Hong Xing

Service Innovation in Hotel Industry
Case Study of InfoQuest

Service Science
E-level thesis

Date/Term:
Supervisor: Lars Haglund
           Erik Sundström
Examiner:
Serial Number:
Abstract of dissertation

Being developed for centuries, Hotel Industry has been in its maturity period for a long time. Confronted with fierce competition and the current global economic crisis, it becomes a hot topic in Hotel Industry how to maintain and raise revenues. By shifting focus from ‘Goods-Dominant Logic’ to ‘Service-Dominant Logic’, Service Science presents a new perspective on value creation and service experience. In this new perspective, value is co-created by various roles, experienced and evaluated by customers. However, the problem is how to implement theories in a specific industry. Focusing on hotel industry, this paper aims to illustrate how service evolves with the development of technology and theory based on the case study of InfoQuest, which is an IT company mainly providing SaberKnot. InfoQuest redefines several economic roles (hotels, IT system provider, local businesses and customers) and relationships among them (from a linear model to a netlike model) where it injects Hotel Industry with new vitality. Both competitive advantages and potential problems that might arise from the service innovation are subsequently discussed. At last, a further analysis is made on the China market in order to show the possibility of that business entering into China.
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Chapter 1 Introduction

This part gives a brief background of my study, the objective and structure in brief, and research methodology of my paper at the end.

1.1 Background

Service innovation has been constantly studied to serve customers better. However, as one of the oldest industries, it is hard to innovate in hotel industry with traditional methods. Fortunately, an emerging discipline called Service Science, and information technology - an outstanding representative of modern civilization, give us a good chance to innovate services in a new way. In this paper, hotel industry, information technology and Service Science are the background of my study.

Hotels make profit mainly by providing lodging service. For many of travelers in their vacation, visit or business trip, hotels are places they stay when out of home. As a mature industry, hotels industry now includes all types of lodging from luxurious 5-star hotels to youth hostels. Besides room services, most hotels also offer a variety of accessorrial services, including but not limited to food, beverage, laundry and valet services. Additionally, the high level hotels can offer conference rooms, swimming pools, beauty salons, fitness centers and many other facilities to both business and leisure travelers.

Information technology (IT) is defined by the Information Technology Association of America (ITAA) as "the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware". Compared to hotel industry, Information technology came out rather recently, but has developed into one of the biggest industries with influences to most other industries. In hotel industry, the possibility to supply qualified IT services is regarded as one of the prerequisites for, at least, top level hotels.

Service Science is an emerging discipline that focuses on fundamental science, models, theories and applications to drive innovation, competition, and quality of life through service(s) (Bitner, Brown, Goul and Urban, 2006). Through shifting from Goods-Dominant Logic to Service-Dominant Logic, Service Science focuses on “operant resources” rather than
“operand resources”, which implies all economies are service economies. It maintains that services (including goods and services) co-created by stakeholders and customers can only be experienced and evaluated by customers.

1.2 Objectives and structure

InfoQuest Group AB (InfoQuest) is a company specializes in the IT segment with the purpose to bring its customers and partners innovative solutions. With the help of Information Technology, the company introduces a service innovation into hotel industry, which is the gravity of the research. The service innovation redefines several economic roles (hotels, IT system provider, local businesses and customers) and relationships among them (from a linear model to a netlike model). This thesis aims to examine (1) the competitive advantages and potential problems that might be brought by this service innovation and (2) the possibility to transplant such the new business model created by InfoQuest in Europe to China market, taking into account service theory.

The structure of the dissertation can be described as follow:

- Service literature review
  - which first provides a summary of Service Science and service innovation and then compares Goods-Dominant Logic with Service-Dominant Logic;
- Corporation description
  - which introduces InfoQuest and its main product SaberKnot, in particular its technical principles and commercial principles;
- Service innovation in hotel industry
  - Roles redefinition;
  - Value co-creation;
  - Competitive advantages;
  - Potential problems;
- Market opportunity analysis in China
  - China market introduction;
  - Typical local businesses;
  - Opportunities;
1.3 Methodology

This thesis focuses on research of service innovation in hotel industry. In order to carry out an in-depth investigation, this thesis adopts case study as the research design. A company named InfoQuest and its flagship product SaberKnot show us a possible way to innovate service in hotel industry, which is the case of this thesis. I choose InfoQuest as the case is because its new netlike business model involves both the shifting from Goods-Dominant Logic to Service-Dominant Logic and service innovation in hotel industry, which can confirm and supplement existed theory.

Data collection

The research methods used in this thesis mainly include documents review, secondary analysis, participant observation, official statistics, etc. Bryman and Bell (2007) pointed out the importance of literature review, most obvious reason of which is to know what is already known in the research area. From academic literature review, we can see advantages in the shifting from Goods-Dominant Logic to Service-Dominant Logic and theories of service innovation. There are quite a lot researches related to service theory and service innovation, so my study starts from a literature review to build up a theoretical basis, which covers the fields of service definition, Service-Dominant Logic, Goods-Dominant Logic, service innovation, etc. Literature resources include academic papers, books, and web pages, which provide me with existing research achievements in this field. However, most of these literatures do not focus on service innovation in a specific industry, and no primary data can be acquired from literature review.

According to Bryman and Bell (2007), “the basic case study entails the detailed and intensive analysis of single case.” From their opinion, a case can be an organization, a location, a person, or an event, etc. They also mentioned that qualitative methods, such as participant observation and unstructured interviewing, are very helpful methods in case study. The information of InfoQuest and SaberKnot is collected from several channels, including internal documents, participant observation, communication with colleagues, etc. In addition, the raw
materials used in China market analysis are mainly collected from official statistics. Most tables are quoted from website of National Tourism Administration of The People's China, and website of National Bureau of Statistics of China. Other statistics and policies are referred to websites of local governments or organizations. Some information from companies’ websites is also used to make competitor analysis.

- Reliability and validity

When people assess reliability and validity of a qualitative research, they care most about how the data is collected, analyzed and interpreted in carrying out the research project.

In order to guarantee reliability of my research, the information used in this thesis has been carefully selected and verified. For example, when describing the company InfoQuest and its product SaberKnot, I collected and compared data from different sources – internal documents, participant observation, unstructured interview, etc., and searched reasons why the data from different channels disagree with each other, if there were any. When entering into China market research, I also tried to ensure the data used in my thesis reliable.

Validity in qualitative research refers to using appropriate methods to analyze and interpret data. To achieve it, I tried to observe the collected data from as more as possible angles, and referred to more than one scholar’s perspective to analyze and interpret the data. For example, when analyzing the new netlike business model, I put one role into the center position each time to get four ‘same’ and ‘different’ models.

Since InfoQuest is still a developing company and the new business model is at the very beginning, there are no finished projects that can be used for research (all the projects are underway), majority of the analysis in this thesis can only be conducted at the theoretical level. However, with the development of InfoQuest or similar companies, I believe through study such a representative case can help us to examine existed theory and provide primary data for further research.
Chapter 2 Service literature review

In this chapter, service related theory background of the study in this paper will be introduced, mainly involves Service Science, the shift from Goods-Dominant Logic to Service-Dominant Logic, and research of service innovation. In the next several chapters, this theory background will be used to analyze and explain a specific service innovation case in hotel industry.

2.1 Service Science

Service related research was a part of product-centric theory until 1970s. After several decades’ development, Service Science, which covers a wide range of fields now, including service economics, service marketing, service operations, service management, service engineering, service computing, service human resources management, service sourcing, service design, and so on (University of Cambridge, 2007).

Service(s) are defined from different angles, which nevertheless sometimes have similar implication. Vargo and Lusch (2004) defined service as “the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself”. Grönlund (2006) defined services as “processes that consist of a set of activities which take place in interactions between a customer and people, goods and other physical resources, systems and/or infrastructures representing the service provider and possibly involving other customers, which aim at solving customers’ problems”. Edvardsson summarized service(s) in three dimensions as “in time and space linked activities and interactions provided as solutions to customer problems. The service is most often co-produced by the customer. Customers define service on the basis of value-in-use and the resulting customer experiences”.

Pursuant to the above mentioned definitions, some common characteristics about service can be identified, despite being described in different ways. Firstly, service involves processes and resources to benefit customers, and more than a final output. Secondly, service entails a co-creation model of value creation, and not a creation-consumption model. Thirdly, service is not a simply exchange activity, but represents an interaction between providers, customers and other parties and resources.
2.2 Dominant logics in business

The shift from Goods-Dominant Logic to Service-Dominant Logic is an essential part of Service Science. Vargo and Lusch (2004) introduced the evolution of dominant logic in business in their article, saying the logic “has moved from a goods-dominant view, in which tangible output and discrete transactions were central, to a service-dominant view, in which intangibility, exchange processes, and relationships are central”. Grönroos (2006), a representative of the Nordic School, declared that the “service logic fits best the context of most goods producing business today”. Although Nordic School’s view is not exactly same as Vargo and Lusch’s Service-Dominant Logic, many common features are shared between them. In addition, other schools or scholars have their own understanding of this new logic (though sometimes they do not mention the term of “logic”), which has been an international topic in the last few years. Attention should be paid to those different implications from different scholars’ perspectives. However, this paper focuses on the common features, rather than difference, in order to facilitate understanding the tendency of shifting from Goods-Dominant Logic to Service-Dominant Logic.

- Goods-Dominant Logic

Goods-Dominant Logic has been the mainstream theory for centuries. It defines value is produced during manufacturing process and embedded in the final “goods”. Unlike normal goods, services in Goods-Dominant Logic are viewed either as the restricted type (intangible, heterogeneous, inseparable and perishable) of goods, or as add-ons to enhance the value of goods (Vargo and Lusch, 2008).

Under the Goods-Dominant Logic, value is considered as “exchange-value” (Vargo and Lusch, 2004). In other words, companies receive profits not when products are produced, but when products are bought by consumers. Therefore, Vargo and Lusch (2004) suggested the firm “set all decision variables at a level that enables it to maximize the profit from the sale of output”.

In order to achieve at maximum profit, goods-based business strives to supply standardized and inventoriable goods. Goods-Dominant Logic regards customers as isolated entities (Vargo and Lusch, 2004). Value is solely produced by suppliers, bought by customers and destroyed during the consumption process.
Vargo and Lusch introduced the concepts of operand and operant resource in their article in 2004. Operand resources are defined as resources on which operation is performed to produce an effect. They are usually tangible and static. Operant resources refer to those resources which are employed to act on operand resources or other operant resources, which usually are intangible and dynamic.

Based on Goods-Dominant Logic, firm resources are primarily operand and customers are also type of operand resources, and it criticizes that Goods-Dominant Logic disregards the interaction in consumption. Since consumption is a black box for marketers, they are reluctant to know what and how consumers are doing with the goods (Grönroos, 2006).

- **Service-Dominant Logic**

Service-Dominant Logic emerges along with the flourish of service economy. Under this new logic, value is viewed as co-created by different partners with various resources through an interaction process. Grönroos (2008) suggested value emerges in customers’ sphere as value-in-use in their value generating process. Similarly, Vargo and Lusch (2004) also considered companies produce value through service experiences and relationships, especially in the co-creation and sharing of resources with customers, partners and suppliers, including skills and knowledge. Unlike Goods-Dominant Logic, the new logic largely focuses on operant resources, mainly intangible sources such as skills and knowledge, where value is co-created by consumers in an interactive way (Vargo and Lusch 2004).

As mentioned above, Goods-Dominant Logic does not pay attention to the application of knowledge and skills provided by the customer when goods and services are used. In contrast, Service-Dominant Logic emphasizes the role of customers in value-creating processes. Vargo and Lusch (2004) regarded providers as value creators and customers acting as co-creators of value. However, Grönroos (2008) suggested the creators of value should be customers, and providers performed the role of value co-creators, who provided the necessary resources to help customers to create value. Based on replies from 11 academic experts, Edvardsson, Gustafsson and Roos (2005) concluded to look at “service as a perspective on value creation through the lens of customer”.

Services in Goods-Dominant Logic are viewed as either the restricted type (intangible, heterogeneous, inseparable and perishable) of goods, or add-ons to enhance the value of
goods (Vargo and Lusch, 2008). On the contrary, Service-Dominant Logic considers goods as appliances for service delivery. Goods and services are both provided to customers as resources to assist them with their own value creating processes (Grönroos, 2008). In the new logic, service, rather than goods, is the focus of economic and social exchange. Furthermore, based a reconsideration of the common nature of goods and services in value co-creation process, Service-Dominant Logic implies all economies are service economies, all business are service business.

2.3 Service innovation

Service sector has dominated the world’s economy. In most countries, services nowadays contribute to more economic values than agriculture, raw materials and manufacturing all together. Service economies’ dominant position is more apparent in developed countries. Up to three-quarters of the wealth and 85% of employment are generated by services (Tidd and Hull, 2003), and most new job growth comes from services. The importance of service has been recognized by corporations, institutes and governments, and related research is ongoing. Within various aspects and disciplines of Service Science, service innovation therefore becomes one central part due to its critical role.

Since Goods-Dominant Logic has been mainstream logic for a long time, as far as innovation is concerned, the experience from manufacturing will be reminded to most corporations and customers firstly. However, there are essential distinctions between service innovation and manufacturing or high tech innovation. With the shift from Goods-Dominant Logic to Service-Dominant Logic, the innovation concept and process need also shift from traditional perspective to a new service perspective.

As suggested by Edvardsson (2005), “service is a perspective on value creation rather than a category of market offerings. The focus is on value through the lens of the customer, and co-creation of value with customers is key and the interactive, processual, experiential, and relational nature form the basis for characterizing service.”

Similarly, customer centered and processual idea can also be perceived in one of the definitions of service innovation from TEKES, a Finland’s research Agency. “Service innovation is a new or significantly improved service concept that is taken into practice. It can
be for example a new customer interaction channel, a distribution system or a technological concept or a combination of them. A service innovation always includes replicable elements that can be identified and systematically reproduced in other cases or environments. The replicable element can be the service outcome or the service process as such or a part of them. A service innovation benefits both the service producer and customers and it improves its developer's competitive edge.

- **Service innovation categories**

Academics have divided service innovation into categories according to their specific purposes and focuses.

Edvardsson, Gustafsson, Kristensson and Witell (2008) divide service innovation into three categories based on the level of scope where the innovation happens: "(1) type of innovation (service-level innovations), (2) the management of innovation (firm-level innovations) and (3) the innovation context (sector-level innovations)".

UK's Department of Trade and Industry gives another classification on the basis of driving force that promotes service innovation: "(1) reliance on external innovation ('supplier dominated' innovation), (2) degree of interaction with consumer ('client-led' innovation), (3) intensity of in-house innovation (innovation in services) and (4) extent to which service firms support other firms to innovate (innovation through services)".

Based on the distinction among modes or patterns of service innovation, Sundbo and Gallouj (2001) summarized the following seven categories: "(1) the Classic R&D Pattern (developed through dedicated R&D departments), (2) the Services Professional Pattern (based on service professionals), (3) the Neo-Industrial Pattern (a hybrid between the classic R&D pattern and the service professional pattern), (4) the Organized Strategic Innovation Pattern (driven through by ad hoc, cross-functional teams), (5) the Entrepreneurial Pattern (based on alternative technologies and/or business models to established businesses), (6) the Artisanal Pattern (small scale, through regulation or new technologies), (7) the Network Pattern (based on a network of firms acting together)".

Other ways to classify service innovation also exist, for example, according to industry sectors where innovation happens, or to refine/merger existing categories, etc.

- **Service innovation process**
From the above analysis of service innovation classification, it could be concluded that the innovative activities within service could occur in various levels and areas. As a result, the service innovation processes also vary in different situations with more or less operant and operand resources. However, there are still common elements and steps exist in all or most service innovative activities, as some scholars suggested.

Focused on designed-in quality, key concepts and a frame of reference were presented in one of Edvardsson’s articles (1997), where he proposed an integrated model of service development. This integrated model comprises three concepts as prerequisites of service development process: the service concept, the service process, the service system and resource structure. The service process in this model could be further divided into four phases: the idea phase, the project formation phase, the design phase and the implementation phase.

![An integrated model of service development from the perspective of the service company](image)

*Figure 2-1. “An integrated model of service development from the perspective of the service company” Edvardsson (1997)*

The process of service production in this model mainly involves customer, company and...
subcontractors as actors. As an organic whole, in order to create the best prerequisites for the service to control the process of service development, Edvardsson (1997) suggested “service development must coordinate the development of concept, process and system where each aspect requires special treatment.”

The model above shows a clear customer centered perspective in Service-Dominant Logic, where value is co-created by customers, and companies provide prerequisites to help customers to create, experience and evaluate services.

When launching service innovation, it is always crucial to take customers’ function into account. Edvardsson, Gustafsson, Kristensson and Witell (2008) discussed why, how and when to integrate customers into the process of service innovation from their research carried out at the CTF (Service Research Center) of Karlstad University.
Chapter 3 Corporation description

In this chapter, I am going to introduce the company where I served my internship when writing this thesis, and the main product of this company.

3.1 Introduction to InfoQuest

InfoQuest Group AB is a company that specializes in the IT segment bringing its customers and partners innovative solutions. The company supplies an array of services for the hotel industry, and brings its customers and partners that utilize their services into the forefront of the future. Although still at its start-up phase, InfoQuest positions itself as an international group company with a high degree of confidence. It has recently expanded on a global scale to provide services to hotels in Norway, Dubai, Pakistan, and Belgium.

To guarantee the high quality of the services, InfoQuest deliberately chooses reputable partners including Cisco Systems for networking, Swyx GmbH for Hosted IP-PBX solutions, YIT for technical installations, Microsoft Corporation for server and collaboration solutions, Hafslund for communication and cable infrastructure and HP for hardware solutions.

The headquarters of InfoQuest is at Karlstad, Sweden, with offices located in Norway, Pakistan, and soon in France.

3.2 Introduction to SaberKnot

SaberKnot is InfoQuest’s flagship product that it brings to the market, which is supposed to encompass premium hotels all over the world. It works on centralizing every aspect of hotel services for the hotel guests using the system. The key concept of centralization stems from the aspect that the guests staying in the hotel are there for leisure and services should be brought to them at their command. Designed on a user-friendly interface, the thin client with a flat panel LCD, keyboard and mouse, and unobtrusively placed within the hotel room, users of the system can readily achieve an all-included blend of services:

1. Interactive hotel services
2. Online concierge
3. Mobile office and printer
4. Online city and transport information
5. Online restaurant and shop recommendation
6. Local news and activities
7. VoIP telephone
8. Digital Video-On-Demand
9. Interactive Maps
10. And many more…

The figure below shows how the interface of SaberKnot looks like.

Figure 3-1: An example scene of SaberKnot

Boasting such amenities on an interface that is easy to use and quick to get acquainted with, the company’s goal is to redefine the meaning of in-room services for hotel industry with the
advantage of SaberKnot. "Apart from all the information about the hotel and city, the guest will soon discover the possibilities at hand, including Video-On-Demand, wake-up calls, express check-out, room service, in-room temperature control, concierge services" all from a screen the size of TV (InfoQuest).

Not only can the user have access to such information, the interface can be personalized and saved, so when the guest lodges at another hotel that uses the SaberKnot interface, personalized settings can be recalled giving the user a much more pleasurable experience. The company also boasts a learning interface that actually learns what the hotel guest likes, and suggests any pertinent activities that fall in line with the topic of interest.

3.2.1 Technical principles

A well designed network can help a company to provide high quality service and at the same time to save cost. This part will briefly introduce InfoQuest’s network structure, customer’s network connection and how the data traffic flows.

- Global network structure

Taking into account the current needs and the long term object, InfoQuest adopts a progressive strategy to build a redundant network across Europe with Spoke and Wheel structure and Point-Multipoint technology.

As a part of its global strategy, InfoQuest is going to build several local centers in Europe to provide services. According to the network structure, every local InfoQuest center is connected with at least two other local centers via VPN, and each local InfoQuest center should have at least dual routers with fail-over capabilities to guarantee its stability. Hotels are connected to the InfoQuest local server in same country or nearby country via single router or more preferable two routers with fail-over capabilities. The future European network of InfoQuest looks as figure 3-2:
From the figure above we can see in Europe there will be 14 local centers in total: Karlstad, Oslo, Helsinki, Reykjavik, Copenhagen, Dublin, London, Brussels, Berlin, Vienna, Zurich, Toulouse, Rome, and Madrid. Besides, in order to operate business in Asia, currently the local centers in Dubai and Islamabad connect to the company’s network via rented submarine optical fiber cable through Mediterranean Sea.

- **Network in Karlstad office**

Karlstad office is the headquarters of InfoQuest Group AB, and is one most important data center for the company. The network at Karlstad consists of two parts, office network and data
farm network, connected together via a VLAN structure.

The data farm network is the main section to provide various services to customers, consisting of servers, routers, silverback and backup units. There are also UPS units to ensure that the devices are running during a power failure and can be shutdown in a safe way. Each router of one backup pair chooses an ISP to connect from two candidates, thus maximizing internet uptime in the event of an ISP failure.

- **VPN structure**

While the star network is less failure-resistant than its counterparts, compared to other networks such as mesh or tree, the star network is both easier to set-up and maintain. Thus InfoQuest adopted a virtual star VPN network, which means all VPN channels are pointed to a data center. InfoQuest provides two independent lines out to the internet. The lines are used one at a time with the line can automatically switch over to another. By the structure of two VPN lines from a selective customer connecting to one data centers, if one VPN line goes down all the traffic will still work via the other VPN line. Figure 3-3 shows an example of how customers network connect to data centers.

![Figure 3-3: InfoQuest customer network (internal document)](image-url)
• **Data traffics and streams**

The InfoQuest local center acts either as pass through station or as an end station for voice streaming and data depending on where the traffic goes. The servers here receive the newer version of SaberKnot content and push the newer content to other servers in other InfoQuest local centers to replace the older one. All SaberKnot assets originate from the InfoQuest headquarters. No Live Streaming is done here due to bandwidth restrictions.

![Diagram of data traffics and streams](image)

Figure 3.4: The traffic from/to and within InfoQuest (internal document)

The SaberKnot assets are stored locally at the hotel. Data and Voice stream goes in and out of the hotel, the VoD, however, is split into two data transports. From outside the VoD content is sent to the VoD server in hotel as files. Inside the server streams the VoD content to users via the open standard protocol h.264. The Live Video server receives the streams from the local Live TV service provider. Both VoD and Live video should be able to offer HD and/or SD quality video.
3.2.2 Commercial principles

As an integrated IT services system with several patents (one granted and four pending), SaberKnot delivers unique products and services into the hotel industry. However, instead of technique, the new business model is the most exciting aspect of the SaberKnot vision, the compounding nature of the advertising revenue. It brings services to the hotel industry that were typically fee-based and turns them to an advertisement-paid model, saving both the guest and the hotel substantial sums. With SaberKnot being installed in premium hotels around the globe, a new business market is introducing itself.

As we have mentioned, the SaberKnot platform itself is installed at the hotels providing adjunct services such as Internet access, VoIP and AoD, but only minor contributors to its income. InfoQuest’s focus is on the service and advertisement business, as its income will depend greatly on advertisement revenues. Once a hotel is provisioned and the advertising slots are filled there is minimal expense to maintaining the product but the revenue continues month after month and year after year.
SaberKnot introduces a revolutionary solution for communication and entertainment services for hotels and their guests, by which it can increase advertisers' business and revenues. The advertiser here might be an institution or an agency. The difference is single ad for an institution and larger scale resale contracts for an agency. Working exclusively with a premium segment in the hotel industry, SaberKnot offers one of the strongest target groups in the world: leisure and business travelers with great purchasing power. In cooperation with hotel partners it is able to provide advertisers with extremely pinpointed data regarding the person actually using and viewing advertisements. The only thing secret is the guest's name and home address, but advertisers can find out the exact age, gender and nationality.

InfoQuest typically sees the relationship with a hotel as strategic alliance, instead of one as a customer and supplier. In each case, they in turn point it to potential advertisement partners it can approach in order to acquire potential customers. InfoQuest has thus far developed one such partnership in Brussels, two in Dubai and one pending that would include Germany, Austria, Switzerland and Italy. Currently the distribution strategy for advertisement is to partner with local ad bureaus until InfoQuest has developed sufficient market strength to procure advertisement by itself.

The excitement is not limited to advertising. E-commerce is an exciting future component of the SaberKnot vision. Hotel guests will be able to interface with local shops and make purchases which can be delivered to the hotel and possibly billed to the room. InfoQuest will receive a fee for bringing the business to the local shop. The guest will appreciate the convenience of shopping without having to leave the room. This is particularly valuable for the busy traveler.
Chapter 4 Service innovation in hotel industry

While the last chapter provides an introduction of InfoQuest and its flagship product SaberKnot, this chapter is devoted to analyzing how InfoQuest innovates the service in hotel industry, what new roles the participants (hotels, customers, local businesses and IT system provider) play in this scenario and why the innovation can benefit all participants. In addition, attention is also paid to some potential problems in the innovation.

4.1 Roles redefinition

To simplify our case, the participants analyzed include hotel(s), IT system provider(s), local business(es) (restaurant, shop, pub, etc.) and customer(s). Besides, all the participants are indefinite except the IT system provider that only refers to InfoQuest here.

The traditional business model played by these participants can be conceptualized as a linear model. An IT system provider offers IT system solutions to various hotels, and usually also takes the responsibility of devices’ maintenance and technical support. With the in-room IT system, a hotel may ask its customers pay not only for lodging, but also for the IT services, such as Internet access, IP telephone and Video-On-Demand. When checking in at hotels, customers usually do not stay in hotel rooms all along, but in most cases also patronize local business around the hotel. This linear model tells a basic truth, after submitting product to hotels, the IT system provider does not have direct contact with customers, and hotels do not necessarily work in association with local businesses.

From the figure above, we can see that each participant plays a role of a supplier or a consumer in this supply chain. The biggest advantage of this model rests on the clear boundary of responsibility between different participants. For example, when a customer has a problem on using in-room IT services, he informs the hotel of what is ongoing. Subsequently, the hotel transmits the fault report to the IT system provider, who is responsible to solve the problem. In this case, the hotel may choose not to tell the IT system provider if the fault is not
critical enough, and the customer cannot directly complain to the IT system provider about the IT service breakdown.

From the perspective of customers, however, there are also some disadvantages in the linear model. To illustrate this we can build a scenario: after one day’s tour, a customer wants a delicious dinner after a comfortable massage, and possibly goes to a pub afterwards if in the mood. The problem is that it is not the city that he is familiar with so that he does not know the right places that can exactly cater for his taste. However, it is not necessarily part of the hotel employees’ duty to introduce local business to this customer. On the other hand, the customer cannot rely on their recommendations that may not always fit his interest. As a result, a customer has to explore the local business by himself in this linear model.

By contrast, in the model built by InfoQuest, each participant doesn’t purely play a role as a supplier or a consumer. Instead, they interact with each other in a netlike model. By redefining the participants’ roles and building up connections that did not ever existed among them, this netlike model shows us a service innovation in hotel industry. Besides offering products to hotels, the IT system provider provides useful information to customers and recommends to them local business according to their taste, while making profit from advertisement. The hotel and local businesses in this model share the same target market, which is the inherent connection between them and the footstone of this new model.

![Figure 4.2 InfoQuest netlike business model -1](image)

In the above model, from the point of view of the hotel, the IT system provider offers IT solution and technical support; from customers’ perspective, the IT system provider is an information center and it may supply better service based on customers’ personal profiles; with regard to local businesses, the IT system provider is an advertising agency who advertises their
products to spot a niche in the market. As a client of the IT system provider, a hotel also naturally plays a dual role of lodging service provider and local businesses' collaborator in this case. To sum up, the netlike business model may be considered as a combination of several traditional business models into a new context, whilst each participant plays a multi-role.

4.2 Value co-creation

According to the conventional view of value chain, value is produced in such a way that a company adds value to the offering provided by an upstream company and then passes it to a downstream company or a final consumer. In the value chain, the main relationship is an asymmetric supplier-consumer system. However, this idea from the Industrial Age cannot be adapted to the current economic activities in a volatile competitive environment.

Evolving from value chain to value network or constellation or other similar terms, scholars have gradually shifted their focus from goods to service, from isolated products to integrated solutions, and realized that value should be created by many actors in interactive patterns where customers always play a crucial role during the process. An elaborate research of the value co-production can be found in Rafael Ramirez (1999).

- Network perspective

In the book 'Developing Relationships in Business Networks', Håkansson and Snehota (1995) explained their network theory in business marketing. They pointed out a fact that “any business enterprise, no matter how small it is, has to maintain relations with several other actors and some other relationships concur in the development of a certain relationship”. Although “there is perhaps no such thing as a ‘typical’ relationship, they are a variable; each tends to be unique in some respect”, business relationships could be classified “in terms of activity links, resource ties and actor bonds” (Håkansson and Snehota, 1995).

As far as InfoQuest is concerned, the simplified netlike business model can be regarded as a small business network. Håkansson and Ford (2002) considered a network as “a structure where a number of nodes are related to each other by specific threads”. In our case the nodes are customers, IT system provider, hotels and local businesses, and the threads are relationships among them. “Relationships have many features related to how they can be used in networking activities. Some of these are already in use while others are ‘dormant’, waiting to
be found” (Håkansson and Waluszewski, 2002). The relationships already embodied here include IT system provider – hotel relationship, hotel – guest relationship and guest – local business relationship. The most important “dormant” relationship in our case lies in the fact that hotels and some local businesses share same customers, which is found and exploited by InfoQuest. In order to activate the “dormant” relationship, InfoQuest, the IT system provider, performs multiple roles with hotels, guests and local businesses in the context of hotel industry, or tourism industry. Håkansson and Snehota (2006) argued that “the organization exists and performs in a context rather than in an environment, in as much as it has a meaning and a role only in relation to a number of interrelated actors.” Not only IT system provider, but also all other actors in this context play more roles with each other than they did before, and some other “dormant” relationships are also activated in this case. For example, hotels and local businesses were connected to some extent before hotels “rent” a platform to local businesses to advertise themselves. The process requires the aid of IT system provider, and furthermore another “dormant” relationship between IT system provider and local businesses is stimulated. In order to provide better customer experience, the IT system provider will also interact with hotel guests directly in this business network, providing useful information to them, solving troubles they meet, and managing users’ accounts, etc.

The network perspective from Håkansson and Snehota (2006) emphasizes “through their relationship either party can gain access to the other’s resources. To some degree actors can therefore mobilize and use resources controlled by other actors in the network.” It is quite right in this case. Through relationships in the network, the IT system provider “borrows” hotels’ rooms to serve local businesses that in turn make use of SaberKnot in hotels as a platform to attract their target customers.

- **Value constellation perspective**

Normann and Ramirez (1993) stated that in the value constellation system “strategy is no longer a matter of positioning a fixed set of activities along a value chain. Increasingly, successful companies do not just add value, they reinvent it. Their focus of strategic analysis is not the company or even the industry but the value-creating system itself, within which different economic actors--suppliers, business partners, allies, customers--work together to co-produce value. Their key strategic task is the reconfiguration of roles and relationships among this
constellation of actors in order to mobilise the creation of value in new forms and by new players. And their underlying strategic goal is to create an ever-improving fit between competencies and customers.”

Similar to network perspective, value constellation perspective also advocates that successful economic activities are achieved by different actors’ interaction. However, the later emphasizes more on value co-production with customers, suppliers and partners. According to value constellation perspective, a company should no longer position itself as a part of value chain to add value to the product, but try to co-produce value with other actors in innovative ways by reconfiguring roles and relationships among the value constellation.

“Companies create value when they make not only their offerings more intelligent but their customers (and suppliers) more intelligent as well. To do this, companies must continuously reassess and redesign their competencies and relationships in order to keep their value-creating systems malleable, fresh, and responsive.” (Normann and Ramirez, 1993)

InfoQuest, as an IT system provider, makes its offering – SaberKnot – more intelligent; at the same time, it improves its customers’ and partners’ abilities to build a new value co-creating system together. Customers, the hotels guests in our case, are the most important actors whose creativity is mobilized firstly by InfoQuest. The attractive functions and convenient information makes customers to be ready to explore information in SaberKnot and spend more time on using it. While the customers are satisfied, the other actors make profits. Hotels in this case occupy the center position in terms of where most activities occur. Hotels co-create value by lodging guests and providing space to other actors, the reward for which is improved IT facilities and customer loyalty. Local businesses probably receive the most benefit from redesigning relationships in this value constellation since their advertisements have chance to directly put into their targeted customer group. IT system provider can be seen as the brightest star in this business constellation, because it is its offering that mobilizes other actors to play new roles in the new relationships. How to efficiently utilize this new platform is a task that needs actors collaborate together in order to keep this system competent to bring to both customers and other actors more advantages.

- Service-Dominant Logic perspective

Service-Dominant Logic has been introduced in the second chapter. In addition to many
similar viewpoints with value network and value constellation, Service-Dominant Logic emphasizes customers’ core position and operant resources’ crucial function in value co-creation process.

Vargo and Lusch (2004) argued that “a service-centered view is customer oriented and relational” and (2007) “understanding how the customer uniquely integrates and experiences service-related resources (both private and public) is a source of competitive advantage through innovation.” Furthermore, according to Lusch and Vargo (2006), co-creation occurs not only among company, customer and other parties, the resource integration is also a primary function in the process. They suggested operant resources, especially knowledge and skills, represent the fundamental source of competitive advantage.

![Figure 4.3 Service-dominant marketing (Lusch and Vargo, 2007)](image)

The figure above shows the value co-creation in Service-Dominant Logic. Internal and external resources “including those that might appear to be resistances until they are overcome by and integrated with the organizations’ other resources” (Lusch and Vargo, 2007), are utilized by companies, customers and partners to co-create value.

In our case, if we take InfoQuest as the prime integrator, hotels and local businesses as partners, the internal resources are knowledge and skills or the product SaberKnot, and external resources are rooms in hotels and goods/services of local businesses. However, before making use of those external resources, InfoQuest has to convince its partners that it
can benefit all of them to collaborate with it in its business model. Edvardsson and Enquist (2008) explained this kind of phenomenon as "a major conceptual shift – from an emphasis on output to an emphasis on mutually satisfying interactive processes", on the other hand, Vargo and Lusch implied (2006) "organizations exist to integrate and transform micro-specialized competences into complex services that are demanded in the market place.” In Service-Dominant Logic, it is the operant resources, especially knowledge and skills, make the shift or integration possible. Information technology has brought incredible changes and chances to our life, and is going on. In order to achieve its business scheme, InfoQuest takes advantage of network and software technology to supply services to and interact with other players to co-create value in a new economic network. Although this network is linked with some “new” relationships, customers are still standing at the core position. According to Service-Dominant Logic, “a Service-Centered View is customer oriented and relational”, “the enterprise can only make value propositions” and “value is perceived and determined by the consumer on the basis of ‘value in use’” (Vargo and Lusch, 2004). InfoQuest strives to offer customers better experiences by developing new features in its products, whereby customers can be satisfied with the services and co-create value during the process of using SaberKnot. The purpose of doing this is pointed out by Vargo and Lusch (2007), “providing service co-production opportunities and resources consistent with the customer’s desired level of involvement leads to improved competitive advantage through enhanced customer experience”.

4.3 Competitive advantages
In this section, the netlike business model’s advantages for hotels, customers, local businesses and InfoQuest itself will be discussed. The value co-creation pattern in our case benefits not only individual participants, but also the whole business network and even local economic construction.

- Hotel
From InfoQuest’s company strategy, the recipients for SaberKnot consist of high-end leisure and business travel segment, mainly refers to 4+ star hotels. To win in today’s market, premium hotels need to differentiate themselves by providing services that afford a competitive
advantage. Hotels that are users of SaberKnot express that the platform answers that need and will also satisfy their guests’ needs for enhanced in-room technologies and services. After being equipped with SaberKnot, hotels acquire both high-quality hardware (network devices and terminal devices) and elaborately designed software, along with good service from InfoQuest. As described before, SaberKnot offers a bunch of popular features to in-room services, including online concierge, mobile office, IPTV, VoIP telephone, interactive maps, etc. These services will undoubtedly improve hotel guests’ quality of experience, which in turn will bring hotels more customer loyalty and revenue. Furthermore, when making these hotels more competitive and profitable, InfoQuest, as a partner, takes over the job of IT system maintenance from hotels, so that hotels can focus on their core business and leave those high-tech stuff to the experts. By doing this, hotels can achieve better performance and cost efficiency at the same time.

Another big advantage that hotels can get from InfoQuest’s business model is that hotels and local businesses can share the cost of the IT system installed in hotels’ rooms. The target groups of the hotels and local businesses are sufficiently overlapped. When sharing the cost of the IT system, they can also share customers with each other. However, since their business are not on the same market (obviously restaurant, night club and gift shop won’t compete in lodging service with hotel), there is no risk for hotels to share customers as operant resource with local businesses, who are in fact advertisers so as to rent hotels’ indoor space for marketing. In addition, if guests are satisfied through consuming at the local businesses recommended by SaberKnot, they will probably have better feeling to the hotels.

- Customer

Nowadays customers have been put into more important position than ever before, both in the industry and the academic world. In our case, customers refer to terminal customers, who are guests living in hotels and consumers consuming at local businesses. Customers interact directly with all other participants in the netlike business model, as shown in the following figure, which is a transformation from figure 4.4.
In our case, customers' service experience comes from the collaboration between IT system provider, hotels and local businesses. In addition to the access to conventional lodging services, customers can also have access to another all-included blend of services with a user-friendly interface, when entering into a room equipped with SaberKnot. Some of these services are mainly entertainment (IPTV, Video on Demand, Audio on Demand, photo tools, etc.), while others may afford customers much convenience (Online Concierge, Mobile Office and Printer, Interactive Maps, Online City and Transport Information, VoIP telephone, etc.), where customers can also get recommendations based on their own interests whenever they want to have meal or go shopping or do other activities. With the help of modern technology and skills, all of these features are elaborately designed into SaberKnot as a whole IT service system provided to customers. According to Sandström, Edvardsson, Kristensson and Magnusson (2008), “value creation through service experience should be especially useful in complex services with great potential value and major opportunities for customer participation, e.g. technology-based services”. Therefore, compared to other services, such sophisticated IT system as SaberKnot endows customers with better service co-production prerequisite.

When customers enjoy convenience from the business network, they also enjoy another advantage that it is time-saving to search information by avoiding being submerged in commercial storms. Different from normal TV or leaflet commercial, in this case it is customers that actively search information that they want, instead of being passively put in front of massive information most of which is nevertheless useless.

Last but not the least, most value added services in this case are free for customers, though a few services like IP telephone are still paid. However, it should be noted that it indeed saves
money for customers, because for example calling though IP telephone usually is a cheaper solution. Since the business is evolving, many new features might appear in the future. That means customers can get more and more benefits from this business network without paying more.

- Local business

If we can put local business into the center, it is without doubt that advantages for local business in this model come from interaction with other participants.

![Figure 4.5 InfoQuest netlike business model - 3](image)

Not only customers, but also advertisers can benefit from the escape from commercial storms. It saves local businesses much expense compared with traditional advertising, makes the advertisement well targeted, and at the same time brings customers pleasurable consuming experience.

With the technical help of IT system provider, local business can change marketing strategy easily and accurately in hotel rooms. Similar to hotels, local businesses also escape from IT system maintaining work, which is being taken by the IT system provider now.

Hotels are good partners of local businesses in this case, as we mentioned already that they share customers and the cost of IT system without competing with each other. The hotel rooms with SaberKnot here as the advertisement platform bring local businesses access to target customer group directly, and the host hotels take the responsibility to take care of these rooms, meanwhile they share some cost for the IT system with local businesses, which can be considered as killing two birds with one stone.

- IT system provider

The last participant to be discussed is the IT system provider, or InfoQuest in our case. As the
initiator of this business network, it is quite natural to put the IT system provider into the center.

Through providing its product into hotel industry, IT system provider links separate participants as an organization. From the analysis above it is concluded that all other players in this netlike business model obtain many advantages from the IT system provider who meanwhile also benefits from the network as well.

The interactions with customers contribute to the improvement of IT product. When customers use SaberKnot, they unconsciously perform as co-workers of InfoQuest for the reason that they will report faults they meet in the existing system, propose demands for the new version product, and generate other valuable feedback. The improvement of product will obviously give the company more chance to win against competitors in the field. On the other hand, IT product provider can attract customer loyalty through the process of using-feedback-improvement.

The collaboration with hotels and local businesses not only brings IT system provider profits, but also renders it a vantage point in the market in the long run. The best commercial for InfoQuest is the success of its partners, which is why it declares “with SaberKnot being installed in premium hotels around the globe, a new business market is introducing itself”.

- **Local economic construction**

If we move our attention outside the business network, we will find this service innovation in hotel industry might influence local economic construction to some extent. When customers interact in such a business model, their consuming experiences will unavoidably come from the perspective of the whole business network. In order to keep a long term advantage, IT
system provider, hotels and local businesses have to supervise each other to guarantee all services (including goods) supplied to customers are of good quality. If the local businesses outside the network want to join they have to be “certificated” by existing participants, because everyone in the network will influence all of others. Therefore, companies inside the business network and those outside but having interest to join will strive to enhance their services, which is forced by relationships with other partners. The more success the network achieves, the more it will influence the local economic construction.

4.4 Potential threats

Every coin has two sides. Innovation is confronted with both new opportunities and potential threats. In comparison with a tightly organized team, the netlike business model in this case looks more like a loose industry alliance. After listing advantages from the service innovation in hotel industry, the following paragraphs analyzes potential threats that may come with it.

- Prime player

In the former section, we observed that the same netlike business model can be described by four figures, each of which has a different core player. They are quite different actually. According to Vargo and Lusch (2007), “the value network member that is the prime integrator is in a stronger competitive position”. In our case, no prime “integrator” exists, but it does need a prime or core player who leads members in the network to go forward.

The dominant position makes core player to own more influence in the network, which is the reason why participants contend for it. It is not a big issue if everything goes well in the network, but the threat is how to deal with the faults, if any, emerging in this loosely organized system, which will become crucial. For example, if a shop in the network being complained by customers several times, who should take the responsibility to decide whether to keep the shop any longer for its own-remedy or to kick it out immediately? In addition, other issues following the service innovation include how much power the prime player is supposed to possess, how to supervise the use of power, etc.

Among the four types of participants, customers are not suitable to act as prime player in terms of leading power, although being put at the first important position. It is the IT system provider initiates the service innovation and the business network, and therefore it is natural for the IT
system provider to play the leading role. The main negative factor for IT system provider is that it is less familiar with the local conditions than its local partners. When the business expands to a global scale, it will be hard for IT system provider to react timely to emergency situations happening in countries with various economical and cultural backgrounds. Furthermore, a hotel also has good reasons to stay at the core position in the subnet it belongs, since most activities related to the business network happen there. However, hotels have no strong motive to look for and manage the local businesses that nevertheless pay IT system provider rather than hotels. It is local businesses that share IT system cost with a hotel, however, if the expense exceeds the benefit, the hotel would not like to spend much effort on local businesses’ affairs. The subsequent candidate is a local business. However, in its subnet there is usually more than one local business. It is difficult to decide who should be the leader. Furthermore, if a local business, i.e. a restaurant, has the power to decide who can join its subnet, it will definitely exclude other restaurants at the same area, which inter alia may not support a local business to be the core position.

Unless a good solution come out, the dispute over core position will raise troubles sooner or later. From my point of view, a set of mutually agreeable “rules” within the business network probably can take the position of the core player, which is discussed in detail subsequently.

● **Members control**

When discussing the mutually agreeable “rules”, attention should be paid to member control, which means how to choose qualified candidates entering into the business network, how to guarantee the members to fulfill their duties, and so on. As the initiator, IT system provider doesn’t need to be taken into consideration; customers obviously are always welcome. So the following discussion will mainly focus on the other two type roles, hotel and local business.

In our case, InfoQuest announces that it works exclusively with a premium segment in the hotel industry. More specifically, high-end leisure and business 4+ star hotels. This standard ensures at least: (1) the high quality of service provided by hotels and (2) the source of guests with interest to use SaberKnot and consume at high-class local businesses. For other IT system providers, if they target their market at middle and low class, it will need more effort to filter hotel members into their networks. Once the hotels can’t keep up with the standard, the whole business network loses customers.
As having been mentioned before, the main part of this service innovation is the relationship between hotels and local businesses built by SaberKnot. To achieve success in the new model, InfoQuest considers to share the common target customer group with premium hotels as the first principle of absorbing new network members from local businesses. But high quality services (goods) are not enough in our case. Usually around a 5-star hotel a large amount of local businesses coexist. If taking restaurants as an example, when they can all supply delicious food in hospitable environment, how to decide their membership? At least two issues should be mentioned here: (1) the amount of members and (2) the members’ component ratio. In a hotel centered area, restaurants with similar or different features compete with each other. From restaurants’ perspective, one more similar restaurant in the subnet implies one more competitor to the existing members. From customers’ perspective, they have a demand to choose their dinning place from a proper number of restaurants with different characteristics.

Too small number of alternatives cannot satisfy this demand, and too many options make customers to feel hard to make a final decision. In theory, there should be an appropriate scope for members’ amount or component ratio, by which best customer experience can be perceived and other members in the subnet can make highest profits. The problem is how to find the right scope. We should also take into account individual differences. A “right” scope in one subnet or in one area’s subnets cannot be generalized.

Every member makes service promise when it enters the subnet. But the problem is how to guarantee members to fulfill their promises. Not like a tightly organized team, it is impractical for this business network to send inspectors to its members. Customers’ feedback may suggest whether they get qualified service. But is that too late in terms of error checking?

- Disputes adjudication

In social life, courts resolve disputes on the basis of a variety of laws. In our business model, the question is how to treat those who break the mutually agreeable “rules”. In addition, the “rules” cannot cover everything in the network thoroughly, which renders disputes adjudication harder.

If the IT system provider breaks “rules”, for example that it can’t solve a technical problem in time as it promised, other members in the network may decide to kick it out, and subsequently the network crashes, since there is only one IT system provider in our case. If they want to set
up a new business network, they need a new IT system provider. The position of a hotel in its subnet is also irreplaceable, like IT system provider in the whole business network. Once the hotel’s services cannot meet the standard it is supposed to supply, other members may choose to stop collaborating with it. Subsequently this subnet crashes. Taking into account the unique positions of IT system provider in the network and hotels in their subnets, relative “rules” on them need to be discussed by network members extensively and deeply.

Amounting to the majority in the network, local businesses are engaged in quite different fields, which include restaurants, theaters, museums, theme parks, night clubs, gift shops, etc. When customers begin to complain a local business, it will be the best if one of the “rules” can tell how to handle this situation, or in the alternative members could discuss it and complete their “rules”.

Things could be more complex. For example, after two local businesses joining a subnet, revenue increases considerably in one of them whereas little in another. If those two local businesses pay the same amount of money for advertisement, the one benefiting less will feel unfair and complain about it. To solve this problem, IT system provider may charge local businesses according to the amount of benefit that advertisers gain from its product. However, firstly it is hard or impossible to quantify the impact coming from the IT system, and secondly, the beneficiary will claim that its success comes from its better offering but not from the network, given the same service and resource as their partners. Things can get worse when these two local businesses are competitors.

In another scenario, local businesses pay for advertisement in return for increasing revenue. If they find out there is no noticeable revenue increase after entering the network, they probably will not pay for advertisement anymore. Or, the membership of the network really contributes greatly to revenue at the first several months, and for some reason, it does not later. This local business perhaps will ask IT system provider what the reason is, which is nevertheless unexplainable in most cases, as many other affairs in the world. But, in such a context, the local business will tend to attribute the loss to any change in the network, especially a competitor’s entrance.

- **Copyists competition**

According to Sundbo and Gallouj (2001), InfoQuest’s business model belongs to the
innovation of “the Neo-Industrial Pattern (a hybrid between the classic R&D pattern and the service professional pattern)”, or “the Network Pattern (based on a network of firms acting together)”.

As a matter of fact, recently many similar service innovations have emerged with the help of IT technology.

The most famous example should be “Google”, which supplies the public with Internet search engine, e-mail, online mapping, social networking, video sharing services, etc. In the last few years, Google has been trying in many ways to adapt its business model. However, Google Annual Report (Feb. 15, 2008) shows that its 99% income derived from advertisement, as its traditional advantage. If comparing the idea of Google with InfoQuest, we can conclude that they both supply customers with certain free services, whereby attract them to click advertisements, the income source of these companies. The difference between them is that Google targets its customer group at the public while InfoQuet targets its customer group at the premium hotel’s guests. So to some extent InfoQuest could be considered as a mini version of Google.

In this market economy society, we have enough reasons to guess that once InfoQuest succeeds in hotel industry, copyists will emerge everywhere to compete with it. InfoQuest has been trying to protect its product by applying for several patents, but it is hard or impossible to prevent competitors with similar business models coming into this market. They can employ different skills to supply similar products, which is not so difficult for IT experts. If copyists position their market at low and medium-grade hotels, they would not bother InfoQuest much. But if they want to share the premium hotel market, how should InfoQuest fight against these competitors?

To illustrate competition strategy, let’s take Google as an example again. After Google’s huge success, many other search-engine vendors rushed into the market trying to copy Google’s successful model. Nevertheless, most of them failed at the initiation phase. Among all the factors contributing to eventual failure, as far as I can see, one of the most important might be attributed to Google’s first mover advantage. When the first mover dominates the market, the followers usually will be stifled in the cradle. It is worth mentioning that some copyists really succeed by imitating Google, e.g. Baidu, the most popular Internet search-engine vendor in China. This company focuses on China market, offering better customer’s experience for
Chinese user, to compete with the global overlord, Google.

From the example above, IT system provider in our business model can learn at least two experiences. The first is to come into the market and stand at the dominant position as soon as possible. The second is to aim at a specific market segment supplying differentiated services.

- **Current fund**

Another potential threat in this business model comes from fund turnover period, which may lead to lack of current fund. The fact that SaberKnot demands little payment from hotels, though a big advantage to compete in the market, could also become a big threat to IT system providers, which invests huge amount on network devices and in-room devices and nevertheless cannot receive sufficient profit in a short time. As we have known, in the case of InfoQuest, most of its income will be paid monthly by local businesses for their advertisements in SaberKnot. There is no problem in a long run, but again, the long current fund turnover period may put IT system provider into a terrible situation, especially at the business start-up phase.
Chapter 5 Market opportunity analysis in China

Currently, China is the third biggest country in terms of GDP and the biggest developing country in the world, with a population of more than 1.3 billion. In the last several decades, China, with an average annual GDP growth rate above 10%, has been one of the fastest economy growing nations. Its remarkable growth has impacted significantly on the global economy. The following form shows the annual GDP growth rate from 2000 to 2007, from National Bureau of Statistics of China. Due to the global economic crisis, the global GDP is expected to grow at an annual rate of 0.5-1% in 2009, but China’s annual growth rate is forecasted to be more than 8%.

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<td>2007</td>
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</tbody>
</table>

Table 5.1 China’s annual GDP growth rate from 2000 to 2007

In this chapter, we are going to examine market opportunity of the service innovation in hotel industry in China.

5.1 China market introduction

- The tourism and hotel industry situation

Before 1979, the year of reforming and opening policy, essentially no tourism industry was in China, and hotels were very few there. From then on China’s tourism and hotel industry has developed rapidly in the past 30 years, especially in the last ten years. The statistics below are quoted from National Tourism Administration of the People’s Republic of China (CNTA).
In 2000, the number of inbound visits was 31,123,500, including 14,679,900 from foreign countries, 11,282,600 from Hong Kong and Macau, 5,161,000 from Taiwan. The top ten provinces/autonomous regions/ municipalities in terms of number of foreign visits are Beijing (2,379,600), Guangdong (2,128,500), Shanghai (1,489,000), Jiangsu (981,500), Yunnan (665,900), Zhejiang (647,500), Shanxi (584,000), Guangxi (508,000), Heilongjiang (504,700), Liaoning (500,500). The total international tourism (foreign exchange) revenue in 2000 was US$ 16.231 billion, and the top ten provinces/autonomous regions/ municipalities in terms of international tourism (foreign exchange) revenue are Guangdong (US$ 411.221 million), Beijing (US$ 276.8 million), Shanghai (US$ 161.267 million), Fujian (US$ 89.382 million), Jiangsu (US$ 72.384 million), Zhejiang (US$ 51.397 million), Liaoning (US$ 38.265 million), Yunnan (US$ 33.9 million), Shandong (US$ 31.513 million), Guangxi (US$ 30.661 million).

In 2007, the number of inbound visits reached 131,873,300, including 26,109,700 from foreign countries, 77,948,900 from Hong Kong, 23,186,800 from Macau, and 4,627,900 from Taiwan. The number of inbound overnight travelers reached 54,719,800, including 21,398,900 from foreign countries, 29,299,700 from Hong Kong and Macau, and 4,021,200 from Taiwan. The international tourism (foreign exchange) revenue in 2007 reached US$ 41.919 billion. In the same year, the number of domestic visits in China reached 1.61 billion, and the domestic tourism revenue reached RMB 777.062 billion, 15.5% and 24.7% more than last year respectively. During 2007, the total tourism revenue of China was RMB 1,095.7 billion, increased 22.6% over last year. The form below shows receipts and visits of the top 36 international tourism cities in China, 2007.

<table>
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<td>Growth</td>
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<td>(%)</td>
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<td></td>
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<td>Visits</td>
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<td></td>
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<td>Growth</td>
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<tr>
<td></td>
<td></td>
<td>(%)</td>
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<td>5</td>
<td>Hangzhou</td>
<td>1126.65</td>
<td>2086</td>
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<td>889.16</td>
<td>1612</td>
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<td>Nanjing</td>
<td>807.64</td>
<td>1161</td>
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<td>Ningbo</td>
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<td>689</td>
</tr>
<tr>
<td>18</td>
<td>Wuxi</td>
<td>362.49</td>
<td>695</td>
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- 38 -
<table>
<thead>
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<th>Inbound Visits</th>
</tr>
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<td></td>
<td>Receipts (US$1,000,000)</td>
<td>Growth  (%)</td>
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<td>247.28</td>
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<tr>
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<td>Beijing</td>
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<td>13.7</td>
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<td>Tianjin</td>
<td>778.71</td>
<td>24.4</td>
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<tr>
<td>33</td>
<td>Qinhuangdao</td>
<td>130.73</td>
<td>25.6</td>
</tr>
<tr>
<td>3</td>
<td>Guangzhou</td>
<td>3191.47</td>
<td>14.1</td>
</tr>
<tr>
<td>4</td>
<td>Shenzhen</td>
<td>2623.28</td>
<td>15.8</td>
</tr>
<tr>
<td>6</td>
<td>Zhuhai</td>
<td>902.4</td>
<td>3.3</td>
</tr>
<tr>
<td>28</td>
<td>Zhongshan</td>
<td>216.78</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Xiamen</td>
<td>718.8</td>
<td>21.7</td>
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<tr>
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<td>Qingdao</td>
<td>675.07</td>
<td>24.4</td>
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<td>Fuzhou</td>
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<td>13</td>
<td>Dalian</td>
<td>581.25</td>
<td>25</td>
</tr>
<tr>
<td>14</td>
<td>Xi'an</td>
<td>543</td>
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<td>15</td>
<td>Quanzhou</td>
<td>493.98</td>
<td>15.2</td>
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<td>17</td>
<td>Chongqing</td>
<td>382.31</td>
<td>23.8</td>
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<tr>
<td>19</td>
<td>Guilin</td>
<td>360.06</td>
<td>36.9</td>
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<td>Changsha</td>
<td>304.4</td>
<td>26.6</td>
</tr>
<tr>
<td>21</td>
<td>Shenyang</td>
<td>289.93</td>
<td>25.2</td>
</tr>
<tr>
<td>22</td>
<td>Chengdu</td>
<td>261.42</td>
<td>29.5</td>
</tr>
<tr>
<td>24</td>
<td>Sanya</td>
<td>244.08</td>
<td>43</td>
</tr>
<tr>
<td>25</td>
<td>Yantai</td>
<td>229.5</td>
<td>38.3</td>
</tr>
<tr>
<td>26</td>
<td>Wuhan</td>
<td>228.28</td>
<td>17.2</td>
</tr>
<tr>
<td>27</td>
<td>Zhangzhou</td>
<td>224.69</td>
<td>148.9</td>
</tr>
<tr>
<td>29</td>
<td>Kunming</td>
<td>207.84</td>
<td>9.5</td>
</tr>
<tr>
<td>30</td>
<td>Huangshan</td>
<td>175.07</td>
<td>60.3</td>
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<td>31</td>
<td>Harbin</td>
<td>153.16</td>
<td>14.8</td>
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<tr>
<td>32</td>
<td>Wenzhou</td>
<td>140.83</td>
<td>28.9</td>
</tr>
<tr>
<td>34</td>
<td>Weihai</td>
<td>124.47</td>
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<tr>
<td>35</td>
<td>Zhengzhou</td>
<td>108.84</td>
<td>4.6</td>
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<tr>
<td>36</td>
<td>Urumchi</td>
<td>105.87</td>
<td>20.8</td>
</tr>
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</table>

Table 5.2 Receipts and visits of the top 36 international tourism cities in China, 2007
Foreigners visit China for different reasons. According to statistics of CNTA, most foreigners come to China for meetings or business, leisure or sightseeing, visiting relatives or friends, etc. The following form divides foreign visitors by their purposes, in the year of 2008.

<table>
<thead>
<tr>
<th>NATIONALITY</th>
<th>TOTAL</th>
<th>MEETINGS/BUSINESS</th>
<th>SIGHTSEEING/LEISURE</th>
<th>VISITING RELATIVES &amp; FRIENDS</th>
<th>WORKER &amp; CREW</th>
<th>OTHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
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<td>5 677 694</td>
<td>12 039 585</td>
<td>67 910</td>
<td>2 431 908</td>
<td>4 108 240</td>
</tr>
<tr>
<td>ASIA</td>
<td>14 561 714</td>
<td>3 239 586</td>
<td>6 372 280</td>
<td>62 221</td>
<td>1 633 431</td>
<td>3 254 196</td>
</tr>
<tr>
<td>JAPAN</td>
<td>3 446 117</td>
<td>885 752</td>
<td>1 188 371</td>
<td>30 337</td>
<td>156 058</td>
<td>1 185 599</td>
</tr>
<tr>
<td>KOREA</td>
<td>3 960 392</td>
<td>1 132 588</td>
<td>2 109 263</td>
<td>5 341</td>
<td>319 893</td>
<td>393 307</td>
</tr>
<tr>
<td>KOREA,D.P.REP.</td>
<td>101 824</td>
<td>18 266</td>
<td>4 869</td>
<td>685</td>
<td>46 811</td>
<td>31 193</td>
</tr>
<tr>
<td>MONGOLIA</td>
<td>705 270</td>
<td>40 923</td>
<td>34 293</td>
<td>445</td>
<td>37 667</td>
<td>591 942</td>
</tr>
<tr>
<td>PHILIPPINES</td>
<td>795 255</td>
<td>45 256</td>
<td>248 020</td>
<td>613</td>
<td>438 898</td>
<td>62 468</td>
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<tr>
<td>THAILAND</td>
<td>554 275</td>
<td>25 784</td>
<td>443 775</td>
<td>240</td>
<td>57 318</td>
<td>27 158</td>
</tr>
<tr>
<td>SINGAPORE</td>
<td>875 826</td>
<td>124 600</td>
<td>404 918</td>
<td>22 059</td>
<td>53 578</td>
<td>270 671</td>
</tr>
<tr>
<td>INDONESIA</td>
<td>426 251</td>
<td>19 841</td>
<td>314 032</td>
<td>286</td>
<td>69 578</td>
<td>22 514</td>
</tr>
<tr>
<td>MALAYSIA</td>
<td>1 040 494</td>
<td>204 131</td>
<td>703 821</td>
<td>713</td>
<td>65 069</td>
<td>66 760</td>
</tr>
<tr>
<td>PAKISTAN</td>
<td>72 854</td>
<td>26 352</td>
<td>27 180</td>
<td>57</td>
<td>6 818</td>
<td>12 447</td>
</tr>
<tr>
<td>INDIA</td>
<td>436 625</td>
<td>128 350</td>
<td>155 252</td>
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<td>93 220</td>
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<tr>
<td>NEPAL</td>
<td>21 726</td>
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<td>3 944</td>
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<td>SRI LANKA</td>
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<td>9 483</td>
<td>2 608</td>
<td>2</td>
<td>10 352</td>
<td>1 915</td>
</tr>
<tr>
<td>KAZAKHISTAN</td>
<td>300 732</td>
<td>33 070</td>
<td>168 484</td>
<td>11</td>
<td>66 923</td>
<td>32 244</td>
</tr>
<tr>
<td>KYRGYZSTAN</td>
<td>43 493</td>
<td>13 791</td>
<td>16 103</td>
<td>4</td>
<td>11 827</td>
<td>1 768</td>
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<tr>
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<td>529 564</td>
<td>540 976</td>
<td>925</td>
<td>193 842</td>
<td>490 913</td>
</tr>
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<td>655 577</td>
<td>1 510 989</td>
<td>2 430</td>
<td>121 333</td>
<td>291 581</td>
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<tr>
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<td>497 966</td>
<td>1 011 232</td>
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<td>82 716</td>
<td>192 992</td>
</tr>
<tr>
<td>CANADA</td>
<td>534 712</td>
<td>96 583</td>
<td>346 810</td>
<td>617</td>
<td>21 031</td>
<td>69 671</td>
</tr>
<tr>
<td>MEXICO</td>
<td>48 920</td>
<td>8 267</td>
<td>34 436</td>
<td>28</td>
<td>1 757</td>
<td>4 432</td>
</tr>
<tr>
<td>OTHERS</td>
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<td>52 761</td>
<td>118 511</td>
<td>243</td>
<td>15 829</td>
<td>24 486</td>
</tr>
<tr>
<td>EUROPE</td>
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<td>1 491 317</td>
<td>3 554 335</td>
<td>2 284</td>
<td>610 741</td>
<td>453 976</td>
</tr>
<tr>
<td>U.K.</td>
<td>551 523</td>
<td>185 922</td>
<td>264 679</td>
<td>412</td>
<td>30 337</td>
<td>70 173</td>
</tr>
<tr>
<td>GERMANY</td>
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<td>199 173</td>
<td>211 710</td>
<td>381</td>
<td>45 459</td>
<td>72 135</td>
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<td>100 350</td>
<td>231 308</td>
<td>491</td>
<td>30 593</td>
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<td>131</td>
<td>9 183</td>
<td>20 758</td>
</tr>
<tr>
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<td>611 004</td>
<td>2 127 136</td>
<td>151</td>
<td>303 348</td>
<td>81 776</td>
</tr>
<tr>
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<td>22 166</td>
<td>29 309</td>
<td>35</td>
<td>3 809</td>
<td>8 093</td>
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<td>SWEDEN</td>
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<td>32 782</td>
<td>74 872</td>
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<td>22 485</td>
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<td>101</td>
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<td>20 193</td>
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<td>14 757</td>
<td>25 264</td>
<td>28</td>
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<td>7 440</td>
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</table>
Along with the rapid growth of tourism, hotel industry in China has been also experiencing a high speed development, especially in the past ten years. By 2000, there were 117 five-star hotels in China, 29% among which were located at Beijing and Shanghai, the two biggest cities in China. This percentage decreased to 25% in 2005. At the end of 2006, there were 12751 star hotels, among which 302 hotels were five-star, 35 more than last year. At the end of May in 2007, the number of five-star hotels was 324, and the number of four-star hotels was more than 1400. In 2007, about 65 new five-star hotels were set up, and the total number of star hotels reached 13583, 832 more than last year. In 2008, the Beijing Olympic Game year, about 331 new star hotels opened, among which 97 hotels are five-star. The following form shows number of star hotels in China in the past few years.

<table>
<thead>
<tr>
<th>NATIONALITY</th>
<th>TOTAL</th>
<th>MEETINGS/ BUSINESS</th>
<th>SIGHTSEEING/ LEISURE</th>
<th>VISITING RELATIVES &amp; FRIENDS</th>
<th>WORKER &amp; CREW</th>
<th>OTHERS</th>
</tr>
</thead>
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<tr>
<td>AUSTRIA</td>
<td>56 273</td>
<td>19 710</td>
<td>24 279</td>
<td>39</td>
<td>5 705</td>
<td>6 540</td>
</tr>
<tr>
<td>BELGIUM</td>
<td>61 398</td>
<td>16 079</td>
<td>34 592</td>
<td>51</td>
<td>2 905</td>
<td>7 771</td>
</tr>
<tr>
<td>SPAIN</td>
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<td>32 482</td>
<td>68 156</td>
<td>61</td>
<td>1 485</td>
<td>10 040</td>
</tr>
<tr>
<td>PORTUGAL</td>
<td>43 917</td>
<td>6 095</td>
<td>31 913</td>
<td>11</td>
<td>3 011</td>
<td>2 887</td>
</tr>
<tr>
<td>OTHERS</td>
<td>579 278</td>
<td>138 499</td>
<td>235 215</td>
<td>294</td>
<td>148 810</td>
<td>56 460</td>
</tr>
<tr>
<td>OCEANIA</td>
<td>688 723</td>
<td>140 097</td>
<td>428 218</td>
<td>777</td>
<td>40 076</td>
<td>79 555</td>
</tr>
<tr>
<td>AUSTRALIA</td>
<td>571 534</td>
<td>118 055</td>
<td>360 885</td>
<td>615</td>
<td>29 876</td>
<td>62 103</td>
</tr>
<tr>
<td>NEW ZEALAND</td>
<td>105 184</td>
<td>19 886</td>
<td>63 185</td>
<td>154</td>
<td>5 568</td>
<td>16 391</td>
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<tr>
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<td>2 156</td>
<td>4 148</td>
<td>8</td>
<td>4 632</td>
<td>1 061</td>
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<td>150 771</td>
<td>173 116</td>
<td>153</td>
<td>26 304</td>
<td>28 057</td>
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<td>346</td>
<td>647</td>
<td>45</td>
<td>23</td>
<td>875</td>
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Table 5.3 Divide foreign visitors by their purposes, 2008

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<tr>
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</tr>
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<td>5-star</td>
<td>129</td>
<td>175</td>
<td>198</td>
<td>242</td>
<td>302</td>
<td>369</td>
</tr>
<tr>
<td>4-star</td>
<td>441</td>
<td>635</td>
<td>727</td>
<td>971</td>
<td>1369</td>
<td>1595</td>
</tr>
<tr>
<td>3-star</td>
<td>2287</td>
<td>2846</td>
<td>3166</td>
<td>3914</td>
<td>4779</td>
<td>5307</td>
</tr>
<tr>
<td>2-star</td>
<td>3748</td>
<td>4414</td>
<td>4684</td>
<td>5096</td>
<td>5698</td>
<td>5718</td>
</tr>
<tr>
<td>1-star</td>
<td>753</td>
<td>810</td>
<td>796</td>
<td>665</td>
<td>603</td>
<td>594</td>
</tr>
<tr>
<td>Total</td>
<td>7358</td>
<td>8880</td>
<td>9571</td>
<td>10888</td>
<td>12751</td>
<td>13583</td>
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</tbody>
</table>

Table 5.4 Number of star hotels in China in the past few years
Among all these star hotels, 4167 hotels are under collective management, 3600 belong to chain hotels. 516 hotels are managed by 41 international hospitality management companies with 67 hotel brands. The top 10 international hospitality management companies have all launched their business into China, which manage 480 hotels with 161974 rooms. The largest 30 Chinese hospitality management companies manage 1532 hotels with 303506 rooms. Other 276 Chinese hospitality management companies manage 2027 hotels.

● Hotel classification system

In China, based on “Star-rating standard for tourist hotels" adopted by the authorities, hotels are divided into star hotels or normal hotels. Star hotels can be further ranked from one-star to five-star based on detailed classification standards, plus a platinum level above the five-star category, but very few hotels (less than five now) can own this rank. After passing star rating assessment, a star hotel has to be reviewed every five years for keeping its rank.

In order to match the luxury hotels’ international standard, Chinese hotel classification system learns from other countries’ counterpart to assess top grade hotels. The detailed criteria include layout of the hotel, public information displays, decoration style, air-conditioning, condition of facilities and equipments, hotel management computer system, audio broadcasting in public areas, service language, lobby, kitchen, conference and amusement facilities, etc. Only those meeting all the certain criteria listed in "Star-rating standard for tourist hotels" have chance to be ranked as five-star hotels.

● Three main economic zones

Three most important economic zones in China comprise Jing-Jin (Beijing and Tianjin) area, Yangtze River Delta area, and Zhu Jiang delta area, where many economically developed cities, plenty of dynamic enterprises and well educated talents are concentrated. Statistics shows that GDP of these three economic zones accounts for about 38% of the national total.

Jing-Jin area is centered by two adjacent municipalities, Beijing and Tianjin, sometimes extending to neighboring areas called Ring Bohai Economic Circle altogether. Beijing, the capital of China, has a resident population about 16,950,000. The resident population in Tianjin city is about 11,000,000. Other important cities in this area include Tangshan, Qinhuangdao, etc.

The core city of Yangtze River Delta area is Shanghai, with about 18,880,000 resident
population, and in the whole 99,600 square kilometers area lives about 83,000,000 population. Located on China’s central eastern coast at the mouth of the Yangtze River, Shanghai is one of the worldwide recognized financial centers and tourism destinations. Other important cities in this area mainly include Hangzhou, Suzhou, Nanjing, Ningbo, Wuxi, Nantong, etc.

The core city of Zhu Jiang Delta area is Guangzhou (if not count Hong Kong and Macao), with about 10,050,000 resident population, and about 40,770,000 population in the whole 41,700 square kilometers area. Guangzhou is the capital of Guangdong province in the southern part of China. Other important cities in this area mainly include Shenzhen, Zhuhai, Zhongshan, and two international cities, Hong Kong and Macao, very close to them.

Figure 5.1 China map and three main economic zones

5.2 Typical local businesses

Like the situation in metropolises all over the world, a broad choice of restaurants, museums, parks, theaters, nightclubs, bars, gift shops, travel companies can be found around top level hotels in big cities of China. Common sense tells us premium hotels’ guests usually will
patronize one or several of above places, which are potential local businesses applicable to
the model of service innovation in this paper. Here I am going to take Shanghai as an example
to introduce some typical local businesses in China.

Restaurants, from my point of view, are always the most important local businesses anywhere.
Although every five-star hotel owns restaurant, guests would like to go outside so that have
chance to try more flavors. In Shanghai, currently more than 30 thousand restaurants serve all
sorts of food originated from more than 30 countries (including Italy, France, Japan, Portugal,
India, Thailand, Korea, etc.) and more than 20 China local areas (including Shanghai,
Hangzhou, Suzhou, Sichuan, Shandong, Henan, Guangdong, Fujian, etc.). Among these
restaurants, if only 3% are qualified to become partners of premium hotels, the number of
potential advertisers in catering business will close to one thousand.

According to the information on Shanghai government’s website, 19 museums of different
themes could be chosen by visitors. The fields embrace from general topics to very specific
themes, for examples, science, culture, art, medical history, printing technique, prison, navy,
and so on. Besides, there are also many parks, 12 in Putuo district, 9 in Xuhui district, 12 in
Yangpu district, 13 in Pudong new district, altogether 95 in Shanghai, some of which are free
and others need entrance fee. For guests who are fond of drama, opera or film, they have
quite a lot options when they come to Shanghai. The statistics on Shanghai government’s
website shows there are 231 big and small theaters in total, far and near to the city center.

Another major category of potential advertisers consist of night clubs, Karaoke bars, sauna
centers, dance hall, bowling alleys, gymnasiums and many other places of entertainment. It is
hard to know the number of such places in Shanghai now, but in 2004 the number of high-level
places of entertainment was more than 6000, quoted from old news.

Many tourists have a habit of taking some special local products back home, keeping for
themselves or giving friends as presents. For this reason gift shops may have interest to
advertise in hotels in order to attract guests. Some of gift shops sell general products, but
others focus on specific goods, such as Chinese antique, traditional clothing, local food,
calligraphy and painting, traditional folk artwork, etc. Only those shops selling high quality
goods should be considered to join the business network of our new service model.

It is clear that travel companies would like to advertise themselves in hotels, especially
five-star hotels, which entertain only high class guests with strong consuming capacity. From Shanghai Municipal Tourism Administration’s website, we can see more than 760 domestic travel agencies and 47 international travel agencies in Shanghai.

5.3 Opportunities

The World Tourism Organization forecasted that by 2020 China will become the top tourism destination country. Meanwhile, considering China’s fast GDP growth rate and increasing role in world economy, entering China market is faced with many opportunities.

● Hundreds of top level hotels

As we have introduced, according to official statistics from CNTA, 369 5-star hotels had been running in China by 2007. During 2008, the Beijing Olympic Games year, quite a few (no exact number available) 5-star hotels were put into production, and from now to the following several years many new projects are being built or in plan. Besides, owing to the uneven development of regional economies, the coastal areas in eastern China, especially the three economic zones, Jing-Jin (Beijing and Tianjin) area, Yangtze River Delta area and Zhu Jiang delta area, own about half 5-star hotels in China.

The big amount and concentrated distribution of 5-star hotels may bring a good chance to the service innovation in hotel industry. Apparently, big amount implies big market, from the view of IT system provider. When deploying new IT systems, 5-hotels' concentrated distribution makes it possible to reuse the network infrastructure that has been built in the same area. For marketers in our case, when they work on a new project, it will become easier to choose and develop business partners after they have been familiar with local businesses in past projects.

● Concentrated high consumption local businesses

The three economic zones mentioned above, Jing-Jin (Beijing and Tianjin) area, Yangtze River Delta area and Zhu Jiang delta area, are the most economically dynamic regions in China. GDP of these three economic zones accounts for about 38% of the national total, and about half 5-star hotels in China are located at these regions. Correspondingly, tourists and tourism businesses also gather there, which can be perceived from the form of receipts and visits of the top 36 international tourism cities in China, 2007.

Similar to other places in the world, high-end consumption businesses commonly concentrate
at some hot spots, but this trend is more obvious in China for the reason of uneven development of regional economies. In most of the developed countries, there is no big difference of consuming capacity between densely populated urban area and sparsely populated rural area. However, in today's China, highly prosperous spots and extremely poor areas coexist in one country, which sometimes can be very close. Wealthy people would like to live in a pleasant environment and consume at those places with high quality infrastructure and supporting facilities. At the same time, high consumption businesses also look for these wealthy customers. As a result, some hot spots have been formed, where there are intensely concentrated rich people and high consumption businesses. To be frank, it is not a good phenomenon for a country, but good for the business model in our case.

- Sustained growth in global activities

Along with China's rapid economic growth, the world pays more and more attention to this biggest developing country. This trend can also be seen in ever growing global activities that happened or will happen in China. Typical examples include Beijing Olympic Games in 2008, Shanghai World Expo in 2010, Guangzhou Asian Games in 2010, etc. Besides these worldwide well-known activities, every year thousands of large and small conferences and expositions take place in different Chinese cities, mainly in the three most important economic zones. According to "the Report on Development of China's Convention & Exhibition Economy, 2006 - 2007", published by Social Science Literature Publishing Ltd, China, from 2002 to 2006 the convention and exhibition economy's average annual growth rate is above 7%. During the year of 2006, 43 UFI (Union des Foires Internationales, or Union of International Fairs) approved events were held in China mainland, and more than 4000 events of considerable size in total.

Let's take Shanghai as an instance again. There were less than 20 exhibitions in 1984, the start year of convention and exhibition economy in Shanghai. The number increased to 40 in the year of 1990, and 100 thousands square meters exhibition area was put into use. After more than ten years development with average annual growth rate of 20%, in 2003, 330 exhibitions were held there with direct revenue of 180 million RMB. In 2006, Shanghai hosted 254 international exhibitions, involving 4 million square meters exhibition area, and the direct revenue was more than 300 million RMB. The form below shows the development from 2001
to 2006 in Shanghai. We can see that the average size of exhibitions grows steadily every year, although the amount of exhibitions has decreased during recent years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Exhibitions Amount</th>
<th>Average Area per Exhibition (sq.m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>278</td>
<td>5830</td>
</tr>
<tr>
<td>2002</td>
<td>314</td>
<td>10000</td>
</tr>
<tr>
<td>2003</td>
<td>306</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>284</td>
<td>10775</td>
</tr>
<tr>
<td>2005</td>
<td>276</td>
<td>13600</td>
</tr>
<tr>
<td>2006</td>
<td>254</td>
<td>17000</td>
</tr>
</tbody>
</table>

Table 5.5 Exhibition development in Shanghai from 2001 to 2006

These global activities, including international festivals, games, conferences and expositions, may benefit the service innovation in many aspects. Firstly, global activities bring lots of tourists and business people to the host city, part of who will stay in top level hotels and patronize local business partners. Secondly, to attract more high-end customers, those activities by themselves could become local business partners in the netlike model. Thirdly, after experiencing the convenience of the in-room IT system, those guests may advertise for it by word of mouth.

- **Government policy support**

In order to learn advanced technology and skill from other countries, Chinese government has been encouraging foreign companies launch their business in China for three decades, especially welcoming high-tech enterprises. Clause 1 of Article 3 of “LAWS AND REGULATIONS OF THE PEOPLE’S REPUBLIC OF CHINA GOVERNING FOREIGN-RELATED MATTERS (Revision in 2000)” notices that China welcomes export or technologically advanced foreign enterprises. In our case, the innovation is “the Neo-Industrial Pattern (a hybrid between the classic R&D pattern and the service professional pattern)”, involving advanced IT technology research and development. Therefore it should fall into the category most welcomed by Chinese government.

Although foreign enterprise related the laws and policies slightly vary from region to region, those preferential policies mainly cover exemption from all sorts of taxes according to the category of the business, the best price of fixed asset investment in many cases, and/or exempt from land use fee in some regions, fund support for those companies that can satisfy
specific prerequisites, and many other conveniences that might be provided by local governments. Here is an example of preferential policies for foreign-invested enterprises quoted from official website of Beilun District of Ningbo City.

“Land: Industrial land of ‘Eight Available and One Leveling’ (available land, power, steam, communications, cable television, water supply and drainage, and pollution charge, and leveled land) with 50 years of use right is transferred at the price of RMB 50,000/mu for land use certificate, without any other additional charge.

Income Tax: Income tax rate of foreign-invested enterprises is 15%, and the state has granted state level development areas with "two abatement and three halve" policy, that is, if the foreign-invested productive enterprise has an operation period of over 10 years, the income tax should be abated in the 1st and 2nd year after making profits, and in the 3rd to 5th year, the income tax should be paid in half.

Fund Support: For high-tech enterprises identified by the administrative committee of the development area, Beilun District will supply some allowances or supports in research and technology reconstruction from the Hi-tech Development Fund.

Charge other than taxes: The development area will be managed according to relevant laws and regulations, and charges other than taxes should be greatly reduced and indiscriminate charges should be stopped and we will make our effort to build a non-charge area.

Capital Construction Allowance: During construction period of the enterprise, electricity charges to the power supply department should be fully compensated by the administrative committee of the development area.”

● Cost efficient human resource

China was short of human resource of higher education in quite long time. To change this image, in 1999, Chinese government made a decision, which caused a great deal of controversy then and now, to expand education scale in colleges and universities. From then on, the higher education that had been accessible to very few people became a public service to common people. Ten years later, a news report of "China's higher education contributes to human rights progress" from Xinhua Press (Beijing, April 22, 2008) said, “The number of on-campus college students tripled from 6.23 million in 1998 to 18.85 million in 2007. Expenditures on higher education increased from 54.9 billion yuan (7.8 billion U.S. dollars) in
1998 to 255 billion yuan in 2005." As a result in human resource market, "the population with a tertiary education exceeds 70 million, ranking China second in the world in terms of workers with a higher education."

According to statistics of MyCOS HR Digital Information Co., LTD, in 2008, the average salary of Chinese graduate was less than 3000 RMB, which is much less than the counterpart in developed countries.

Therefore, to launch a business in China has a big advantage in terms of human resource, which is both qualified and cheap.

- **Neighboring markets expansion**

Once gaining a stable foothold in mainland of China, the business is quite convenient to be expanded to neighboring markets, such as Hong Kong, Macao, Taiwan, Japan, South Korea, Indonesia, etc. These countries or regions share same or similar culture and language with mainland of China, which makes the business experiences acquired from China market much valuable in the future. Considering China as a center, expanding neighboring markets could be a long term development strategy.

### 5.4 Difficulties and risks

Many entrepreneurs have noticed China market is a tempting cake, but by reasons of competition, culture difference and business custom difference, to conduct a business of new model in China will be confronted with some difficulties and risks.

- **Strong competitors**

For an IT system provider, when entering to China market, one big challenge it has to face up is the existence of strong competitors. The representative competitors include AMTT group’s products, WYSE’s solutions for hospitality, Cisco’s HOTEL 1000, and SAMSUNG’s Hotel TV.

From the perspective of techniques, some of these products supply similar IT service with InfoQuest's SaberKnot, and some of them completely overlap it, though their business strategies are different.

Here we take AMTT as an example. AMTT DIGITAL SERVICE GROUP is a local Chinese young company, established in 2006, whose target market is also 5-star hotels. Currently AMTT supplies three kinds of solution system, called ISTV, IDS and HSIA.
ISTV system is like SaberKnot most. It provides a vast variety of interactive digital entertainments and value added contents to guests. On AMTT’s website, ISTV is described as follows. “With the Digital Display Engine Technology and the Information Distribution Platform as core, innFOR ISTV collaborates with the manufactures of digital media device, developers of network system management software, network operators and broadband digital content providers, to form a perfect union to provide hotel guests a smarter guestroom experience. Services are intelligently provided to facilitate mobile office, in-room entertainment, one-click communication and useful information. It adopts the latest embedded technology that ensures high-performance, high-reliability and easy to maintain. This system perfectly integrates digital video, digital TV, traditional TV, and software applications into the hotels interactive information and network services. It supports WAN centralized service that enables centralized management.”

IDS’s full name is Intelligent Multimedia Information Distribution System, which is mainly used to display information in high-end hotels. With four technological advantages, “Latest High-Performance Embedded Technology Platform from Linux, Universal Display Driver, Multi-level Dynamic Memory Technology and Low-Power/High Reliability hardware design”, AMTT is very confident with its powerful Task Management functions and information display capabilities.

HSIA is an integrated Broadband Services system, which “fulfills the functions of the business layer such as User Management, Billing, PMS interface etc. The AMTT innFOR HSIA also functions as a Radius Server which based on the Linux operation system and MySQL database platform. The information gathered by innFOR HSIA can be used to support the operations of AMTT innFOR ISTV and AMTT innFOR IDS. Multiple innFOR HSIA systems from different hotels can be monitored and managed centrally by innFOR NOC (Network Operation Center). Information gathered by individual innFOR HSIA can be uploaded to innFOR NOC at regular intervals”, as described on AMTT’s website.

Making good use of the opportunity of 2008 Beijing Olympic Games, AMTT has developed into a successful company in this field in China with tens of customer hotels, and its business is growing very fast. It will be a big challenge for any company competing with AMTT in China.

• Culture difference
Another challenge comes from the differences between East and West, or China and Europe/US. In the following when we say ‘culture’, it actually encompasses a wide range of concepts, but not in its narrow sense.

The first difference should be language. All text contents need to be translated into Chinese for Chinese guests, and keep other language versions at the same time for foreigners.

The second difference exists at laws and policies. In mainland of China, some legal recreation activities in other countries become illegal, such as gambling, strip show, sex and pornography business, etc. When choosing advertisers and building website, network members should be always cautious to avoid involving such sections.

The third difference refers to consumption habit. For example, many western people, no matter how old they are, like to communicate experience and feeling at pub or bar, but most Chinese middle-aged and elder people prefer doing these in a restaurant or karaoke hall. Similarly, some popular local businesses in western countries may be not so welcome by Chinese; on the other hand, some local businesses without big market in western countries can become very successful in China, like tea house and karaoke hall.

- Business custom

Chinese business custom deserves more attention in this network model, where a group of participates cooperate and interact with each other, most of which are local Chinese organizations. Regarding this topic, lots of scholars have done considerable research in all aspects. Here I want to stress some points.

Relationships sometimes are more effective than contracts in China. In some extreme cases, even contract cannot be relied on in a process of cooperation. Most of the business deals are conducted on basis of the trust of relationship, but not contract, which is unimaginable for western people who didn’t know it before. The fact is, even though there are some contracts, the function of relationships is still irreplaceable in Chinese business custom. A well maintained social network may help a lot in one’s business.

Customers may raise new requirement or change old requirement at any time, and this is quite common in China. As introduced before, Chinese business men emphasize relationships so much that sometimes even replace contract. As a result, the business activity becomes flexible and nonstandard without a binding contract.
Chapter 6 Conclusion

In this thesis, the product of InfoQuest is studied to analyze a service innovation in hotel industry. InfoQuest redefines several economic roles and relationships among them through its product SaberKnot. It provides a new chance for IT system provider, hotels, local businesses and customers co-creating value together in a netlike business model.

Through studying the new business model in hotel industry combined with service theory, this thesis tries to answer two research questions. In this chapter, I am going to answer the two questions as a conclusion:

1. What competitive advantages and potential problems might be brought by this service innovation?

This service innovation might bring competitive advantages to all the participants in the new netlike business model. IT system provider improves its customers’ and partners’ competencies with its product. The attractive functions and convenient information allow customers to be ready to use it and explore it, and thus they satisfy themselves and in the mean while bring profits to other actors. Hotels lodge guests and provide space to other actors, the reward for which is improved IT facilities and customer loyalty. With the help of partners, local businesses have chances to advertise their goods to their target customer group directly. However, innovation is followed by both new chances and threats. In this paper, potential problems listed mainly relate to these topics: prime player, members control, disputes adjudication, copyists competition, and current fund.

2. As a service innovation originated from Europe, is it feasible to transplant such a new business model to China market?

The biggest developing country in the world, China has been one of the fastest economy growing nations in the last several decades. The remarkable growth has impacted significantly on the global economy. China market and the feasibility of entering the business into China are examined in this thesis, and the conclusion is that opportunities, difficulties and risks coexist. Despite that this paper focuses on a case initiated in hotel industry, other industries may also be stimulated from the new business model. According to Service-Dominant Logic, service innovation through cooperation of business participants, making use of ‘operant’ resources,
and focusing on value co-creation with customers, can bring new opportunities to companies in different industries.

The future study of this research may be conducted in two directions. First, keep on following the projects of InfoQuest. Since most analysis in this thesis is based on theory, we need materials from project process to verify and develop my viewpoints. Second, research how to apply the netlike business model into other industries. For example, we can see piracy is very rampant in film industry, though governments and international organizations have made many laws against it. But it is hard to eliminate piracy for various reasons. If so, why do not change the business model in film industry? Audience can watch movies for free or with little cost, but some advertisements will be shown at the beginning of the movies. A more natural way is to ‘embed’ advertisements into movies, which won’t affect audiences’ moods. Here ‘embed’ means to integrate advertisements with movies, for instance, highlight the brand when a heroine wears her sunglasses. In this case, film companies, customers, advertisers, and sometimes cinemas, become a business network in film industry.

There is even chance for service innovation to fail and to succeed. Only practice can tell the result. However, no pain, no gain. We should always try to boldly innovate and explore, because that is the way of human progress.
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