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Yiching Liou

*National Chin-Yi University of Technology, liouyc@ncut.edu.tw*

Minder Chen

*California State University Channel Islands, minder.chen@csuci.edu*

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# COMPETING IN THE BUSINESS PROCESS OUTSOURCING INDUSTRY: A CALL CENTER CASE STUDY

Yiching Liou, Department of Information Management, National Chin-Yi University of  
Technology, Taichung 411, Taiwan, R.O.C., liouyc@ncut.edu.tw

Minder Chen, Martin V. Smith School of Business and Economics, California State  
University Channel Islands, Camarillo, CA 93012, USA, minder.chen@csuci.edu

## Abstract

*In this paper, we study the business model of a call center in the business process outsourcing industry through case study research method to understand its business model and critical success factors. We found that the case company employed a concept of “virtual call center” and has developed “standard service processes” and “reused” them across various industries, product lines, and countries with only minor adjustment and customization. The case company leaned from Intel’s Copy Exactly technology transfer method and TSMC’s smart copy to take advantage of the experience curve. Its business model, and deployment and integration of information and communication technologies makes it possible to shorten the time for developing new services, reduce CSR training cost, and maintain competitive advantages such that it continues to grow rapidly and is profitable. Therefore, the company can provide streamlined and professional service for their business clients to keep excellent customer relationship. We have observed the new phenomena, “Service Sector Manufacturization” through the analysis of the case data collected.*

*Keywords: Business Process Outsourcing, Call Center, Manufacturing Sector Servitization, Service Sector Manufacturization.*

# 1 INTRODUCTION

There are two types of manufacturing outsourcing, information technology outsourcing (ITO), and business process outsourcing (BPO). First, it is the outsourcing of manufacturing activities in the early 1990s. In the late 1990s outsourcing and offshore outsourcing of IT services become very popular because of the lack of internal IT professionals with needed technical skills. With the availability of collaborative technologies and inexpensive global Internet bandwidth, as well as firms moving towards specialization strategies based on their core competency, companies start to outsource the development and support of IT applications, to rent IT applications (e.g., salesforce.com) or platforms (e.g., Amazon's AWS), and to handover various tasks and business functions to service providers. Companies providing outsourcing services are critical to successful outsourcing arrangements.

IDC survey showed that the top 10 reasons for business organizations to undertake outsourcing are: enhancing company focus (55%), reducing and controlling operation cost (54%), flexibly using resources (38%), obtaining world-class technical and management capability (36%), scarce internal resources (25%), facilitating internal reengineering and transformation (20%), shortening product life cycle time (18%), avoiding risk (12%), offshore manufacturing capacity (12%), and difficulty or out of order in management (10%). Typical outsourcing operations include information technology, human resources, machinery and facilities, real estate management, and accounting. On the other hand, many companies choose to outsource customer support, call centers, CAD drafting, customer service, market research, production, design, website design/development, engineering, etc.

Global economic regression caused by dotcom bubbles has emerged since the middle of 2000. Many renowned global firms were forced to outsource non-core business processes to third-party service providers. They chose to outsource the operations of call centers, technical support, IT/MIS operation, financial and accounting, and human resources; even employed offshore outsourcing strategy to contract Asian service providers with relatively lower cost. According to OVUM service industry market research report (2001), it revealed that the total call centers' seats globally would grow to 10 million in 2004 and market value would increase to 45.3 billion in 2006. The productivity of call centers has contributed to at least half of the market value. The United States has been recognized as the largest and mature market of customer support/service for call centers. In addition to telecommunication and banking industries, call centers are necessary in various sectors including governments, consumer's goods, health care, and insurance. Providing customer supports and services is considerably a new industry in Taiwan. It started about 9 years ago and concentrated on only telecommunication and banking industries initially. Hence, there is sufficient room for growth and further development.

We used case study research method to examine the business model of a company providing call center related services. Data has been collecting for the past two years through both formal and informal interviews and communications with employees at different levels, and analyzed to understand how the company utilize external economic opportunity and learn from other industry to formulate a successful business model for improving internal strength, providing streamlined service, and create customer experience value and profits. We also looked into the possible reasons for a successful business models and recorded related discovery as we progressed. The following sections are literature and related issues, research methods and propositions, case study and analysis, discussion, as well as conclusion and contribution.

## 2 LITERATURE AND RELATED ISSUES

### 2.1 Business Process Outsourcing

Business process outsourcing is defined as "contracting external service provider to conduct specific business processes, may including overall support operations" (Gewald & Dibbern 2009).

Dayasindhu (2004) and Pfannenstein and Ray (2004) classified it as information technology-intensive outsourcing operations. Most service providers take over the processes, manage the complete processes from end-to-end, and simply provide their customers with final results (Braun 2004). Although companies can obtain cost and competitive advantage, the BPO adoption rate is relatively lower than ITO's.

Most BPO-related research is derived from ITO-related research, such as BPO model, the adoption or constraint factors of BPO (Gewald & Dibbern 2009; Gewald et al. 2006), BPO effectiveness (Willcocks et al. 2004), critical successful factors of BPO (Wullenweber et al. 2008), effective control and management structure (Kim & Kim 2008; Mani et al. 2008), mechanism to locate BPO service provider (Tanriverdi et al. 2007), and readiness of BPO companies (Martin et al. 2008). There is rare research done from the perspective of BPO service providers, especially providers in the newly-emerged customer support/service industry. Thus, we conduct a case study research on the business model and operations of a call center company.

## **2.2 Customer-Service Industry**

With the advances of information technology and internet economics, call centers become the “human” and personal connection between product/service providers and their customers. It is an enabling force to transform companies from traditional product-centric enterprises to become customer-centric (Kuglin 1998; Vakharia 2002). Early call center operations are considered mostly as a cost center, allowing only inbound calls. Investing in call center operations can increase customer satisfaction but it may not generate any revenues directly. Several firms have started to transform their in-house call center to become profit centers that handle outbound calls to market various products and services (i.e., telemarketing). This transformation in service industry and customer-centric trend encourage companies to expect high value-adding from call centers operations whether they are in-house or outsourced. Good service quality of call centers can boost sales and raise customer satisfaction; hence enhance customer loyalty and improve profitability. Thus, the operation of call centers turns out to be critical link between the supply and demand chain, and a communication channel connecting producers and customers. Call centers can provide the business intelligence by analyzing data collected via their interactions with customers to shape a firm's business strategies.

## **2.3 Operations of a Call Center**

### *2.3.1 Service Process of a Call Center*

There are three levels in the operation of call centers. End customers are customers of the clients of call centers. Customer service representatives (CSR) are first-line agents of call centers. And the business itself (in-house call center) or business customers of call centers (outsourced call center) are the third groups. Simple inbound calls can be handled by a CSR. A more complicated matter may need the help from a second-tier CSR or unit head (group leader of CSRs). The most sophisticated problems often follow the escalation mechanism to resolve these problems. The average handling time of a call depends on the complexity of a problem. Sometimes it can be resolved immediately. Some may need a few minutes, hours, or even days. Outbound calls refer to the calling list provided by their contracted business customers. Therefore, besides the integration of telephone and information systems, the efficiency and quality of call center service depends on the design of service process and scripts, as well as communication skills of CSRs.

### *2.3.2 In-house and Outsourced Call Centers*

Technology, process, and people are three important factors involved in the operations of call centers. Companies need to evaluate whether they has sufficient resources and experiences to operate a call center. Meanwhile, they also have to consider if they have professional specialists to support the planning, implementation, and management of a call center before building an in-house call center.

On the other hand, professional call center service providers possess advanced facilities and equipments, cutting-edge technology, experienced specialists, excellent training programs and trained agents, and well-designed service processes to offer streamlined service. Therefore, companies can offer qualified customer services without large investment on implementation, operations, and maintenance of in-house call centers. At the same time, professional call center service providers can obtain cost advantage through economy of scale and competitive advantage by offering “virtual call centers” for different companies in various industries located in different countries which have different cultures.

### 2.3.3 *Integrated Information and Telephony Application Systems*

The operation of call centers relies on integration and implementation of powerful information systems and telephony technology. Taking the case company as an example, there are more than 10 different hardware and software platforms including physical networks, fire walls and antivirus software, PBX (private branch eXchange) equipments, automatic call distributor, auto dialer, CIT (computer integrated telephony) facilities, telephone recording system, quality management systems, fax servers, database, and frontend applications supporting CSRs (Customer Service Representatives). In addition to support the inbound and outbound call service for CSRs, this powerful integrated systems need to generate administration/management-related reports, performance reports, and customer data and analysis reports required by various levels of management in the call center. It will be much more complicated and sophisticated if the operation involves integration with the internal information systems of its business customers, providing services over multiple simultaneously-operated call centers, and serving end customers from out of the country. The complex service processes and the need to integrate various technologies makes call center a technology- and knowledge-intensive industry. Based on McKinsey report, the annual operation budget for a call center with 200 seats is about 10 million (Gilson & Khandelwal 2005). The case company revealed that *“The initial investment of hardware facility is about NT\$2,000,000 without including other budgets for software and human resources, ...”* Further, the professional knowledge and expertise required for integrated technology and customer relationship management are of paramount importance to the operation of a call center.

### 2.3.4 *Customer Service Representative Training*

Domestic call centers are mostly small companies. Cost of human resources contributes the largest portion of their operating expenses. However, the management of a call center is a well-known problem in the industry. High turnover rate is a common phenomenon in this industry. The case company expressed that *“The turnover rate of 1<sup>st</sup> year staff ranges from 10% to 20% in different regions where we operate.”* The main reasons for this high turnover rate for call centers employees are elevated pressure of resolving customers’ problems, extensive frustration due to customers hanging up calls, difficulty of transferring to another departments or getting a promotion, and pressure in meeting quota. Taking the case company as an example, the time needs to recruit and train CSRs before they can perform on the line varies from 3 days to 30 days, given various conditions with different service contents, product knowledge intensity, and CSRs’ own characteristics and attitudes. Thus, the cost of managing human resources in call centers is relatively high. The call center needs to establish a standard procedure in recruiting, training, performance-evaluating, systematic process management practices facing high turnover rates to cut down HR costs and to achieve high performance and profitability.

### **3 RESEARCH PROPOSITIONS AND METHOD**

#### **3.1 Research Goal and Proposition**

Our research goal aims at studying the business model and practices of a call center company. Business operation is a value-added process and this value needs to be consistent with customer's profit, so that the business can make earnings by creating value for their customers. Chesbrough & Rosenbloom defined the business model as an operating process which can transform input into outputs while creating profits (Chesbrough & Rosenbloom 2002). We apply their business model framework to form our research propositions and conduct in-depth analysis of the case company. There are six elements in the framework: value proposition, market segment, value chain structure, revenue generation and margins, position in value network, and competitive strategy.

Value proposition states how the business model can contribute to both the market and customer value. Market segment depicts how to segment market and learn about customer's requirements in particular market segments. Value chain structure illustrates how to position the firm in value chain and then identify, cultivate, and exploit core competencies in its primary or supporting activities. Revenue generation and margins reveals how to construct a high-profit structure of cost and revenue. Position in value network displays how to maintain the competitiveness and build strong relationships with customers and suppliers by adding values to the industry-wide supply chain. And finally, competitive advantage represents how to form and keep competitive advantage. We postulate the following propositions:

- A successful business model should result in better value proposition.
- A successful business model should result in better market segment.
- A successful business model should result in better value chain structure.
- A successful business model should result in better revenue generation and margins.
- A successful business model should result in better position in value network.
- A successful business model should result in better competitive advantage.

#### **3.2 Research Method and Data Collection**

Case studies are the most commonly seen qualitative research method (Orlikowski & Baroudi 1991; Alavi & Carlson 1992). Bombast et al. (1987) also suggested that it suits the study on information systems in which the focus has turned from technology-related issues to organization-related issues. The case company is in the technology-intensive BPO industry and our study focuses on investigating its business model and organization-related issues. Thus, we employed the case study research method to examine the business model of a typical call center service provider. Critical success factors for the case company are also identified.

Data collection was conducted through both formal and informal interviews and both primary and secondary data are used. Intensive interviews are conducted in semi-structural form during an 8-month period. These interview methods deployed include face-to-face, telephone calls, and email. Interviewees involved staff from various levels of the case company including CEO, COO, one project manager, 4 operations managers, 3 unit heads, one human resource staff member, and 4 CSRs. Secondary data are collected mainly from the company's website, news papers and magazines, and presentation slides from the company.

## **4 CASE STUDY AND ANALYSIS**

### **4.1 Company Introduction**

The case company was founded in 2001. Its vision is to provide streamlined customer service expertise to help business customers obtain competitive advantage by providing excellent customer services for them via integrated electronic channels and business processes. It inspired to become an organization with high performance, and a corporation with learning capability, team spirit, and high growth. It planned to grow to be a professional call center service provider with 1000 seats of enthusiastic customer service representatives within 10 years. The case company's organization structure consists of CEO office, strategy and development department, information management department, financial and accounting department, performance and administration department, human resource department, as well as sales and development department. There are directors and several subordinates in each department responsible to carry out different functions. There are four operations centers in Taipei, Taichung, Shanghai, and Sebu. An Okinawa operations center will be set up in 2010. Each operations center has an operation director in charge of the center's operation, several operations managers, unit heads, and many customer service representatives. Their total CSR seats ranged from 350 in 2006, 430 in 2007, 700 in 2008 and 900 in 2009 which indicated that the case company is a company with steady growth. It is on track to meet its goal of becoming a service provider with 1000 seats capacity. Besides, their average annual revenue growth rate during 2006 and 2009 is about 12%. These increasing figures of both CSR seats and revenue showed that this case company has been running and operating successfully.

Services provided by the firm can be grouped into 3 categories of 27 types of service items as listed in the following:

- customer service and technical support center: telephony service process, email service process, customer complaint handling process, single call handling and resolution process, website scanning process, problem management process, resource management, customer experience management, and maintenance process.
- small- to medium-sized business database marketing center: customer profiling process, customer requirement analysis, customer targeting process, customer acquisition process, customer usage process, customer order fulfillment process, customer churn rate prevention process, customer repurchase process, and customer experience management.
- customer loyalty management center: customer profiling, customer segment and positioning process, customer retaining process, customer usage process, order fulfillment process, payment process, customer acquisition process, customer experience management, customer reward and feedback process.

Industries served by the firm include financial, information technology, networking and communication, medical and health care, consumer goods, and public sectors. Staff in top management levels came from international corporations with more than 10-year working experience in managing a call center. They have real-world experiences in managing highly-complicated business processes for companies in banking, insurance, public utility, networking, and consumer goods.

### **4.2 Business Model**

The case company employed a concept of "virtual call center" and has developed "standard service processes" and "reused" them across various industries, product lines, and countries with only minor adjustment and customization. It learned from Intel's Copy Exactly technology transfer method and TSMC's smart copy to take advantage of the experience curve. Its ability to integrate and deploy information and communication technologies makes it possible to shorten the time for developing new services, reduce CSR training cost, and maintain competitive advantages such that it continues to

grow rapidly and is profitable. Therefore, the company can provide streamlined and professional customer services for their business clients.

The early stage of its foundation happened to be the golden age of Taiwan semiconductor OEM industries. Taiwan Semiconductor Manufacturing Corporation (TSMC) is the most well-known example. The founder and CEO of the case company stated “...*Taiwan is famous for her OEM in semiconductor industry. But Taiwan’s future will at least in part rely on the development of its service OEM industry.*” The service OEM should be a knowledge-intensive industry to stay competitive. He expected to explore the opportunity of “*service OEM in Taiwan,*” and inspire to be “*the TSMC in service industry.*”

The CEO stated that “... *My major in college is mathematics. I am very much familiar with the process of developing, testing, modifying, testing, modifying ....until the most appropriate model emerged, ...*” His prior working experience in IT and banking customer services also shaped his thinking in using IT as an enabler and in managing the firm.

#### 4.2.1 Value Proposition - Create the Value of Market and Customer

The case company earned an ISO-27001 information security certificate, became a government approved professional financial customer service provider, and was selected as a show case of government newly designated emerging and strategic industries in CRM. The company has professional management teams with more than 10-year experience on average and it is recommended by leading companies from various industries for its ability to create values and expand market for its customers.

The CEO revealed that “...*we will sign a contract only when we believe that we can create value for our customers after discreet evaluation. We are very selective and only work for a company that is top three in its industry.*”

#### 4.2.2 Market Segment - Segmenting Market for Customer Requirement

Most managers of the case company came from a famous international bank. They have professional experience in banking industry and expertise in running a call center to provide excellent services to support their clients to serve their end customers. From the perspective of an experience curve, it is no doubt that this case company can provide effective value-added services to different companies in the same banking industry. However, there was some doubt at the onset whether it can transplant its experiences to different industries? Lately they found that the only differences among diverse industries are specific know-how of products/services in various industries and some variations of end customers’ characteristics. These differences could be overcome by learning from the clients and their customers, building systems to encode knowledge of products/services, adapting the standardized service processes for different industries, improving and refining the service processes continuously.

The industries they serve comprise of companies in finance, information technology, networking and communication, medicine and health care, consumer’s goods, and public sector. The COO expressed that “*Though we began by providing service in financial industry, we aggressively studied the know-how of different industries to expand our services cross-industry and cross-product.*”

#### 4.2.3 Value Chain Structure - Designing the Cost/Revenue Structure for Profit-Making

Traditional manufacturing companies can estimate their costs by calculating the fixed and variable costs. However, companies in service industry need to use activity-based costing (ABC) system to estimate their costs. It decomposes a service process into multiple activities. The case company developed “*standard service processes and activities*” so that they can track the costs and resources used of a process based on activities deployed in the process.

The COO said that “...*starting from business development, project management, customer requirement and service level determination, communication content design, agent recruiting and*



*training, hardware and software, we charge at about NT\$60,000~120,000 per seat per month depending on the level of difficulty involved.”*

#### 4.2.4 *Revenue Generation and Margins - Constructing Value Chain and Possessing Core Competency*

Call centers often serve as the critical link between demand and supply chain. They play a major role in value chain only through deploying advanced technology and applying professional knowledge of customer support and service. The firm is known for providing not just excellent services to its clients' customers. It also provides valuable insight of these customers to its clients to help them develop new strategies and become more profitable.

The CEO believed that “.... *saving money for customers is making profits for ourselves ....*”

#### 4.2.5 *Position in Value Network - Building the Competition-Cooperation Relationship of Value Network*

Building value network in context means to build strategic alliances with suppliers, customers, partners, and even competitors in a business value network. Individual companies can either form a partnership relationship with their strategic alliances, or concentrate on finding the best position in the value network according to its own core competency.

The CEO revealed that “*We consider our customers as partners and intend to keep long-term relationships with them.*”

#### 4.2.6 *Competitive Strategy - Forming and Maintaining Competitive Advantage*

In its early stage, the case company faced rapid growth facilitated by government's policies in restructuring and consolidating banks and other financial institutions. There seemed to be sufficient room for growth for the service industry in Taiwan to serve a variety of industries. At that time, they had signed contracts with companies in financial, travelling, and telecommunication industries. It gradually formulated its own business model in 2~3 years and aimed to provide high value services and to increase its clients' profitability. It set out to grow smoothly and continuously so that they can develop and integrate the three most important factors for running a call center (i.e., technology, process, people) to maintain its competitive edge.

When asked how he faced and responded to the impacts caused by global financial tsunami in one of our interviews held in May 2009, the CEO replied that “... *this is a wonderful opportunity for us to slow down a little bit, to polish our service processes, to cultivate and train internal personnel, to improve our customer service quality and knowledge management. Our employees tend to cherish their works more.*” This is an indication that the case company is able to adapt to the dynamic economic environment and maintain its competitive advantage. The company's success is also reflected objectively based on their growth in revenue and CSR seats as discussed in section 4.1.

## **5 DISCUSSIONS**

### **5.1 Manufacturing Sector Servitization and Copy in Manufacturing Industry**

According to Guangjie and Gregory (2008), “manufacturing sector servitization” was recognized as the introduction of service concepts and design into manufacturing process and operations. Vandermerwe (1988) defined it as “the expansion behaviour to add value by integrating products, services, supports, self-sufficiency, and knowledge with core business processes.” Other researchers thought that “it is a proceeding process to change corporate strategies in providing better service to meet customers' requirements, obtain competitive advantage, and earn more profits” (Guangjie & Gregory 2007). There are many scholars suggested that “service” should be included as one of

company's operation in manufacturing industries (Wise & Baumgartner 1999; Brax 2005; Mathieu 2001). Sawhney et al. (2004) proposed that manufacturers could create new business opportunities by expanding the supply chain to service originally managed by customers, or by combining adjacent supply chains. Brax (2005) found that integrating service into business value chain not only promotes the product values, but also induce product differentiation for better competitive advantage. Moreover, it could maintain long-term customer relationship, create new growth opportunity in mature market, and balance the impacts of business cycles.

Taiwan Semiconductor Manufacturing Company Limited (TSMC), founded in 1987, is the world's largest dedicated semiconductor foundry. It provides the industry's leading process technology, library, and IP options, as well as other leading-edge foundry services, such as mask making, IC packaging, and testing. It uses an unique manufacturing strategy, Virtual Fab, to reform the IC industry by providing a virtual manufacturing factory for IC design firms. So companies designing IC's can establish OEM contracts with TSMC and no longer need huge investments in building plants. TSMC, then, performed as a "virtual" factory to manufacture IC-related products and it also provide ways for their customers to keep track of transparent manufacturing processes through powerful Web-based implementation of cutting-edge information technology (Yu 2001). Thus, TSMC can continuously concentrate on researching, developing, and improving its manufacturing processes to better serve their customers while maintaining its competitive advantages. This is a good example of "manufacturing sector servitization."

TSMC also established an excellent strategy in knowledge management to systematically gather, sort, store, and distribute all kinds of professional expertise and information in constructing and operating a manufacturing factory, so that a new employee can quickly gain prior experiences by others by simply looking up "standard operating procedures" in its KM system. It has a central repository for best settings for machinery, facilities, materials, manufacturing processes, and industrial know-how (McDonald 1998). They use the central repository such that a new factory can be replicated the performance of the existing ones. This is called the "smart copy" of a factory (Chuang & Chang 2000). In other words, it can guarantee similar quality and productivity for every customer's order no matter which plants those orders are manufactured.

## **5.2 Service Sector Manufacturization and Standard Service Process in Service Industry**

The case company was founded in 2001, which happened to be the golden age of Taiwan semiconductor OEM industries. As mentioned above, the leading company, TSMC, introduced the "virtual fab" concept to consider itself as a manufacturing service provider. It has become a typical example of manufacturing sector servitization. It also developed a standard procedure for building new factories derived from "smart copy" strategy based on Intel's Copy Exactly approach (McDonald 1998).

The founder and CEO of the case company valued highly on knowledge economics and expected to explore the opportunity of service OEM in Taiwan in early 2001. Thus, it learned from the TSMC strategy and considered itself as a "virtual call center" which designs and deploys "standard service processes" to aim to become the "TSMC" in the service industry. It applied the concept of "manufacturing process" to set up a standard procedure covering initial communications with customers, planning service processes, setting up service level agreements, developing scripts, recruiting and training CSRs, and finally, formulating key performance indicators. As a result, it could maintain a reasonable cost and revenue structure, provide streamlined and dedicated service, and create value for their clients.

## **5.3 Experience Curve and its Effectiveness**

The experience curve is correlated and similar to learning curve. The effectiveness of both expresses the relationship between experience and efficiency or between efficiency gains and investment in the effort. As individuals and/or organizations get more experienced at a task, they usually become more efficient at it. The rule of learning curve effect states that the more times a task has been performed,

the less time it will be required to finish the task. This relationship was probably first quantified in a research in 1936 when it was determined that every time total aircraft production doubled, the required labor time decreased by 10 to 15 percent. Subsequent empirical studies from other industries have yielded different values ranging from only a couple of percent up to 30 percent. Learning curve theory indeed states that as the quantity of items produced doubles, costs decrease at a predictable rate.

The experience curve effect is broader in scope than the learning curve effect encompassing far more than just labor time. It states that the more often a task is performed; the lower the cost of doing it. The task can be the production of any good or service. Each time cumulative volume doubles, value added costs (including administration, marketing, distribution, and manufacturing) fall by a constant and predictable percentage. In the late 1960s, the Boston Consulting Group (BCG) began to emphasize the implications of the experience curve for strategy. Research by BCG in the 1970s observed experience curve effects for various industries that ranged from 10 to 25 percent. Reasons for the effect include labor efficiency, standardization, specialization, methods improvements, technology-driven learning, better use of equipment, changes in the resource mix, product/service redesign, and network-building and use-cost reductions.

The case company took advantage of experience curve to improve their service quality and performance with limited costs and resources by way of developing standard manufacturing procedures of services (standardization), continuous cultivation and training of staff (labor efficiency), improving service process during iterations for different business customers in the same industries (methods improvements), employing streamlined technology to support their service process (better use of equipment), and constantly redesign their service process to facilitate companies in different industries (product/service redesign). Besides, most of the top level management in the case companies has almost 10-year related working experience as described earlier. Their knowledge and expertise can serve to aid their current operations and management to save administration cost, improve service quality, and best of all, increase revenue. This conforms to the suggestion made by McKinsey that cost, quality, and revenue need to be balanced for a good customer service strategy (Gilson & Khandelwal 2005).

#### **5.4 Standard Manufacturing Process and Reuse**

The case company can serve different companies in the same industry by taking advantage of experience curve effects. It can also support call-center operations and duplicate the service processes for various products and for customers from different countries with only minimal adjustment and customization. From the technological viewpoint, simplifying software and systems in a service-oriented IT infrastructure can reduce maintenance cost (Yoon & Carter 2007). “Reuse” can reduce systems development costs (Lim & Wen 2003). Therefore, the relationship of standard manufacturing process to service is similar to modular design in information systems and “service process reuse” is like software reuse. It can reduce the costs and cycle time of service process design and development.

The COO (chief operation officer) in Shanghai office declared that *“Taipei headquarter planned to make Shanghai office the test site of service processes in Mainland China. All those service processes successfully tested by Taipei office will be transferred to Shanghai office for further testing after appropriate adjustment and localization. Then they will be duplicated to various operation offices in different areas.”*

## **6 CONCLUSIONS AND CONTRIBUTIONS**

We use a case study method to investigate the business model of a call center service provider and its subjective and objective performance metrics. It was found that the case company employed the “virtual call center” approach and has developed “standard service processes”. With only minor adjustment and customization, these standard service processes are “reused” across various industries, product lines, and countries. The case company leaned from Intel’s Copy Exactly technology transfer method and TSMC’s smart copy strategy to take advantage of the experience curve. Its business

model and effective deployment of integrated information and communication technologies makes it possible for the company to shorten the time for developing new services and to reduce CSR training cost. The company is able to provide streamlined and professional service for their business clients to foster excellent customer relationship. And in return, it maintains competitive advantages and profitability while continues to grow.

From the academic viewpoint, we investigated the operation of a service provider (outsourcer) which earlier research made rare contribution for most of them conducted research from outsourcers' perspective. We are planning to further study its internal operations and management, the application of information technology for business intelligence and knowledge management, key performance indicators, and service innovations that add values to customers. Meanwhile, other BPO companies can follow the best practices identified to create their own successful business models and operations. We have also observed a new phenomenon, "Service Sector Manufacturization", through the analysis of the case data collected. There was few academic research on "manufacturing sector servitization" until the advent of the newly formed service science discipline. Service sector manufacturization may improve efficiency of service rendering, but may lead to less personal/customized interactions between frontline workers and customers. It will be very interesting to study the impact of service sector manufacturization on customer satisfaction.

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