middle-aged people, whether in study, work or life, we are more and more applications and relies on the network.

**Could you summarize the key words of cyber market?**

Zhu: Two words. The first is for different focus groups. The second is strongly participatory and interaction.

6. Lin: project manager of E-care R&D department
Lin has sent me his presentation of E-care 2009 seminar in Beijing.

Could you tell me what gives you an idea in doing this E-care at first?

Lin: Three points. One is the assessments of Lenovo and second one is information from our customer, third one is the trend of market. I showed those reasons in the presentation I sent you in seminar. *One-quarter global PC shipments 53.2 million units Lenovo's market share of 6%=3000000 units.* 20000 calls are picked up by call centers and each of the call costs 2 yuan without labor costs.

Where did you get customer's information?

Lin: Mainly from our customer managers and some of them are from marketing and other departments.

Could you introduce the target customer group of E-care to me? Could you explain the characteristics of each categories?

Lin: yes.

1. The entry-level customers
   Such people buy a computer for a short time (generally within 3 months), for random systems and software should be with the more familiar, much-needed "face to face" type of use of *counseling*.

2. Computer beginners
   Through the entry phase of such groups have been able to use basic computer functions. Meanwhile, a number of the use of common software has a lot of demand for many applications arising from problems.

3. Tool-using
   Such people only use the computer as a tool, not on hardware and software in-depth study, When faced with no way to solve software problems. Such as: non-IT practitioners, the elderly, etc.

Customers from small and medium sized companies.

1. No specialized IT staff smaller companies (typically less than 20), non-IT dealers for routine application to their needs to use and maintain.

2. Requires integrated solutions large number of enterprises purchase *Lenovo product, and hope that Lenovo offers integrated services solutions.*
Could you tell the configuration of the team?

Lin: Mainly include people from five departments, HR, exclusive, system, marketing, planning.

What’s the main task for each category of the project team?

Lin: Marketing is for market promotion and collaborate with other products
Planning is for designing and planning the whole project
HR is for training and service
System is for development and implementation
Executive is for office equipments and planning for location

How is the operation situation of E-care?

Lin: Fair, the registration number of registers for this service is increasing, from 6.7million to 27million so far.

Could you describe how many stages involved in the e-care service? Could you explain the main activities in each stage?

Lin: Mainly about those stages.

1. Idea generation: This phase of the planning stage, through the assessment of customer and market needs and then defining new product development programs and to assess the maturity of the technology, prices and costs, comparison with the content industry.

2. Screening and analysis: Knowing more about what customers needs, collecting information from marketing, R&D, analysis the wants and feedbacks from similar service/products. In the end of this stage make actual developing plan for the new service. Then we make report and check availability of this plan. After the commitment from top manager of the company, the project team formation can be following step.

3. Formation of the project team and selecting team leader.

4. Service design and process design including APQP progress report, design the whole process, design the standardized prototype.

5. Prototype testing.
6. Market testing

7. Commercialization

Lenovo has its own standardized procedure in developing new service or product. I can send you some documents about this later on.

**Could you explain where and how do you the innovative idea at the beginning?**

Lin: By talking to customers and marketing analysis. From four aspects in general:

1. The market's immediate needs, such as office automation products, various types of enterprises, such demand is very mature, very clear
2. Accountant managers brought back from the client needs, such as business people visiting customers to understand their needs, and then come back the message to relevant personnel, the demand for further research, project, R & D
3. Some forward-looking product development, such as the power industry worldwide is now to implement smart grid, which is a great idea, although no specific requirements for the time being, but we can try to do some research, and to seize the market soon
4. Completely innovative product development to guide the market. For example I used 10 years ago, the unit began the development of urban public class terminal (similar to the business hall of the navigation terminal or terminal elevator ads, etc.), then no one has proposed such demand, then the first to produce products, go to guide market.

**Then what's the next step?**

Lin: Formation the project team.

**What are the main activities in this stage?**

Lin: The project manager is elected by manger of R&D department or the company. After this, project manager will pick up team member from various departments according to analysis of characteristics of new service, then authorization will be approved by manager of the company.

**How about design service process and system you mentioned earlier? What the major activities in this stage?**

Lin: Initial research, analysis, plan, project applications and approvals, manpower
and budget allocations, needs investigation and confirmation of the preliminary
and detailed design, coding, unit testing, integration and integration testing,
release, etc. Some activities and detailed information of this stage also includes in
the seminar 2009 in Beijing, you may check it out later.

**How about the testing phase? It’s after the designing stage am I right?**

Lin: Yes, you are correct. Testing is about implementing refinements. It’s about
testing the service under a simulated condition to see the acceptance of the new
service.

**How about test marketing? What are the differences of this phase and the
pilot run precisely?**

Lin: The major difference is the interaction with customers or users, I may say.
Limited roll-out in selected customers and market.

In the end, is the industrialized stage various activities included in this stage.
roll-out marketing, distributor and promotional actives via mass media, etc. In
addition, I also learned from this project is that you have to find different customers
in tager group to test and retest in the designing the service.

7. Wang xin

Lv zaifeng has mentioned the IT support of E-care in using SAAS.

**Could you explain why use this support?**

Wang: It’s for the target customers. The rapid development of Internet technology
to enable small and medium business applications has changed from 'Phone +
Fax' into a 'computer + cable'. demand for network applications is growing, their
end products to lower computing power, while the back-end computing power to
do more to products, online applications will become mainstream. The family of
Lenovo products introduced in SME entry storage, one machine and other
products, and integration of leading SaaS applications, is the small and medium
enterprises to respond quickly to the needs of users in this regard.

**What are the advantages of SAAS?**

Wang: Low-risk and low cost: Time in using SaaS application solutions on-line
program only takes a few days or even less time, money used on hardware can
be saved.
More flexible, more efficient: According to customer demand freedom to choose the type and time of SaaS services is a key advantage of this model, the corresponding business enterprises the flexibility to change or expand, saving cost-effectiveness and increase their core competitiveness. BUG enterprises generally need not worry about the software or upgrade problems, SaaS service operators Chamber of Commerce for the first time on the platform to address these issues, presented to the user is always the latest version of the solution.

IT departments to give more meaningful work content: usually that is responsible for corporate IT departments within the network, applications and hardware and software products added to our stable of work. But usually they often unstable in equipment or software downtime, compatibility issues under pressure. SaaS software lease, these issues are left to operators, enterprises and IT departments can focus on developing the competitiveness of those organizations directly related to the application.

How did specialists design the service system? What are the major activities that included?

Wang: I can not describe the detailed information about this since it's extremely complicated. CMMI (Capability Maturity Model Integration) is the main mode we relevant to here. You can Google it later. Of course we ask some target customer to assess their ability and building up customer’s lens of the process designing.

8. Wang ming-R&D

Could you describe the whole process of developing E-care in your words? How many stages in there?

Wang: First stage is the idea generation I guess, collecting information from customer and marketing department, then the related people will analysis the availability of the new idea, judge whether the idea can be launched in to practice. after this company will make commitment of this and select leader of the project, various of people from many departments will be picked up and series of meetings will be hold after this, including analysis the new service and what kind of technology its needed and how much budget its need for each sub-designing phase. Then once those plans and analysis get fixed, the designing began. once the design phase is made the prototype of service is made and will be tested within our engineers first after this some changes will be made, then retest with customers and finally make commercialization of the service and introduce to market.
Lu xiangping

How does Lenovo manage staff to be motivated and enjoyment in service system? Anything special?

Lu: The power of examples is endless, "Lenovo is better to set an example that incentive. Technicians and administrative staff more incentives and training need is the collective spirit, otherwise the business will become a mess. Hi-tech industries require it scientific and technological development can only target the market demand, only a few selected items as a breakthrough after all human, material focused toward these projects. Undertake development projects of the researchers can not be attributable to the outcome of the right to seek work independently.

In this project some specialists from technical departments found it's bit hard working with co-workers and they rarely communicate with others. Some employees find it's hard to consult them sometimes. The company developed owned way of dealing with this situation. We encourage them to give lectures within the team to teach others of their technology and skills. On the other hand, they also encouraged to write brochures and studying materials for others.

Does it work out?

Lu: Yes, it’s helpful in many ways.

How does Lenovo encourage staff?

Lu: Lenovo Group has always believed that incentives are always open system a must with the times, the environment, the market changes constantly changing form. This first manifested in the association at different times have different incentive mechanism, which the first generation of Lenovo with 80 persons company focused primarily on foster their spirit of collectivism and material life basically meet; but 90 years into the future, the new generation of people right materials need the company to be more strongly, and have strong self-awareness, starting from these features, Lenovo has developed a new, rational, and effective incentive program, which is a little more space, more methods, according to the characteristics of high-tech business development incentives and more Runway: for example, so that outstanding business performance and sales staff salaries and bonuses is higher than many of their superiors, so that so that they can present, rather than painstakingly to leadership positions, they will no longer that only an official in order to realize value, because being a successful designer and
salesman as to reflect their own values, so they put all his energy and talents are put to best suit their work, thereby creating maximum working efficiency and performance. Lenovo always maintained that the runway will only encourage a crowded; we must encourage to build up more runway, so as to enable employees to really feel at ease in his best work post. Second, employees need to find a way to understand what it is to distinguish those who are reasonable and unreasonable; those are the major and minor; who meet now and the future efforts can do, short of incentives Lenovo mechanism is mainly a means to inspire, methods and purpose of encouraging the combination of incentives and effect so as to achieve consistency. They have the incentive to take the means to be flexible and diverse, is based on different work, different people develop different situation with different system and must not be a system of single-mindedness.

It’s also to the reward system, Lenovo Group, wages have adopted jobs. The so-called post wage system is based on the importance of employee job done, assume the responsibility of the size, complexity of work and many other factors determine the value of the post. According to the value of post paid to employees, to understand each job evaluation, job evaluation methods used Lenovo is the world's leading Enterprise Resource Group CRG (Corporate Resources Group) Company of the method. CRP 3P company famous theory that pay for positio (for the post paid), pay for person (for the skills paid), pay for performance (the performance fee), referred to as P1, P2, P3, around three "P" Lenovo has taken in accordance with their own characteristics based P1, P2, supplemented on the job evaluation system to assess, CRG international assessment system is used to quantify the value of job evaluation methods, this approach is more internationally recognized and widely used, and combined with efficient and scientific characteristics. CRG assessment system is based on three of seven factors and 16 dimensions of the job evaluation: the first is duty-scale, two factors: one factor is the position of the enterprise (including the size of enterprises, The position on the two dimensions of business impact), another factor is the job performance of supervisory and administrative functions (including management of staff and number of categories of two dimensions); The second is the terms of reference, there are two factors: One is the position of responsibility (including the breadth of its responsibilities, duties and requirements for the independence of the three dimensions of business knowledge); Another factor is the position with the necessary communication skills (including skills, use of frequency and three dimensions of internal and external use); The third aspect is the complexity of the work, there are three factors, one factor is the job qualifications (including qualifications and experience of staff posts two dimensions), another factor is the solution to the problem difficulty (including the appointment required a creative staff and workers, the complexity of the two dimensions), then a factor is the working conditions (including the duties of the risks and the impact of environment on the two dimensions of Personnel).
Lin di as the project manager told me the 4Ps strategy was used in marketing of E-care,

Could you detailed introduce this to me?

Meng: I will introduce the 4Ps marketing strategy of Lenovo in general. 4P means marketing mix, with the arising of the proposal. 4P, stands for the product (product), price (price), channel (place), marketing (promotion).

From the products, said worldwide, Lenovo offer award-winning ThinkPad notebooks and ThinkCentre desktops equipped with ThinkVantage Technologies software tools, ThinkVision monitors and a range of PC accessories and options. In China, Lenovo PC products, nearly one-third market share. With its leading technology, ease of use features, personalized design and a wide range of solutions which are preferred by Chinese customers. Lenovo also has a rich Chinese market product lines, including mobile handsets, servers, peripherals and digital products.

From the price, the Lenovo recognized, to the fierce competition to survive and access to development, it is impossible not to support the brand. Company "a long line to catch big fish" to "high quality and low price" sales strategy, at the expense of short-term benefits to enhance the visibility of the company, creating its own brand reputation. The spirit of "more than the next" strategy, Lenovo first choice in product development, 286 model, 286 in the development and production of products, Lenovo, Lenovo, attaches great importance to quality control, strict procurement, manufacturing and processing of every aspect of foreign, the quality of its products ranks in the same 286 products superior. As the strict quality requirements, and the use of high-end components, making the company more than the cost of the product manufacturers in Taiwan and Hong Kong. But the company did not therefore set a very high price of the product, but take a cheap strategy, each product than the price of similar products in the Hong Kong market with low 1 2 U.S. dollars. This "high quality low price" strategy was first implemented, to think the company suffered big losses, the company sold 8,000 plates per month, not only can not profit, but also loss of I more than 10,000 U.S. dollars, for months, a total of lost nearly 10 million. However, the market because the product life of 286 short, this loss of momentum did not last long, but Lenovo has thus created his own reputation, attracting a large number of loyal users. When the 286 products have been gradually phased out, Lenovo launched its own in the 386 and 486 high-end computer, with a good brand image has been created, Lenovo sales were a great success. Hong Kong Director of Lenovo Group Chairman Liu had disclosed to the media, the company exports the
motherboard and graphics card to reach five million in 1993, ranking third in the world, thus obtained huge profits quickly make up for the earlier low Xiaoshou 286 PC loss.

In short, the right business strategy is Lenovo's key to the success of multinational operations, our other businesses engaged in transnational business, they should learn from the experience of Lenovo, a long-term, to develop the right business strategy to take the appropriate competitive strategies; should take appropriate strategy, and strive to create their own brands.

From the channel side, two out, including the middle - a reasonable geographic distribution of the value chain.

The so-called "two out" refers to the value chain, Lenovo will be the most upstream and most downstream part, that product development and product marketing these two areas, set in Hong Kong, Lenovo. As a re-export center of our world, compared with the mainland, the market is more complete and more international, and more channels of information flow, product development and product marketing developed the two put our link and allow the company's technology officers to timely access to market information and technical information, both to understand the market and technology progress, thus shortening the product development cycle, the company's computer products to keep up with international trends.

"Including the middle", it means that Lenovo will be the middle link in the value chain, that links on the mass production of computer products, such as Shenzhen, mainland China's production base. China's labor costs, real estate prices are much lower than Hong Kong, the production processes on the continent, can greatly reduce production costs. Lenovo addition to the manufacturer to invest in Shenzhen, in mass production factories, but also entrusted with the processing of other domestic manufacturers to develop cooperative relations, this way to avoid a large investment and infrastructure, but also increases in order to ensure supply.

11Liang minqiu

What's the marketing strategy of E-care?

Liang-From the marketing side, Lenovo several times to launch nationwide large-scale promotional activities, including the focus on the promotion of business computers and strong summer sales promotions and preferential policies, achieved significant results.

Another strategy is STP, STP strategy - market segmentation, target market and
market positioning.

Market segmentation is the inevitable trend of the market mature. Market segments are not based on product variety, product family to carry out, but from the consumers (refer to the final consumer and industrial producers) perspective division is based on the theory of market segmentation based on that consumer demand, motivation, buying behavior of diversity and difference to division. Through market segmentation on the production and marketing play a vital role.

Market competition, both between enterprises dependent on the degree of exclusion of another, depending on the capacity of the target market, level and different business conditions, the type of competition in its target market can be divided into four categories:

1. Crowding type. That competition in the target market, the progress of a business enterprise must make another recession, survival of the fittest. This usually occurs in many companies the same time the capacity is not the same products to compete in target markets. Lenovo continue to introduce new products quickly capture the market

2. Share of type. That competition in the target market, the company's products each accounted for a certain market share. When the target market large capacity and the enterprise product can not meet demand, can be common to share this phenomenon. This sub-account, and some place in between heterogeneous regional markets, and some place in between heterogeneous level market, while others occur in homogeneous markets.

3. Exclusive type. That is its unique skills in a business enterprise is difficult to penetrate other exclusively a particular target market. As a global leader in the PC market, Lenovo develops, manufactures and markets the most reliable, secure and easy to use technology products and professional services to help global customers and partners to succeed.

4. Joint type. That some enterprises to enhance competitiveness, together with each other to produce the same respective strengths of collaboration products to target markets, competition, others as a leader with strong opponents, at home and enhance the advantages of weak links. Began in December 2007, Lenovo will launch simultaneously in the national market value PC products pre-installed software programs. Microsoft, UF and Kingsoft Lenovo first software companies to become strategic partners. Lenovo desktop and notebook pre-installed English version of full Windows operating system, Kingsoft, drug gangsters, UFIDA family finance software, and a variety of added value innovation Lenovo software, this will give consumers access to 500 preferential treatment to 1,000 yuan. This is not only to Lenovo and other companies have brought benefits, but also bring
12Liu changjing

How does Lenovo satisfy customers’ needs via cyber marketing?

Liu: Lenovo as an international leader in the PC market, development, manufacture and sale of advanced, reliable, high-quality PC products and provide value-added services for global customers better options to enhance productivity and competitiveness force. Lenovo’s success is to allow customers to achieve their goal: work efficiency, rich and colorful life.

Association dedicated to customer service always top priority. Lenovo's page in the "service & support" option in the visitors can get what you want to find most of the information. Not only with training, as well as technical support, but also the support of the wrong diagnosis.

There are unique, "Lenovo sunshine services", adhering to the "professional, honest, caring" service concept, for the majority of IT products provide coverage of IT products sale, sale, full professional after-sales service.

Three-year warranty from the first to achieve a launch site services, from the first round holiday launch service to be the first to provide IT support services for the Olympic Games the Chinese manufacturers, to the just launched this year's "2x2x365" quick fixes, etc. Lenovo through long-term commitment and experience, the service is always one step ahead. And in 2006, Lenovo and also enhance the quality of services, such as comprehensive website services, improve self-service, practical technical information and drivers download, 24 hours after both the engineer received the message within 24 hours to respond. But now the E-mail services only for home desktop computers, business desktop computers, laptops, printers and server products, customers, other products and only use the telephone to contact their way.

Lenovo has the benefit of innovation for our customers. It is committed to customer satisfaction and success, the pursuit of efficiency and speed, to establish relationships of trust and responsibility, to implement the business management and decision-making, have made their online marketing more successful. Web design is not only good, and its web site to promote products, services, and so also do the more successful. For sales also played a very important role, so in this network marketing is very concern of the times, its sales still remain up.

Although the association of network marketing there are imperfections, but I believe their mission of innovation, the marketing of its network will be further
innovation and further improved in order to further meet customer needs and interests

**Could you describe the whole process in developing E-care? How many stages in there?**

Liu: First, some information will be collected by the marketing department, meantime, some information from our customers are approved, people from R&D department will use those information to make a blueprint of the service. Next, the report of blueprint will be examined and then revised or reject.

Company will arrange the project team and name the project/product manager and product consultant; they will arrange a meeting to discuss and analysis the blueprint of the service, finding out people of the new project, afterwards picking up various specialists from different departments.

The project team will analysis and having meeting together to decide each of responsibility, like marketing department in this project, our responsibility is for promotion and finding cooperation.

The following step is designing, the process of designing e-care is mainly in charged by system department for the technical aspect.

Then is the testing phase and the related department will revise bit after simulated condition.

Finally is the market testing, customers are asked to join this phase and we get feedback from them afterwards, then modification of the service will be made. In the end is the commercialization and working with our department.

13. Wang wenjie

**Could you describe the development phase of e-care in your own words?**

Wang: We first get information from customer and drawing the picture of the idea, marketing department will help us in research of marketing and find the competition of the e-care if it get launched, then people from R&D and other departments will make final decision of idea, such as what the new service like, what function does it has etc…

Our project team is formed after the decided idea, and people mainly from many departments, system, HR…etc.

E-care service and process design is after this, the core service in technical
Jia wei-Exclusive department

Could you describe the development phase of e-care in your own words?

JIA: We collected information from customer and marketing department at first and did some analysis before designing the whole service, then I guess it’s design the service and process within our team, then testing the prototype(system) of the service, contact customers and ask them to do the re-testing before final launching to market.

Wan yuzhuo-Manager of QDI

Do you found it’s hard to manage the E-care service team from managerial perspective?

Wan: it’s hard, especially for those technology specialists, they are always quiet and not good at dealing with relationship with other co-workers.” The team members have to collaborate with each other instead of being as an island. Some of the staff felt they considered everyone beneath his notice once he control the core technology. I guess people who are willingly work as a team have to dump his strong character and start collaborating on other members in the team.

In addition, the company has its own way managing people like this, we held many lecture within the team and ask them to train up their subordinates. It’s their job to train people who are new. We also encourage them to write books and spread their knowledge within team.