A STRATEGIC ANALYSIS OF AN IT COMPANY FOR SOFTWARE LICENSING SOLUTIONS

by

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ABSTRACT

XYZ is a newly acquired software company of Company JL, which develops recreation management products for Parks and Recreation centres across North America. Company XYZ uses a perpetual licensing model where a lump sum is charged up front for the use of the software. Company JL uses a transactional licensing model where the licensing fee is charged per transaction via the Internet. Company XYZ can provide its customers with hosting solutions that provide end users with online registration services.

Based on our analysis of XYZ's internal competencies and external environment, the transactional licensing model is recommended as the most suitable software licensing strategy for meeting the company's goal of increasing revenue by 20%, aligning itself to customer values, and increasing transaction volume by 40%. This study further recommends that a gradual transition to a full transactional model is a key to ensuring success for both Company XYZ and its customers.

EXECUTIVE SUMMARY

The increasing number of people going online has made it necessary for many enterprises to seek ways of engaging their potential clients as well as existing clients in that forum. Software development companies have led the way in making this interface between companies and their clients easier. The relationship between these software companies and their target enterprises has generally centred on the perpetual licensing model, which unfortunately, has become complex and unattractive for many customers. In the dynamic field of software development, novel forms of licensing relationships have emerged beyond the perpetual model, including transactional and subscription; some of these new models appear to better meet the needs of particular client groups.

XYZ is a newly acquired by Company JL, which uses a transactional licensing model where the licensing fee is charged per transaction via the Internet. Transactional licensing model has gradually become popular in the software industry due to the trends of online transaction growth. The value chain from end users to customers and then to XYZ revenue is expected to grow with the increase in online transaction volume.

XYZ's product is geared primarily towards North American-based Parks and Recreation centres, which have a very modest record of using software in their transactions and relationships with clients. This leaves a vast untapped area for companies such as XYZ but the choice of licensing model is critical because few Parks and Recreation centres, with their modest funding from municipalities or cities can afford large upfront fees for software usage or commit themselves to any licensing models that are too constraining over the long term.

Based on our strategic analysis the transactional licensing model is recommended for XYZ as the most suitable software licensing strategy. This recommendation is not only based on an analysis of XYZ's in-house technical capabilities for software development but also the larger industry trends and the particular needs, constraints and opportunities in the Parks and Recreation sector. The new model will meet XYZ's goal of increasing licensing revenue by 20%, aligning itself to customer values, and increasing transaction volume by 40%. Moreover, complexity of various feature licenses and dependent support fees will be eliminated in a transactional licensing model. This study further recommends that a gradual transition to a full transactional model is a key to ensuring success for both Company XYZ and its customers.

This project is dedicated to my parents, Kung Yang Edward Lee

and Pei-Hua Agnes Cheng Lee, for their love, encouragement

and their unfailing support in challenging times.

Liko Lee

I dedicate this project to my parents, Chia-Ching Su

and Shiow-Maan Chuang Su. Without your patience, support,

and most of all love, the completion of this project would not be possible.

Jean Su

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1 INTRODUCTION

Imagine a gloomy Sunday morning at a community centre. The door is still locked, yet the crowd surrounding the centre warms up the atmosphere with the aroma of coffee and donuts. The half-hearted attempts at conversation, and the mumbling and murmuring signal that some of these eager souls did not quite catch a full night's sleep. A few, obviously experienced, recline in camping chairs, while others stand impatiently. It is not uncommon for this scene to be replayed every time a community centre offers its new curriculum or facility booking schedule; this may be annually, seasonally, or even monthly. In order to accommodate the enthusiastic public, the community centre schedules additional staff and prints extra forms to be filled out by hand, a tedious process in this day of computerization.

Software companies such as XYZ seized the opportunity presented by scenarios such as the above and produced a series of software products that solve many of the recurring problems community centres encounter in their daily operations. Unlike tangible products, the primary cost for a piece of software lies in the initial research and development, with little variable cost to reproduce it. Without proper monitoring mechanisms, however, software can be illegally duplicated and used without compensation. Recognizing the unique characteristics of software, companies have developed a variety of licensing models to better govern their intellectual property. As the software industry evolves and technology advances, different flavours of licensing models become available.

This applied project reviews Company XYZ's internal and external environment and competencies, analyzes the company's software licensing options in the Parks and Recreation community service software industry, and recommends the most appropriate licensing strategy.

1.1 Background

1.1.1 The Company

Company XYZ was founded in 1976. A group of six people built a distribution business in Canada for mini-computers from California, USA. The first office was opened in Burnaby, British Columbia. Since that time the company has branched out into software. In the last 10 years, XYZ has seen significant growth of over 30% in revenues. The company's approximately 130 employees brought in revenues of $16.7 million in 2002. Company XYZ was ranked among the first fifty companies on the T-Net 100 Awards list of the top technology companies in British Columbia in 2003. This was the fifth consecutive year that XYZ made the list

XYZ is a recognized leader in community service management software. More than 700 community agencies purchased XYZ software and used it to improve organizational efficiency and customer service.

In 2004, JL, a company that specializes in online participatory activities and events such as fundraising, acquired Company XYZ. Three product lines were added to Company XYZ's product list. One of the products used the transactional model as opposed to the perpetual model that Company XYZ was accustomed to using. Company XYZ became the main division of Company JL for providing community solutions.

1.1.2 The Product

XYZ released a new version of its client-server product in July 2004. The product contains the following 6 modules: program registration, Internet registration, membership sale, point of sale, facility-booking, and league registration. All of them use client-server architecture. Currently, all modules are licensed on a perpetual basis.

- Program Registration module

  This module allows people to register in courses and arrange to be put on a waitlist if there is no space left in a course. A program registration module license costs $1500 CAD per employee user.

- Internet registration module

  The module provides 24/7availability for public users to register courses through the Internet. An Internet registration server license costs $5000 CAD.

- Membership sale module

  The module allows customers to purchase membership in leisure activities. It was modified to allow XYZ's product to better meet YMCA's business needs of membership sales. A user license costs $1500 CAD.

- Points of sale module:

  The module provides single item sales without the need for opening an account. A user license costs $1500 CAD.

- Facility booking module

  The module provides booking or reservation functionality for a facility or equipment. A user license costs $1500 CAD.

- League scheduling module

  The module provides scheduling of sports leagues for community centres. A user license costs $1500 CAD.

XYZ's product targets the Parks and Recreation and YMCA markets in North America. Program registration module, league registration module, Internet registration module, facility booking module, and points of sale module are designed for Parks and Recreation market. Membership sale module and program registration module target are aimed at YMCA markets.

1.1.3 The Market

The Parks and Recreation market in North America is approximately $36 million US, and the YMCA or non-profit market is $57 million US (Marketing Communications Team at XYZ, 2003). However, the estimate considers only revenues generated from perpetual licensing of software products and maintenance programs. It does not include an estimate of online transaction revenue from self-serve products offered to potential clients. With an annual estimate of $10 per household on leisure activities, North America Parks and Recreation and YMCA market in total generate a minimum $2 billion US (Marketing Communications Team at XYZ, 2004).

1.2 Licensing Models

Three basic software licensing models are identified below as options of XYZ's new licensing strategy. They are perpetual, transactional, and subscription model, each of which has characteristics that affect the interactions and relationship between vendors and customers.

1.2.1 Perpetual Model

Perpetual model is the conventional licensing method for software products. Customers negotiate with software companies on product charges and pay license fees on a one-time basis. The model is usually coupled with maintenance programs for

future product upgrades or service packs. Customers own the software in the sense that the product does not stop running even when no maintenance agreement has been achieved.

Depending on the availability and sophistication of customers' IT infrastructure and staff, software can be operated in different architectural environments. Traditionally, the perpetual model applies in a client-server IT architecture. In a client-server environment, customers supply their own IT infrastructure, maintain their own databases, and host their own websites where applicable. Software is initially installed on every server and workstation individually. When the service packs are released, an upgrade has to be applied on each server and workstation as well. Currently, XYZ's product is only available to operate in the client-server environment.

1.2.2 Transaction Model

Transaction model, also known as pay-as-you-go licensing scheme, considers a software product as a service for customers. As a result, it charges end users service fees once the transaction is completed through the software. This model is effective in relating a software price to actual product usage because the more customers use the product the more transaction fees are charged.

This model is suitable for application under the following IT architectures:

1.2.2.1 Hosted

In a hosted environment, minimum IT infrastructures are required at a customer's site. JL manages customers' databases and hosts their websites for the online applications. Customers log on to the Internet locally for over the counter registrations and transactions.

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1.2.2.2 Hybrid

As the name indicates, the hybrid environment is a combination of both client-server and hosted environments. While customers maintain their own over-the-counter registrations and transactions, JL hosts web applications and online transactions.

1.2.3 Subscription Model

Subscription model allows customers to use the software by paying a recurring fee. If the fee is not paid, then customers lose the privilege of accessing and using the software. The model allows a software company to receive continuous cash inflow from customers as long as the software is in use by customers. In addition, tracking software product usage is easily achievable through a subscription process. Like the transaction model, the subscription model is suitable in hosted and hybrid environments.

1.3 Purpose and Scope of Analysis

This project intends to recommend a new licensing strategy to company JL regarding the following three aspects: 1) How can Company JL increase overall revenue by twenty percent assuming that the existing licensing model will not change pricing? 2) Will Parks and Recreation customers prefer a transactional licensing model (versus the perpetual model currently being used)? 3) How can Company JL increase transaction volume by 40%?

1.3.1 Company Revenue Growth

In terms of increasing revenue by 20%, data from current charges to customers were collected and categorized into four customer groups, according to city population. In addition, Company JL's general manager provided data of actual transaction income from some customer samples. Using the data, the project team will present a

subscription model and two transaction models (hosted and hybrid), each of which has four fee pricing options. These options will be compared to the current model (perpetual) in terms of net revenue and a five-year revenue forecast. The combination of the licensing model and pricing option that yields the highest revenue will potentially be the recommended revenue strategy pending further analysis.

1.3.2 Customer Preferences

Customers' impressions of transaction licensing model will be obtained through phone interviews with existing customers. The project team's target is to receive customers' perspectives of software products, priorities in operation, and their preferences in online transactions. A SWOT analysis and a strategy canvas analysis will be used to identify important values that will determine key acceptance criteria of new licensing strategy from customers' perspectives.

1.3.3 Transaction Volume Increase

Last but not least, the project will discuss the strategies to increase transaction volume. The project team will conduct interviews with Company JL's general manager and pricing executives to collect internal data on corporate and business-unit level licensing strategies and future operating directions. Customer and end user surveys will be distributed to gain a better understanding of what drives buying behaviours in this market. In addition, we will gather information on competitors in the industry and use a variety of analytical tools, including value chain analysis and strategic group map of competitors to provide a solution to maximize transaction volume.

2 EXTERNAL ANALYSIS

For a licensing strategy to be relevant and effective, it is important to examine the environment in which it will be applied. This chapter discusses the external environment within which Company XYZ operates and wishes to develop a new licensing strategy. This includes the study of the industry, market, major competitors, as well as the prospects for both and XYZ and its customers with regard to the three basic licensing models.

2.1 An Overview of the Parks and Recreation Industry

2.1.1 City Population

A Parks and Recreation board is typically the department within a city that is responsible for services and amenities offered by public parks such as community centres, playgrounds, pools, and skating rinks. Through recreation/education programs and facilities provided to the public, the Parks and Recreation boards across Canada support and maintain a wide spectrum of recreational, social, and cultural activities to meet different pursuits of citizens of all ages.

Because cities of different sizes have different resources and requirements for public services, the Parks and Recreation market is broken into four basic groups based on city population. The Small Customer group consists of cities with up to 25,000 people; the Medium Customer group includes cities with 25,000 to 50,000 people; the Large Customer group includes those cities with 50,000 to 100,000 people; and the Strategic Customer group includes cities with over 100,000 people.

2.1.2 Adoption of Technology

More than 50 percent of Parks and Recreation customers continue to use the same software application from the same vendor for more than 5 years (POLLARA report 2004). This indicates that customers in this industry do not have a high switching tendency. In addition, customers in the parks and recreation industry are typically late adopters of technology. In fact, 42% of Parks and Recreation customers have never purchased recreation management software before. These customers do not tend to request new technology from software vendors; instead, vendors usually push new technology to them.

As for end users, the survey result reveals that 44% of users never purchased a product online before. Moreover, 75% of users never registered for a course through a community centre's online service system. As a result, community centre online services are still at the stage of attracting a majority of consumers to adopt.

2.1.3 Convenience of Dropping-In for Leisure Programs

Our end user survey revealed that 78.8% of users had experience of dropping in for leisure activities at least once in a year (Figure 1 below). However, only 47.8% of them had registered for a course at a community centre before. This result demonstrates that most consumers are used to drop-in for leisure activities rather than planning ahead and registering for a course. Furthermore, more than 90% of users who had experience of registering for a course at community centres are infrequent consumers (between once and six times each year). As a result, stimulating consumer loyalty for dropping-in end users will be one key factor to expand transaction volume in this market.

Figure 1 **Frequency of Registering Versus Dropping-In for Leisure Activities**

Frequency of registering versus dropping-in for leisure activities

Counts (%)

☐ Drop-in a leisure activity ☐ Register for a class at a community centre
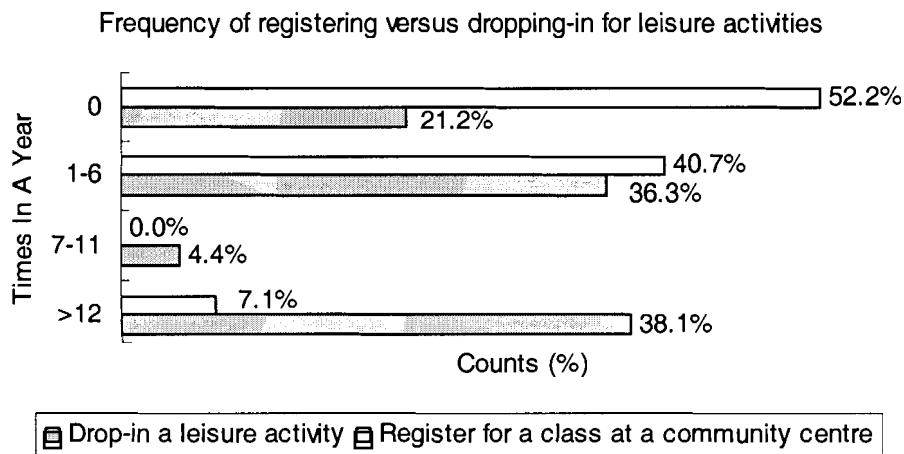
2.2 PEST Analysis of the Industry

PEST is the acronym for political, economic, social-cultural, and technological. A PEST analysis is a widely used business tool that examines an organization's external environment from these four perspectives. The following is a PEST analysis of the Parks and Recreation industry that Company XYZ operates in.

2.2.1 Political Forces

Parks and Recreation departments' operations are usually strongly influenced by a city's heightened state of maintaining a good image during election season. In order to eliminate potential errors that would interrupt a city's on-going operations, departments are likely to hold back from making any changes to their existing software applications. In a client-server environment, software vendors need to sustain good communication with customers to schedule an appropriate time for regular maintenance. It should be noted that in a vendor hosted environment, maintenance will be deployed at centralized servers administered by vendors. The potential down time is therefore highly minimized.

Furthermore, the offer of services in multiple languages by a number of Canadian cities, whether for political or practical reasons, generates additional business opportunities for software vendors to create multilingual versions of their products in the market.

Lastly, large and strategic customers possess such complete Information Technology (IT) infrastructures that they require a thorough test cycle in house before applying any new software or service packs. Software implementation and maintenance processes are therefore more complex for both vendors and customers to coordinate.

2.2.2 Economic Factors

As in many other industries, business for the Parks and Recreation industry is seasonal. Registration volume may peak in summer and hit a low point in winter, rise in the beginning of a season and diminish towards the end. This characteristic requires Parks and Recreation departments to temporarily hire part-time staff to accommodate busy registration periods. Extra wages produced from the hiring increases departments' operating expenses.

2.2.3 Socio-Cultural Factors

The emphasis on availability of computers in schools and on cultivating ICT skills among students has increased over the years. An OECD (Organization for Economic Co-operation and Development) report indicates that the percentage of Canadian students using computers at home or school is among of the highest in the world[1]. This indicates that much of the public will soon have the technical skills to engage in computer-based transactions; with the increasing ease of access to computers the use of computer and Internet technology more and more people are incorporating the use of

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[1] http://www.oecd.org/dataoecd/25/4/1825818.pdf

computers into their daily lives. End users with increasing technical skills will be more

likely to use the kind of online services that XYZ intends to provide.

According to the Canadian Community Health Survey 2000/01, conducted by the

Canadian Fitness and Lifestyle Research Institute, the percentage of the population that

is physically active has increased by 10% over past ten years, and the percentage is

expected to increase continuously. The research points out,

> In 1994/95, 38% of these people were at least moderately active. Six years later,
> that proportion had increased to 43%.[2]

In a similar survey conducted in 2003, 99% of Canadians reported mild to strong positive

attitudes toward health benefits achieved by participating in recreational activities[3]. This

rating increased from 95% in just a year. These reports indicate that Canadians'

awareness of healthy lifestyle is increasing over the years. As the public become more

aware of the importance of a healthy lifestyle, more people will become active in

recreational activities. As a result, more recreational programs will be demanded and

offered.

On the business cultural front, according to an IDC white paper published in

March 2004, of all participating software vendors, 75% reported revenues associated

with perpetual licensing models[4]. This conventional method for software licensing is no

different from that of selling products such as vacuum cleaners, where a transaction is

finished when goods and payments exchange hands. Even though both vendors and

customers are culturally familiar with and accustomed to this type of transaction, the

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[2] http://www.statcan.ca/Daily/English/020508/d020508a.htm
[3] http://www.statcan.ca/Daily/English/030903/d030903a.htm
[4] "The Future of Future Licensing: Software Licensing Under Siege", IDC White Paper, March 2004: 4.

general trend in the industry is to move towards accepting subscription or transaction licensing models. Section 2.4 will discuss further the pros and cons of each model.

2.2.4 Trends of Online Technology

Two aspects need to be considered as far as the increasing popularity of cyberspace is concerned. The first is that enterprises, new and old, are increasingly including web site access as part of their services to customers. The second is the increasing number of online users and their willingness to participate in online transactions.

In 2003, 64% of Canadian households reported at least one member who used the Internet regularly from any location[5]. This figure was 59% in 2002, a 5% increase in one year. In addition, the total household expenditures on shopping online increased 25%, from $2.4 billion in 2002 to $3.0 billion in 2003[6]. In terms of the number of orders placed online, Canadian households placed a total of 12.1 million orders in 2003, an increase of 27%, from 16.6 million in the previous year[7]. The growth rate of online transactions has surpassed that of the number of household Internet access, from both dollar amount and quantity aspects.

In addition to customer needs, service providers also continue to improve online technology. Microsoft introduced .NET framework in 2001, which has enhanced the ease of web development. Other web scripting technology also contributes to ease of developing web applications. Security is also addressed in online technology improvement in order to earn end users' confidence in online transactions.

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[5] http://www.pwgsc.gc.ca/onlineconsultation/text/statistics-e.html
[6] http://www.statcan.ca/Daily/English/030918/d030918b.htm
[7] http://www.tbs-sct.gc.ca/rma/dpr/03-04/SC-SC/SC-SCd34-PR_e.asp?printable=True

Our end user survey also indicates that 61.9% (Figure 2 below) users prefer to pay for their transactions by credit card or debit card. This result shows that more users will have the ability to pay for their transactions online when web technology allows credit card and direct pay over web applications.

Figure 2   End User Preferred Payment Method at Community Centres (N=113 people responded)

Preferred Payment Method

Credit Card, 28.3%

Cash, 34.5%

Direct Pay, 33.6%

Cheque, 3.5%
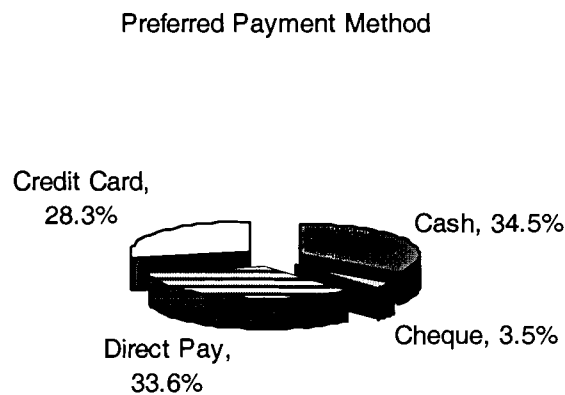
2.3 Competitive Forces

2.3.1 Competitors

Company JL is a dominant player in the parks and recreation market. The company's product strategy focuses on opportunities in market penetration and product development. Company JL has competitive advantages in maintenance support and ease of implementation for its products. Among all services provided, JL's 24/7 customer service support receives the highest praise from its customers. Ease of implementation is another competitive advantage of Company JL thanks to its complete training and consulting programs packaged with software sales. However, pricing of

Company JL products is higher than that of its competitors. As a result, some low-end customers cannot afford Company JL's products.

Four major competitors for XYZ are DDD, CCC, TTT, and VVV[8]. The strategy canvas (Figure 3 below) compares XYZ to its four competitors in five categories. XYZ scores the highest in maintenance category while TTT has the best price competitive advantage among five vendors. Although TTT has low cost advantage at the low end Parks & Recreation market, its product has the weakness of having fewer features and less flexibility than that of XYZ for customers. This lack of flexibility places a restriction on potential users; as a result, ease of implementation offering for TTT is the lowest among five competitors.

DDD targets small customers who cannot afford to maintain IT infrastructures in YMCA or the non-profit market. As a result, it provides a transactional licensing model that alleviates software deployment problems for customers. However, long-term costs for customers to maintain DDD product are high because the vendor continues to charge customers a certain percentage of their annual revenue. When customers' business grows, their burden of software costs increases proportionally.

Company CCC is another competitor in the non-profit market. Its product does not have high price competitiveness. However, CCC owns several integrated fitness management solutions and they have a significant number of customers in the membership sales area. CCC and XYZ products are both recognized for their ease of use.

Company VVV targets customers on the east coast of United States and the U.S. military force recreation services. VVV's product strategy is to follow the trend led by

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[8] Competitor names are masked.

Company JL. Although VVV's product also has similar strengths, such as a broad list of features for customers to select from, its product technology is old. Therefore, scalability and capability for its product is not as good as XYZ product.

Figure 3   Strategy canvas of Parks & Recreation Software Vendors

The Strategy Canvas of Parks & Recreation Software Vendors

Factors of Competition

—◆— XYZ —◆— DDD —▲— VVV —■— TTT —✳— CCC
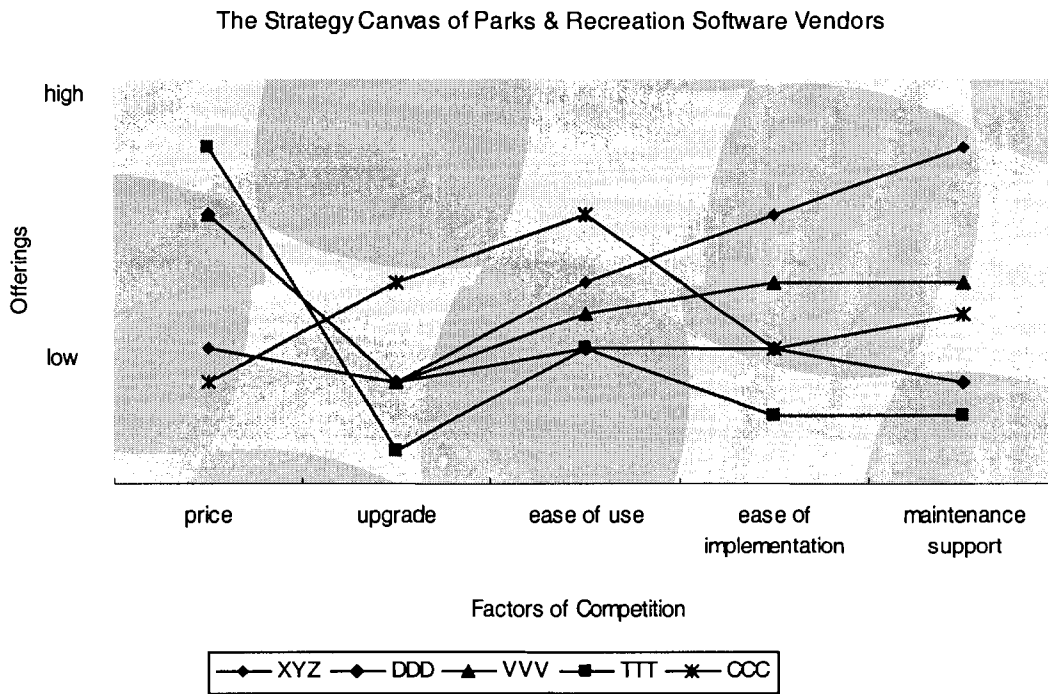
Data Source: Marketing Communications Team of XYZ, 2004.

2.3.2 Threat of New Entrants

Barriers to enter the Parks and Recreation market are low to medium. One reason for the low barrier is the low cost of software development. A small company of one or two developers can create a product that can be viable in the market place as long as it meets some customers' needs. However, after sales services such as maintenance programs or training sessions are what differentiates software products. New entrants without a great reputation for training or maintenance programs face a certain degree of resistance in the marketplace.

New technology available in the Parks and Recreation market also encourages new entrants to enter this sector since incumbents need to pay a price to convert their existing products into ones that incorporate new technology. When more new entrants adopt subscription or transactional licensing models, incumbents will need to re-evaluate their existing licensing models in order to catch the trend.

On the contrary, a variety of competitors in different quadrants of a price competitiveness and quality grid increase the barriers to a medium level for new entrants to this market. The price competitiveness and quality grid (Figure 4 below) indicates that XYZ is at high quality and price competitiveness quadrant. Most existing competitors are at high price competitiveness quadrant by providing low cost product to customers. As a result, a new entrant will face fierce price competition. Moreover, if a new entrant is going to shift to high quality quadrant, XYZ and CCC existence will cause a new entrant to spend additional time and energy on differentiating its product quality from existing incumbents' products.

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Figure 4   Price-Quality Grid for Company XYZ Products

Somewhat 8.0
Excellent

Price Competitiveness

♦ TTT

♦ VVV

♦ XYZ

7.5

♦ DDD

♦ CCC

Moderately 7.0
Excellent   7.0   8.0   9.0

Moderately   Somewhat
Excellent   Quality   Excellent
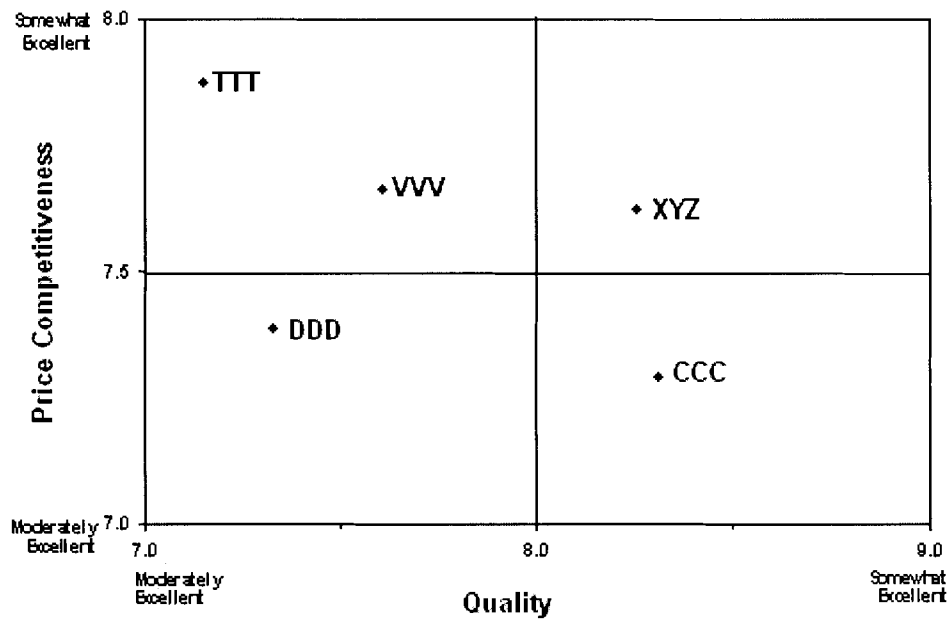
2.4 Licensing

2.4.1 SWOT Analysis

SWOT stands for strengths, weaknesses, opportunities and threats. A SWOT

analysis is a well-known business tool for strategy development. It identifies

competencies and issues involved in a strategy under discussion and summarizes the

prospects and potential problems for the benefit of the parties concerned.

The following SWOT analysis concerns the strengths, weaknesses,

opportunities, and threats associated with perpetual, transaction, and subscription

licensing models from both the vendor's and the customer's point of view.

2.4.1.1 Strengths

Under perpetual licensing, software is paid with a big lump sum upfront. Vendors can realize the revenue immediately and take advantage of the time value it generates for other investments. Since the total cost of ownership is pre-negotiated, customers on the other hand have better control over software budget for the year. In addition, perpetual licensing is the conventional method, which both vendors and customers are accustomed to. The concept is easier for vendors to explain and for customers to accept.

Transaction licensing model calculates software usage on a per transaction basis. Vendors receive a continuous cash flow, which increases with the transaction volume as more users participate. This is predominantly advantageous for a potential growing market such as the online segment of the business. Moreover, since each usage is paid at the time it occurs, vendors have much tighter control of the legitimacy of customers' license privileges. In an online environment where centralized servers are hosted and maintained by vendors, transaction licensing allows vendors to standardize software upgrade versions and services. From customers' point of view, this pay-as-you-go model provides greater flexibility in terms of allocating resources and budgets, as well as providing options for making a vendor switch.

Subscription licensing allows unlimited usage of the software on a per subscriber basis. Vendors receive even and consistent cash flow, which renders financial stability for business operations over the subscription period. This model also offers ease of licensing enforcement since all services could be cut off once the subscription has expired. The possibility of pirate product usage is therefore highly limited. Compared with transaction licensing, subscription licensing provides customers with similar flexibility but without the additional costs that may arise as transaction volume grows

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beyond a certain level. There seems to be a gradual shift towards subscription-based models. As the article "Software Pricing," points out,

> Numerous organizations have had good experiences with subscription licensing. In a one-year experiment, for example, the IT department at the University of Florida achieved access to up-to-date software, predictable costs, and increased bargaining power, as well as the ability to walk away from the deal at any time for any reason. Says Mike Conlon, the University of Florida's director of data infrastructure: "We didn't put out a big pile of money to get a particular piece of software. And the vendor has a different kind of incentive to be responsive to us – they don't have our money."[9]

2.4.1.2 Weakness

One major downside of perpetual licensing for vendors is the uneven yearly cash flow that weakens the company's financial stability. The one-time payment is recognized at once in the books with significantly smaller subsequent yearly revenues from service and maintenance fees; under this model, the company's future financial well being is difficult to predict. This model also hinders revenue growth even if the number of uses and transactions increases dramatically. Vendors cannot benefit from the success customers derive from using the products. Once the software is purchased, customers are locked in to the product with a single vendor for all future services and support. With a huge upfront payment at stake, customers are forced to commit to the software even if they are unsatisfied with their purchases. The high-pressure sales tactics that often accompany the marketing of perpetual licenses often leaves a bad taste in the mouth of the customer. Often, "To disgruntled customers, this phenomenon is known as "lie until they buy.""[10]

Conversely, under the transaction model, customers' low switching cost presents a problem with vendors. The bonding between vendors and customers is considerably weakened when the relationship only exists when a transaction is being made. Since

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[9] IOMA. "Software pricing." The Controller's Report, Issue 6 (Jun 2004):8-10.
[10] Ibid.

customers do not need to commit to a product, they are free to switch vendors at will. Another disadvantage for vendors is that sales compensation is difficult to define since a part of the compensation is embedded with future transactions that cannot be determined until the transactions are made. As for customers, it is difficult to allocate yearly software budgets since transaction volume cannot be easily predicted, especially in a growing market. Furthermore, transaction fees can potentially accumulate to a huge amount, which makes this model very unattractive for customers that have large transaction volumes or single transactions with a large dollar amount. Finally, when low transaction volume turns out to be the case, customers are still charged a minimum fee. In a sense, this is a significant drawback for customers, as this model appears to protect vendors' welfare much more aggressively than that of customers.

Under subscription licensing, diverse customer needs may lead vendors to create complex subscription categories and require more sales resources to handle increased sales-related activities. Vendors in this model are more susceptible to unexpected costs from the extra resources allocated. On the other hand, customers who hire part-time employees may be charged with unnecessary duplicate subscription fees.

2.4.1.3 Opportunity

Vendors using the perpetual licensing model will soon be able to take advantage of new tracking technology to enforce license compliance. The technological advancement will enable vendors to deter customers from using the software illegally beyond the pre-negotiated coverage. Perpetual licensing model provides customers with opportunities to expand their business without additional costs involving software licenses after purchase.

As mentioned in an earlier section, transaction licensing is particularly beneficial for vendors in growing industries where additional transactions are derived from the increasing market size that translates into extra revenues. The Parks and Recreation sector is typically a late adopter of technology. However, with e-commerce still an up and coming business model that continues to attract new Internet users from the general public, online transactions are expected to be accepted to a greater extent in the near future. Moreover, external events can trigger additional user participation, thus extra transactions, allowing innovative marketing schemes to receive bigger rewards. For example, marketing efforts associated with a health and fitness campaign orchestrated by the city can evoke citizens' sudden interest in signing up for a recreational activity. A major opportunity for customers that comes with the transactional licensing model is that it allows customers with limited or no IT budgets to enter the online business. This is because customers no longer need to acquire their own IT infrastructures to maintain the application after purchase. The cost of entry is significantly diminished.

With subscription licensing becoming increasing popular in recent years, software vendors that adopt this model will expect to face less resistance from customers over time. This presents a good opportunity for vendors that are considering an alternative licensing model. In addition, this model widens access for vendors to monitor customer and end user behaviours. This accessibility enables more focused marketing plans to be developed. As well, subscription licensing allows customers to maximize their usage of software when transaction volume does not affect the dollar amount paid for software license during a period of time.

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2.4.1.4 Threat

The characteristics of perpetual model cause vendors' financial situation to be less stable as it may involve highly fluctuating levels of cash flow over the year. Companies may run into trouble sustaining financial health during economic downturn. Customers, on the other hand, may be greatly affected if the vendor they partner with goes under. With a large amount of payment already sunk in up front, customers may not be able to salvage any of it from the vendor in case of bankruptcy.

In transactional licensing model, the cost structure and process are more transparent, which in turn permit customers more negotiating power. The low barriers of entry result in high competitiveness in the industry and therefore reduce customer loyalty. This problem is worsened when profit margin is limited by credit card payment processing charges that vendors have to cover per transaction. In order to secure customers, vendors need to look beyond competing on price and devote resources towards the differentiation of products in other areas. Customers in this model may feel threatened by the fact that they do not receive end users' payments directly; instead, the payments come in a form of a check from vendors after transaction fees have been deducted. The fear of losing control of their own revenue can hinder customers' adoption of this licensing model. Furthermore, accounting legitimacy problems can occur when customers' revenues cannot be recognized till the check is issued from vendors.

Subscription licensing model has become popular and has been adopted by more vendors in recent years. However, the threat of customers switching from one vendor to another increases when there are more subscription products available in the market. On the contrary, customers who have adopted subscription products cannot switch to a different vendor when newer subscription categories are available in the industry.

3 INTERNAL ANALYSIS

This chapter contains an internal analysis of Company XYZ, which was acquired by Company JL in 2004. This analysis will address Company's culture, product, value chain, and revenue distribution under perpetual licensing model.

3.1 Culture

As a division of JL Company, XYZ has approximately 160 employees. A sales and marketing team handles sales and negotiates with customers. Support team and consulting team are responsible for training programs and product implementation for customers.

Since the product adopts perpetual licensing strategy, customer annual maintenance programs and training sessions are two major ongoing revenue resources of the company. As a result, customer values are major focuses of XYZ division. "Under promise and over delivery" is the spirit that company employees follow. Furthermore, product development would develop new features that extend customer values but with minimum return on investment.

Contrary to Company XYZ's perpetual licensing strategy, Company JL has adopted a transactional licensing model. JL's core competency is in web application development, which enables public users to register sports events over the Internet. After being acquired by Company JL, XYZ faces the potential transition of moving its licensing strategy towards transactional licensing model. Under this model, service packs can be applied directly onto the centralized servers hosted by XYZ, rather than to

upgrade servers that are scattered at various customers' sites. This enables XYZ to respond to customers' requests much more promptly; consequently, a change of pace is expected in the developing culture. However, it is certain that the core spirit of customer values will continue to sustain even in transactional licensing model.

3.2 Product Strategy

Company XYZ has been in the Parks and Recreation industry for more than 20 years. The product line has expanded to include 34 licenses for various features. For example, Program registration module contains one basic program registration license while the electronic funds transfer functionality within the module consumes a different license. All features adopt perpetual licensing model including the Internet registration feature. Customers are expected to purchase and set up hardware themselves prior to deploying XYZ product.

3.2.1 Product Generation

3.2.1.1 Product Differentiation

In terms of new feature development, XYZ incorporates enhancement requests directly from existing customers or through account managers, as main drivers for upcoming feature inspiration. Annually, new features that more closely and directly satisfy customer needs are added to the company's product; also these are combined with brand new modules designed to explore new markets. Because XYZ's product offering grows with customers over time, it is differentiated by its ability to meet customers' needs and also through the company's thorough customer support system.

3.2.1.2 Product Evolution

XYZ's product has evolved mainly from gradually answering various business needs that customers pursue through feature upgrades. Moreover, when a new technology is mature and commercialized by Microsoft, Company XYZ would adopt such technology in order to sustain its partnership with Microsoft as well as to evolve its application architecture.

Currently, web application is perceived as the direction for the next generation XYZ product. A quicker development cycle is expected when Company XYZ focuses on releasing online products. This is because XYZ would host customer software applications that allow upgrades to be accomplished without having potential complications with the IT infrastructure at client site.

3.2.2 Marketing

In general, the marketing strategy of Company XYZ is to sustain a long-term customer relationship and to construct win-win values with customers. A strong customer relationship is achieved by constantly providing new values to customers through features and services, even though these efforts may not directly translate to more revenue. XYZ believes that it is through the strong relationship that will help customers to succeed and in turn benefit XYZ in the long run especially under the transactional licensing model. For example, an affinity program was developed for a strategic customer even though the industry does not consider such a feature as having meaningful business potential.

XYZ has a complete deployment package that helps customers adopt the new product. XYZ treats every deployment as a project and manages it accordingly. A project manager is assigned to each deployment for each customer to help them build

the new system with elements that include work process changes, human resources management, software usage training, and even a complete marketing plan for the online services. This effort helps customers to align the new technology with their organizational goals.

With the marketing plan in place, XYZ's current Internet registration adoption rate for client/server online modules ranges from minimum 15-20% to maximum 60-90%. Conversely, without the marketing plan, adoption rate for existing hosted product inherited from Company JL is only around 9%. Marketing efforts and deployment process contribute greatly to this discrepancy.

3.2.3 Product Licensing

Very often, organizations would favour profit-generating operations when it comes to resource allocation; XYZ is no exception. XYZ's customer focused product strategy creates various revenue opportunities. As a result, new feature development traditionally receives more attention and resources. Even though licensing enforcement scheme is considered to be important, it is not implemented in the product because it does not generate revenue directly.

3.3 Value Chain

The value chain describes the activities within and around an organization, which together, create a product or service (Johnson & Scholes, 2002). While selecting the most appropriate licensing model, XYZ needs to take into consideration how value is created and managed within the organization as well as how value is perceived in the customer value chain. Whether or not a licensing model will generate the forecasted revenue depends not only on the margins that can potentially be extracted, but also on

customers' overall willingness to pay.   Figure 5 below illustrates Company XYZ's
internal and external value chain.

Figure 5   Internal and External Value Chain of Company XYZ
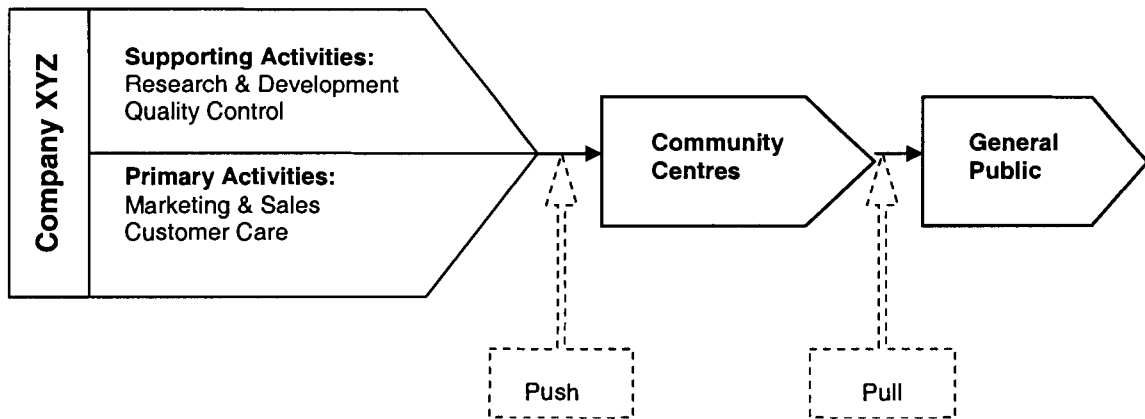
3.3.1 Sales

3.3.1.1 Customer Value Alignment in a Push-Then-Pull Relationship

As mentioned in section 2.1.2, because the Parks and Recreation industry is
conventionally late adopter of new technology, the sales relationship between software
vendors and customers is one of 'push'.   In this 'push' relationship, software vendors
actively push the technology on customers, often initiating a discussion on valid
business cases for adoption.   After the initial technology is adopted, vendors will
continue to push new technology as it becomes mature and vastly accepted in the
industry.

Once customers adopt the product, the relationship turns into 'pull'.   Under
perpetual licensing, upgrades, training programs, and maintenance become the main
sources of vendors' revenue after the initial one-time licensing payment is made.   XYZ's
customer focused strategy encourages customers to provide enhancement requirements

to be incorporated in these ongoing services, which will potentially lead XYZ's product development. In other words, customers pull XYZ for features that are to complement their business needs.

3.3.1.2 End User Value Alignment in a Pull Relationship

Further down the value chain, the relationship between Parks and Recreation customers and end users (fellow citizens) is one of 'pull'. In this pull relationship, citizens request services from Parks and Recreation centres to be delivered or made available (Figure 6 below).

According to a POLLARA market research conducted in fall 2003 (Figure 6 below), when asked to rate the impact of trends on business, 75% of respondents expressed that 'increased public demand for service offerings' has had a significant (36%) or moderate (39%) impact on the way their departments conduct business. Following this factor, 'better management reporting requirements' and 'full cost recovery for services' are both rated at 61% of having had either significant (27%) or moderate (34%) impact on business. This result indicates that satisfying citizens' requests for services leads the chart as the most important impact, which influences Parks and Recreation centres' operating directions.

Figure 6   Impact of Trends on Customer Business

Impact of Trends on Customer Business

Increased public demand for service offerings	36%	25%
Better management reporting requirements	27%	39%
Full cost recovery for services	27%	39%
Increased focus on security	27%	44%
Focus on profit making	23%	51%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

☐ Significant ■ moderate ☐ Others
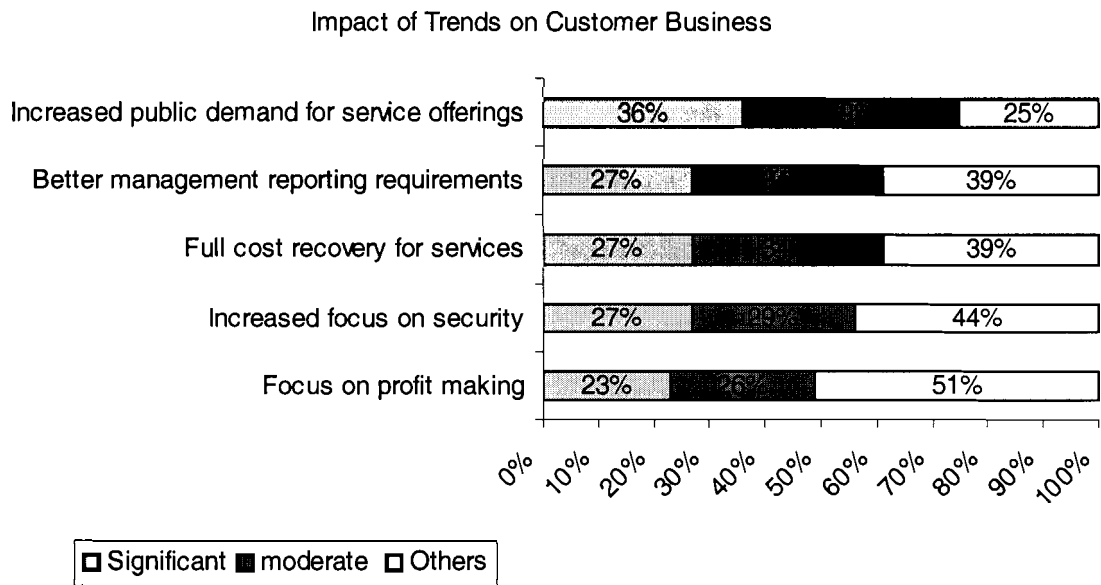
Data source: POLLARA, 2003

As seen in section 2.2.4, household online transactions increased on an average of 26% in just a year in 2003. Parks and Recreation customers should expect an increasing pull from the public for making transactions on the Internet available.

3.3.1.3 Sales Compensation

Sales people represent vendors to initiate direct communication with customers. Being at the front line of customer contact, sales people control what products and services to be introduced and in what priority. A vendor's compensation policy for promoting a particular set of products and services is normally tightly aligned with its current sales, marketing, and company strategy.

Under XYZ's current perpetual licensing model, the total revenue from each customer is well defined. Therefore, each individual sales person's compensation can simply be a set percentage of the revenue generated from each sale. Other than sales compensation on top of a base salary, XYZ also implements a sales quota to motivate

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quality performance. For every quarter, each sales person is assigned a sales target in terms of volume in dollar amount. Sales people who exceed the target receive a bonus from the company.

3.3.2 Research and Development

Company XYZ's product strategy is inclined to be high in development and low in research. The majority of Parks and Recreation customers focus on business needs rather than emergent technology adoption. As a result, Company XYZ does not have much incentive to research in new technology. However, the company continues to update its product when a technology becomes mature in the IT industry.

In addition, if a new business practice or licensing model becomes popular in the Parks and Recreation market, Company XYZ will consider adopting the same model whenever applicable. For example, the fact that Internet popularity pushes online technology to XYZ product triggers managers to allocate more resources on researching new web application opportunities.

3.3.3 Customer Care

XYZ's value creation does not stop at the point of sale; instead, it starts even before the product is sold. Presale consulting is one of the many examples that demonstrate this attribute. Some of XYZ's services include product implementation, technical support, training, product upgrade and maintenance, and consulting.

In a customer satisfaction survey from POLLARA report 2003, respondents were asked to rate the importance with a variety of aspects of XYZ's products and services. Figure 7 below indicates that 'technical support' (rated 9.87 out of 10), 'product quality'

(9.8), and 'features and functionality' (9.53) were identified as the top three aspects that XYZ's current customers perceived as most important to their organizations.

Figure 7   Impact of Overall Aspects of Service

Importance of Overall Aspects of Service
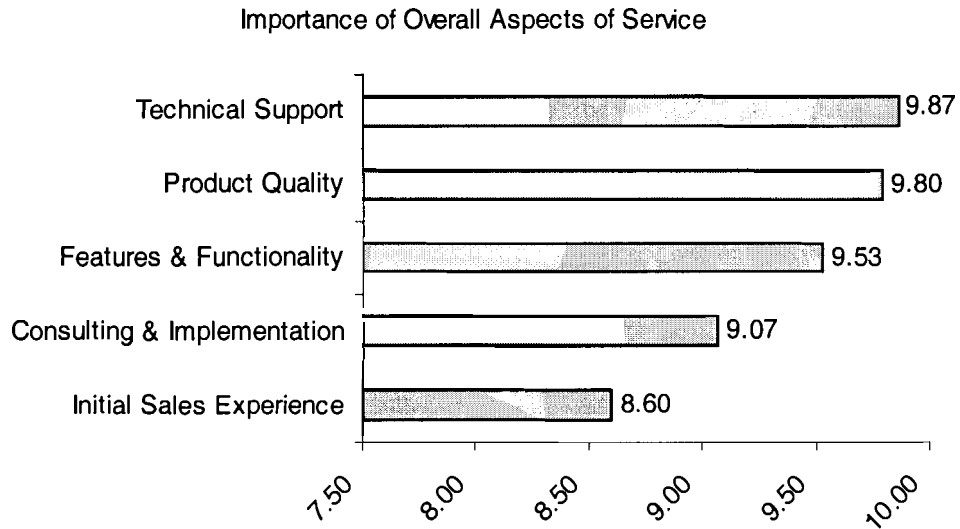
Data source: POLLARA, 2003

In a separate question, customers were asked to rate their satisfaction with XYZ's products and services, according to their experience. 'Technical support' (rated 9.71 out of 10) followed by 'initial sales experience' (8.7), 'corporate image' (8.64), and 'product quality' (8.47) constitute the top four aspects that achieved the most customer satisfaction (Figure 8 below).

Figure 8   Overall Satisfaction with Company XYZ

Overall Satisfaction with XYZ

Technical Support	9.71
Initial Sales Experience	8.70
Corporate Image	8.64
Product Quality	8.47
Features & Functionality	8.40
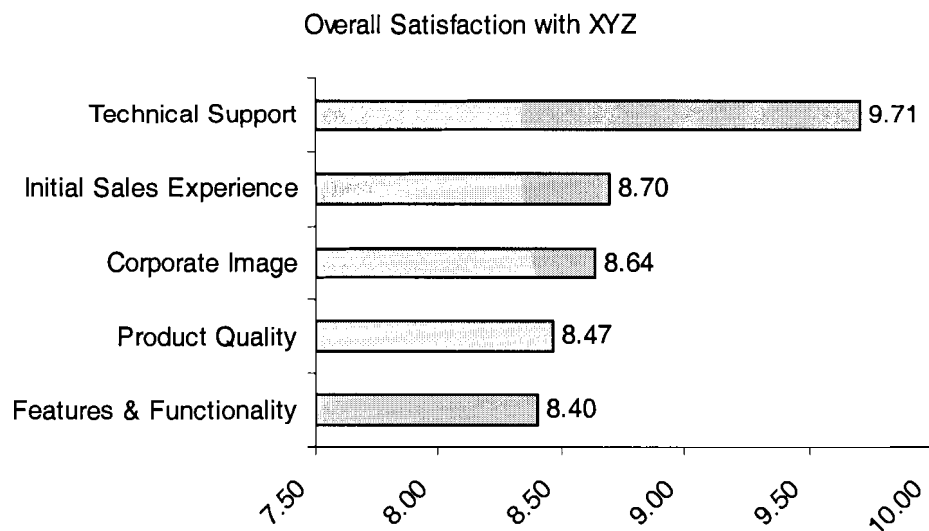
Data source: POLLARA, 2003

As the survey result indicates, XYZ scored extremely high on satisfying customers' needs in the areas of technical support and product quality, which are aspects that customers deem as the most import to their organizations. This suggests that XYZ has been focusing its efforts in the appropriate areas.

3.3.4 Quality Control

As mentioned in the previous section, product quality is one of the most important when dealing in products and services, XYZ has devoted its resources to securing superior customer satisfaction in this area. According to the same customer survey data in POLLARA report, the three most important product quality attributes are 'stability of the software, it never crashes' (rated 9.73 out of 10), 'the software is free of bugs' (9.4), and 'software is easy to support for my internal IT staff' (9.2) described in Figure 9 below.

Figure 9   Importance of Product Quality Attributes

Importance of Product Quality Attributes

Attribute	Value
Stability of the software, it never crashes	9.73
The software is free of bugs	9.40
Software is easy to support for my internal IT staff	9.20
Software is easy to upgrade whiten a new release is distributed	9.13
The graphical user interface of the software is intuitive and easy to use	9.00

8.60   8.80   9.00   9.20   9.40   9.60   9.80
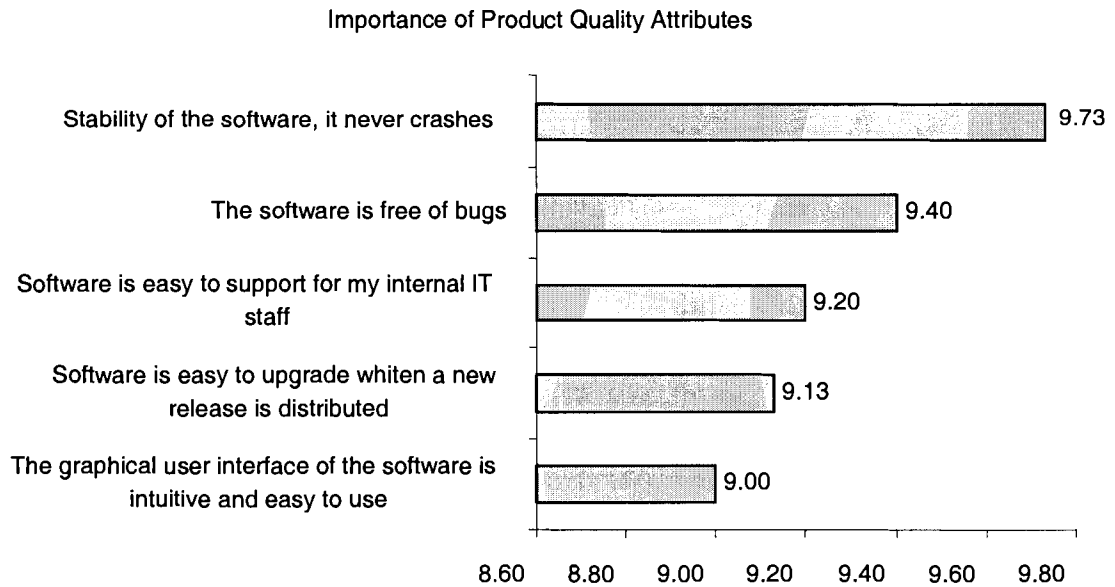
Data source: POLLARA, 2003

XYZ maintains its competence in the area of product quality through efforts in engineering, technical support, and after-sales quality control. Under current perpetual licensing model, after-sales quality control is accomplished through service packs issued in the form of a CD or live download. The frequency and timing of the upgrade play an important role in meeting customer satisfaction. The more frequent service packs are made available, the more bugs can be fixed; hence, more frequently related customers' complaints can be resolved. Product upgrade that is synchronized properly with customers' operating cycles would receive positive customer cooperation in terms of timely implementation.

On the other hand, service packs that fail to deliver on a timely basis can result in customers' delay of upgrade. The problem here is threefold. First of all, customers continue to complain about problems that may have already been fixed in the upgrade.

Consequently, resources that could have been allocated somewhere else may potentially be tied down by these service calls, which increase both actual and opportunity cost for technical support. Secondly, unfixed bugs may jeopardize XYZ's reputation, making the company out as a substandard software vendor. Thirdly, delayed upgrade results in increased complexity in supporting and testing multiple versions of the product and service packs. Again, this would potentially add to the total cost of quality control for Company XYZ.

3.4 Revenue Analysis

3.4.1 Current Revenue Distribution

Licensing revenue contributes to approximately 38% of Company XYZ's annual income (Figure 10 below). Customers are charged one-time basic license fees ranging from $ 20,000 to $2,000,000 depending on the customer group to which the buyer belongs[11]. For example, a small customer is likely to pay $20,000 that allows approximately 4 licenses for program registration, whereas, a strategic customer is likely to pay $2,000,000 for approximately 100 licenses[12]. However, as discussed in section 3.2.2, the number of licenses does not necessarily restrict the actual number of concurrent users of the product, due to the product's lack of licensing enforcement functionality.

In addition, annual maintenance program charges each customer 25% of the initial one-time license fees. The total revenue generated from maintenance programs provided adds up to 41% of the company's income. Customers would stop having privileges to access online or telephone support and authorities to apply upgrades of service packs if maintenance contracts are not renewed annually.

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[11] Data has been adjusted in order to protect company's revenue information.
[12] Data has been adjusted in order to protect company's revenue information.

Another revenue source concerns implementation and training fees. Such charges depend on customers' needs, especially when customers do not have sufficient IT employees within their organization to deploy a new application. Currently, revenue generated from implementation and training fees contributes to 20% of XYZ's annual income. However, this revenue will be minimized if XYZ decides to switch from perpetual to transactional licensing model since a major part of the implementation is done on centralized servers.

The last revenue source is third party hardware fees. For example, Company XYZ will include scanning stations in a sales contract when customers do not have such hardware. This revenue contains approximately 1% of company's annual income.

Figure 10 Current Revenue (2003) Distribution of Company XYZ

Current Revenue Distribution

Third party hardware 1%

Maintenance
41%

Licensing sales
38%

Training 20%
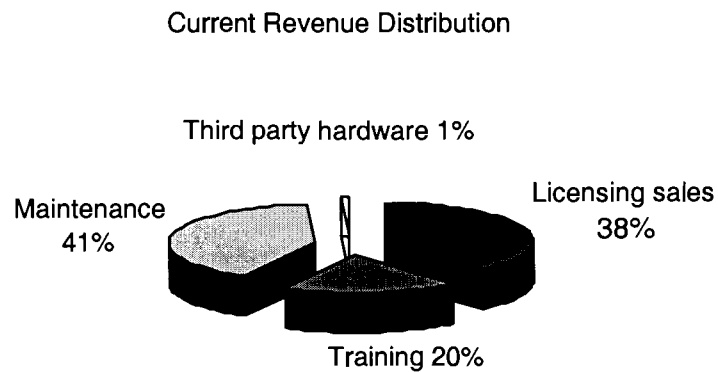
Data Source: Marketing Communications Team of XYZ, 2003

3.4.2 Revenue Forecasting

Our analysis starts with two operating environments, each of which has four options. The two environments are Hosted and Hybrid. The Hosted scheme provides a complete solution for both over the counter (OTC) and online (OL) transactions over the

Internet that includes website hosting, transaction and database management, and backend server services. Other than licensing or administrative purposes, a pure hosted environment requires no software installation at client site. The Hybrid scheme, on the other hand, hosts only the OL transactions, leaving OTC to customers to manage locally. The four transactional models are derived from the maximum combinations of Tiered or Flat fee charges over OTC and OL. Flat fee charges cash transaction at 1.5% and credit card transaction at 3.75%. Credit card transactions are charged higher because they need to cover the standard service fees charged by credit card companies. Tiered fee charges transactions below $150 at 6.5% plus an additional per transaction fee of $0.5, between $150 and $500 at 3.5% plus $5, and over $500 at 2.5% plus $10.

We assume a 40 percent OL adoption rate as our target for this analysis. However, to be on the conservative side, we repeat the same transaction volume and associated revenue for the five-year forecast. In the matrix, every combination of service-providing scheme and transactional model, with or without the 40% target OL rate is compared with the original perpetual licensing model.

Our first analysis is to investigate Active revenue percentage changes in different transaction models over a five year period.

The data highlighted in light shaded lines (Appendix D) indicates that some specific transaction models will cause Active revenue to drop when percentage of charges for services is either too low or when percentage of online registrations does not achieve a 40% target on total transaction volume. In addition, those scenarios only occur in Small or Medium markets. This result indicates that transactional licensing models are not effective with low online transaction volume when market size tends to be small.

The OL Tiered plus OTC Tiered combination yields the maximum revenue increase (average 224% for hosted solution and 126% for hybrid).

The increase percentage is quite dramatic in the Strategic market (360.09%), which may reflect the fact that we charge customers too much. As a result, this new service-providing scheme may not be accepted by customers. Customer total cost of ownership data is therefore included in our research next.

3.5 Cost Forecasting for Customers

3.5.1 Hardware Costs

Under perpetual licensing model, customers are required to be equipped with their own IT infrastructures for both online and over the counter services. On average, customers spend $8,000-$250,000 (Marketing Communications Team of XYZ Company, 2005) depending on the size of customer group. However, both transaction and subscription models enable customers' IT infrastructures to be divided at the point where services are provided online. When vendors host online services, customers' web server costs can be reduced by as much as $1,600-$50,000. Furthermore, when vendors host over the counter services as well, such as in the case of a pure hosted environment, customers' local server costs can also be eliminated, resulting in savings of the entire IT infrastructure, $8,000-$250,000.

3.5.2 IT Infrastructure Support

IT infrastructure support applies to services and support toward customer owned IT infrastructures. Therefore, it is only applicable to perpetual licensing model and hybrid environment under both transaction and subscription licensing models; services provided both online and over the counter for perpetual ($10,188-$263,875), and over

the counter portion only for hybrid ($5,813-$217,625). On the other hand, since vendors

host the entire server functions in the hosted environment under both transaction and

subscription licensing models, there is no IT infrastructure support charges involved in

customers' costs.

3.5.3 Part-Time Employee Costs

Since registrations of leisure activities peak at the beginning of a season, the use

of part-time employees is a common business practice at community centres. Although

this allows a community centre to allocate resources flexibly at different time periods,

training of staff becomes an issue, especially when most of the part-time employees do

not have specific computer training to operate an enterprise application.

In addition, most end users are returning consumers who have basic

understanding of leisure activities. Therefore, community centres have opportunities to

reduce part-time employee costs if more consumers will adopt self-service transactions.

A customer spends from $12,000 to $300,000 on average on personnel cost annually.

Reduction of part-time employees can lead to savings of $2,400 to $ 60,000 for a

customer depending of course on customer group.

3.5.4 Calculation of Five Year Cost Structures

Hardware costs, IT infrastructure, support personnel, maintenance and license

fees are the main cost element for a community centre that deploys XYZ product. Five-

year cost forecasting for customers in Appendix F indicates that transactional licensing

model will cost small, large, and strategic customers more than perpetual licensing

model. However, if the percentage of online transactions increases to 40% of total

transactions, customers will reduce their costs of adopting XYZ product. The costs will

reduce to a range of between 34.78% and 80.98% depending on the customer group.

The result indicates that expanding online transaction volume is essential for customers to accept the transactional licensing model.

The only exception lies with the strategic customer scenario. A strategic customer needs to pay additional 66.09% transactional costs when online transactions are 4.47% of total transactions under current circumstances. However, total costs will still be 2.10% more than current costs when 40% of transactions are switched to online mode.

As for subscription licensing model, customers will need to pay less total costs to adopt XYZ product than current perpetual licensing model. Moreover, when percentage of online transactions increases, the total cost for customers to use XYZ product will decrease slightly compared to perpetual licensing model. The result demonstrates that expanding online transactions volume does not help customers save on total costs of owning the product under the subscription licensing model.

3.6 Convenience Fees for Public Users

Transactional licensing model typically adopts tiered options for a single transaction. If a transaction is less than $150 USD, then 6.5% of convenience fees (service charges) will be applied per transaction. If a transaction is between $151 and $500 USD, then 3.5% of convenience fees will be applied per transaction. If a transaction is larger than $500 USD, then 2.5% will be used. Company XYZ expects to receive approximately $15,500 to $4,400,000 USD convenience fees from public users depending on the weighting in the range from small to strategic customer groups. However, strategic customers face problems of having the convenience fees scaled too high ($4,400,000 USD).

As for subscription licensing model, convenience fees range from $6,000 to $58,000 USD for different customer groups. Each staff over the counter is charged $1,200 fee annually. As for online transactions, $3 annual fee applies to a public user who registers in XYZ web application. Subscription licensing model does not create scale-up of convenience fee problems for strategic customer group. However, it contains issues of earning less revenue (average of 36%) than current perpetual licensing model.

4 ALTERNATIVES

This chapter will discuss five options for XYZ's licensing strategy (refer to

Appendix G). Furthermore, key factors influencing licensing decisions will be discussed

to compare the advantages and disadvantages of the five licensing options.

4.1 Five Options

Perpetual, transactional, and subscription licensing models are three distinct

models of licensing software. Moreover, combinations of three basic models can form

five major options that JL might consider for its licensing strategy.

4.1.1 Perpetual Transaction Model

The first option requires XYZ to make no changes to its current licensing model.

XYZ will continue to charge customers one-time licensing payments plus annual

maintenance and support fees. Customers will manage their in-house database servers

and web servers themselves. Both over the counter and online services will be charged

in the same manner.

4.1.2 Hosted Transactional Licensing Model

Compare to XYZ's current perpetual model, hosted transactional model is clearly

at the other end of the spectrum of licensing strategy, in terms of magnitude change in

concept from how software is conventionally licensed. Under this model, customers will

no longer need to have any backend server infrastructures. Staff at a community centre

will log in to an account on the Internet to process over the counter transactions.

Depending on the amount for each individual transaction, a predetermined percentage

service fee is recorded. Online transactions will follow a similar pricing principle, except that end users are serving themselves for the transactions. At the end of an accounting period, XYZ will collect all the proceeds received, deduct the fees recorded, and then write a check to the customer.

This is a true pay-as-you-go model, where transaction volume is the single determinant of XYZ's revenue. Therefore, strategies that increase transaction volume will be of great interests to XYZ.

4.1.3 Hosted Subscription Licensing Model

Also known as hosted transactional licensing model, the hosted subscription licensing model also provides hosted solutions for both over the counter and online services. Community centre staff and end users will go through the same methods to process transactions. However, the only difference is that instead of charging customers at a per transaction basis, XYZ will charge a subscription fee for a set number of seats per accounting period. Each seat allows one login for the account. In order to meet different quantity of demand according to the city population, a different number of seats can be made available, for example, 5 seats for small customers, 25 seats for medium customers, 50 seats for large customers, and 100 seats for strategic customers.

Under this model, XYZ's revenue will not vary with transaction volume. Instead, the number of seats is the determining factor for XYZ's bottom line.

4.1.4 Hybrid Transactional Licensing Model

The fourth option of licensing strategy is a combination of transactional and perpetual licensing models. Online transactions from public users possess major opportunities for both vendors and customers to reduce costs and increase revenues.

Therefore, switching from an online registration module of XYZ product to transactional licensing model allows the company to look at the major impact of transactional licensing model first.

Moreover, customers can continue to use their existing XYZ product for the over the counter portion without a change. This option is a smooth transition from one licensing strategy to another. The company has choices to apply this option as a bridge to full transactional licensing model when online transactions are successful applying new way of licensing.

4.1.5 Hybrid Subscription Licensing Model

Again for subscription licensing model, Company XYZ has an option to switch only online transactions to new licensing model. This will have similar effect as the option mentioned in 4.1.4 , which includes less impact on over the counter business process while providing a new opportunity to evolve online transactions process. Furthermore, subscription model is acceptable to public users nowadays due to other programs like hotmail or yahoo having adopted this model for more than five years.

One potential risk of adopting this option is that public users may have different expectations or desire for specific member privileges when they subscribe to the web application of XYZ product. For example, end users might expect to register early or earn some credits whenever they register for a leisure activity online. This might become an issue for a community centre when customers do not expect to jeopardize equal access for consumers over the counter.

4.2 Key Factors Influencing Licensing Strategies

Four key factors are identified from internal and industry analysis to examine each licensing option described above.

4.2.1 Online Transaction Opportunities

Industry analysis reveals that web technology has made online transactions an essential business process that end users require for most of their daily transactions. Moreover, self-service characteristic of online transactions has led software vendors to examine online markets from a different angle.

4.2.1.1 Total Cost of Ownership for Customers

Under perpetual licensing model, vendors would charge customers for owning a software application before their purchase. However, total cost of ownership includes not only application licenses but also all the related hardware and even IT resources that a software application maintenance requires. As a result, transactional licensing model introduces the idea of software vendors providing a full service on their software application. A community centre will not need to purchase a set of web servers and hire IT staff to ensure the server down time will be minimized. Moreover, customers will push service downstream to end users to learn to self-serve their needs. This will improve total cost of ownership for customers when the middle tier of operating service at community centres can be reduced to minimal.

Online transactions under transactional licensing model are important to improve total cost of ownership for customers because of savings on server and part-time employee costs.

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One challenge that customers will consider in total costs of ownership relates to the control of web servers. Management of web servers, including locations of servers and capacity of web servers to keep up with transaction volume increases, is a qualitative measurement of customer costs that will surface under the transactional licensing model.

4.2.1.2 Decrease of Licensing Complexity for XYZ

In terms of licensing enforcement, perpetual model is the weakest. XYZ currently does not even have licensing enforcing functionalities implemented in the software. This makes usage tracking nearly impossible. Most of the companies using the perpetual model rely predominantly on the honour system to ensure customer compliance (IDC, 2004).

Hosted transactional and hosted subscription models on the other hand, are the strongest in this area since customers' activities can be monitored and each transaction is processed through XYZ's servers. Therefore, only legitimate access will be allowed. XYZ will have complete control over licensing enforcement.

In terms of negotiation efforts concerned with the 5 options, transitional and subscription models reduce the licensing complexity by reducing the need for maintenance program negotiation. Under XYZ's current strategy, maintenance program is charged as a percentage of customers' total license fees. In order to lower the maintenance payments, customers normally negotiate for a lower base license fee. Under hosted transactional and hosted subscription models, maintenance is done on XYZ's centralized servers. Hence, no charges are incurred for customers.

In terms of product version monitoring, hosted IT architecture enable licensing complexity to be reduced by centralizing upgrades and maintenance that permit version

standardization. Product versions will be self-monitored, which will eventually reduce the complexity in support, maintenance, and quality control.

4.2.1.3 Alignment of Customer Preferences to XYZ Product Values

Hosted architecture enabled centralized product upgrade and maintenance benefits not only Company XYZ but more importantly, its customers. Since customers' direct involvement is eliminated, upgrades can be done regardless of customers' business cycle and without interrupting customers' normal operations. This means that customers will work under the most up-to-date bug fix list that ultimately increases customer operation efficiency.

For customers that cannot afford the IT infrastructures to hire XYZ's current client-sever software, hosted environment enables them to incorporate technology in their business process. For customers who are interested in online business, XYZ's hosted solution literally opens the door to a brand new market. This increases customers' user base, thus satisfying public demand.

In addition, compared to other strategies, the transactional model has the distinct advantage of accurate licensing predictability. Customers are charged for exactly the amount of service they receive, no more or less. There is no need to estimate the number of seats required to cope with the registration peak, or to feel unjustified for the underutilized capacity during a fall in registration. When a city's population grows out of the predetermined customer group boundary, for example from a small customer to a medium customer, there is no need to switch over to a different licensing package or to increase seats subscribed.

4.2.1.4 Sales Compensation Modifications

Sales compensation will definitely need to be modified under transactional model, since there is no more fixed lump sums to calculate the compensations from, like that of a perpetual model.

Under the transactional model, revenue comes in continuously depending on the number of transactions actually occurring. XYZ's new method will be to give sales personnel a percentage of the initial revenue and a percentage of the transaction thereafter for 4 years, as long as the sales person stays with the company.

XYZ also integrates sales quota with the promotion of new products (products sold under new licensing model). There is an added weighted percentage for each new product sold towards sales quota to give incentive for sales people to promote the new products. This weighted percentage applies only towards the sales quota, but not the actual commission.

As a result, sales people will focus on selling not only the software itself, but also on increasing overall transaction volume, especially the online transactions.

4.2.2 Increasing Online Transaction Volume

Internal analysis of revenue forecasting and customer costs indicated that increasing online transaction volume is critical to ensuring that most new licensing strategies are implemented successfully. In addition, e-Commerce trends in recent years have proved that the number of end users adopting online transactions continues to grow even with the burst of the bubble in 2000.

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4.2.2.1 Customer Market Strategies for Online Transactions

Existing Company JL has one transactional licensing product inherited from the XYZ product line. However, internal analysis shows that the transaction volume was approximately 9% for that product. One important factor responsible for low adoption rate of the product is loose customer market strategies.

Since public user adoption rate directly impacts the success rate of any licensing strategy involving the transactional or subscription model, Company XYZ has to work together with customers to promote end user adoption rates to more than 20%. Internal analysis uses 40% for forecasting since end user survey data indicated that there are still 52.2% of end users who haven't registered for a community centre course online.

Revenue forecasting in strategic customer scenario indicated a scale-up problem of too high an increase of income when transactional licensing strategy is adopted. As a result, different fee choices in Appendix E are provided for the purpose of different market strategies. Flat fee (1.50% for over the counter and 3.75% for online) would allow a customer to predict their transaction costs in proportion to the number of transactions. Furthermore, strategic customers who face scale-up problem of too many small transactions will be relieved when convenience fees are not linked to the amount of a transaction.

4.2.2.2 Deployment Project Gaps

Since transactional licensing product does not require that customers purchase a variety of hardware upfront, a customer might not feel the "pain" of fixed costs and therefore ignore the importance of executing a project plan for deploying the product. Moreover, training of over the counter staff can be ignored when customers assume that

the software vendor provides full service package and they do not need to pay additional costs to train staff.

Transactional or subscription licensing models contain this risk of deployment project gaps and may escalate a customer satisfaction issue. Currently Company XYZ has already initiated a marketing plan for the existing product line that applies transactional licensing. However, when new licensing strategy is determined for overall XYZ product, the company will need to consider different marketing plans suitable for individual customer groups.

4.2.2.3 Responsiveness to Web Technology

Since online transactions will involve end user direct interactions with web application, company XYZ will need to update existing product to respond to latest web technology. Furthermore, a web application usually contains a simple set of controls that cannot achieve the same graphical interface as the application at client and server environment does. Responsiveness to web technology will need to consider switching existing customers' expectations of standard controls.

4.2.3 Product Adoption

Product adoption under new licensing strategy will need to consider both new and existing customers.

4.2.3.1 New Customer Adoption

Small customer group represents a large percentage (44%) of the entire Parks and Recreation market as described in Figure 11 below. Of all XYZ's current customers, none has adopted the client-server online services. The reason for such a slow adoption is part due to the low technical nature of the industry, part due to the lack of proper IT

infrastructures that these small customers currently have, and part due to the lack of

resources in investing a huge up-front cost of the licensing charges.

Figure 11   Customer Group by City Population

Customer Group by City Population

Population	Count (%)
More than 100,000 (strategic customer)	5%
50,000-1000, 000 (large customer)	35%
25,000-50,000 (Medium customer)	16%
25,000 or less (Small customer)	44%
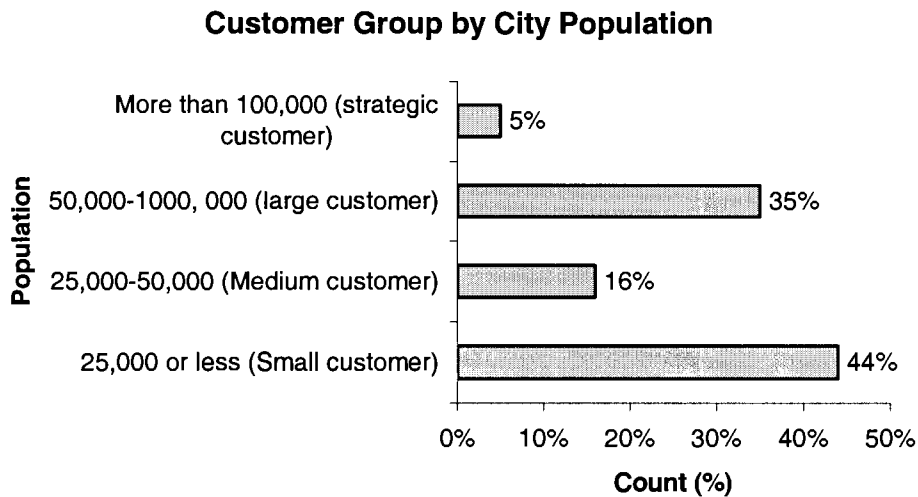
Data source: POLLAR Report, 2003

Under XYZ's perpetual licensing, the start-up costs range from $73, 000 for small

customer to $1,513,000 for strategic customer. A POLLARA research data shows that

45% of the Parks and Recreation centres never purchased any software, while 31%

purchased a one time purchase in the value of $10,000 or less and 1% purchased a

value of $250,000 or more (Figure 12 below). This result demonstrates that most

customers do not commit to a large lump sum so easily.

Figure 12   Largest One-Time Recreation Management Software Purchase

Largest One Time Purchase
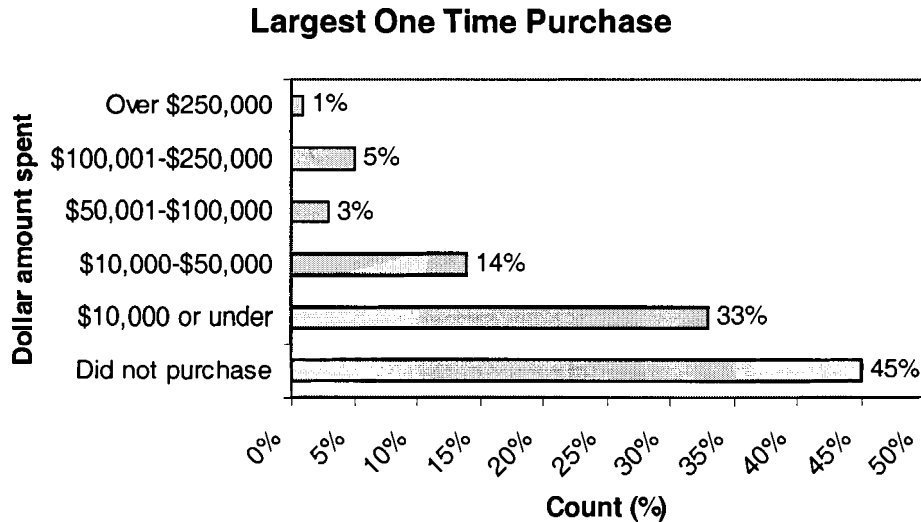
Data source: POLLAR Report, 2003

The combination of a large percentage and a low adoption rate shows a great opportunity for XYZ to challenge this under developed market. The transactional and subscription models both provide pure or half hosted services that eliminate the limiting IT factors that traditionally hinder these customers from adopting XYZ's software solutions. In addition, these two licensing models, forgo the up-front costs and thus allow more flexibility in software licensing. In the case of the transactional model, the underlined pay-as-you-go principle further relaxes the level of commitment required for adoption. Customers will find it much less risky to try out a new way of conducting business.

What transactional model also brings is a new customer relationship. Since increasing the transaction volume will be a common goal for both XYZ and its customers, it is mutually beneficial for both parties to focus on activities and processes that will increase end users' interests and confidence in self-serve transactions over the Internet. As a result, a vendor-customer relationship will transform into a partnership.

4.2.3.2 Existing Customers Switching to New Product

The options for transactional or subscription licensing model will involve modification to existing product, especially for full transactional scenario. The existing windows platform product must be redesigned as a web application in order to host a web-based application that does not require customers installing software product before starting to use XYZ product.

When existing customers upgrade to new products, their fixed costs of existing hardware will be an obstacle to conquer. As a result, Company JL will need to consider the value of new product as part of broader solution to existing customer service along with licensing strategies. Product branding will differentiate XYZ product by the company's good reputation of providing full solutions to its customers.

4.2.4 Customer Service Quality

In the internal analysis, the general manager of Company JL stressed the importance of maintaining customer service quality no matter what changes there will be with XYZ's licensing strategies. As a result, sustaining excellent customer relationships and creating loyalty for public users adopting self-service are discussed in this section.

4.2.4.1 Sustain Win-Win Customer Relationship

Internal analysis indicates that Company XYZ's technical support has the highest rank among a range of elements considered by existing customers. When transactional or subscription licensing model does not anticipate technical questions about infrastructure set-up from a customer, queries about how software operates to meet business practices will continue to exist. As a result, win-win customer relationship will shift to a more business consulting support under transactional licensing model.

Regarding pure technical support, Company XYZ will need to describe clearly the service that the company provides as well as those that fall outside its operational scope. Setting a clear expectation of service content will avoid unreasonable expectations or the neglect of important service success criteria when XYZ product starts to adopt a new licensing strategy.

Internal analysis also indicates that existing XYZ product is tedious to upgrade (score 9.13) and requires a significant investment of time and coordination. As a result, upgrading existing customers to new licensing strategy requires a must-win factor for customers. New version or new product for Company XYZ will be essential to couple with new licensing strategy for existing customers to perceive the benefits of adopting new product.

User Loyalty is one challenge of the transactional licensing option. As for subscription model, enrolling customers to register their identity at the beginning encourages them to take time to receive initial user privilege or credentials. Later customers will find it more difficult to desert online transactions when they do not desire to fill in all the credentials again in another system.

4.2.4.2 Self-Service for Public Users

An end user survey conducted in the city of Vancouver indicates that over 61.1% of the respondents participate in online shopping at least once a year. When asked how frequently they use a community centre's online registration services, only 43.7% of the respondents reported that they used these services at least once a year. This result shows a 17.4% behaviour gap between end users who are comfortable with online transactions versus those who actually use the community centre online services

currently available on the market. This behaviour gap represents an opportunity for XYZ to capture the market share.

Wherever opportunities appear, competition arises. Vendors in the online business may find it challenging to differentiate themselves from their rivals. However, since the online service is essentially set up in a self-serve environment, end users' cumulative personal experience for each web encounter becomes the determining factor for the likelihood of their return business in the future.

With the availability of online services, XYZ will interact with end users directly. End users' experience with the software as well as services will directly impact their willingness to return. Therefore, XYZ needs to adjust its attitude in terms of customer services and technical support to cater to this newly incorporated user group. Up until now, XYZ's support staffs are used to dealing with customers who maintain their own IT systems, so a certain level of technical sophistication is expected. However, when XYZ starts to deal with the public, it needs to consider end users with a wide range of technical background and skills. Therefore, in order for XYZ staff to treat users with the same courtesy, patience, and respect despite their level of technical knowledge, retraining is necessary.

Furthermore, when asked what the most important benefit is for registering a leisure activity online, 31.9% of the respondents indicated that the privilege of registering during non-business hours and 27.4% indicated the avoidance of lining up at the community centre as the top 2 benefits they perceived. From the quality assurance point of view, end users respond to stable and sustainable services. This means that the web site must be fully functional 24/7. Downtimes are extremely intolerable. In the hosted environment server maintenance and upgrades are performed at XYZ's site. In

order to sustain end user loyalty, XYZ's internal IT infrastructures need to be well maintained, robust and secure.

The subscription licensing model calculates the number of users rather than number of transactions. As a result, revenue growth is limited when a single user can operate unlimited transactions. In addition, user entity may have different definitions in different business processes. Some community centres might consider a family account as a user while others consider individual members of a family account as a user. This will lead to increasing complexity of subscription licensing model on account of the wide variations in user definitions.

5 RECOMMENDATION

This chapter opens up with selecting transactional licensing model as the recommended choice for XYZ. Discussions on how this new licensing strategy should be adopted and how it best matches with XYZ's business prospect will be followed by a conclusion of XYZ's pursuit of a new software licensing strategy.

5.1 Adopting Transactional Licensing Model

Chapter 4 introduced five licensing models that derived from three basic models, namely perpetual, transactional, and subscription. The perpetual licensing model does not provide JL with the competitive advantage of increasing its revenues by 20% nor of exploring the company's opportunities to gain a dominant market share. The option of keeping the current model is therefore eliminated. On the contrary, transactional licensing model serves to increase JL's revenue and market share. Moreover, transactional and subscription models allow customers' servers to be hosted centrally, so they are much better choices compared to the perpetual model. These two models are similar in every way except the method of calculating the license charges. Transactional model charges on a per transaction basis, whereas subscription model charges on a per seat basis. The most important advantage of the transactional model over subscription model is that XYZ's revenue grows as the transaction volume grows. This means that XYZ will benefit from the overall industry growth and the ever-increasingly popular Internet usage among the general public. Subscription model, on the other hand, does not respond to the growth and therefore is not a sensible choice in the long run.

One other important advantage of choosing the transactional model is that it meets XYZ's parent company, JL's mission of generating its main revenue from online transactions. As JL's general manager suggested, even though XYZ has full autonomy on making licensing strategy decisions, JL's current success in the transactional model has exerted a strong influence on its subsidiaries.

In addition, since online service is still at its infancy of adoption in the Parks and Recreation market, it is important for XYZ to grab market share and establish its dominant position in the market early, in order to secure the first mover advantage. The best way to reach out to end-users is through a mutually beneficial partnership with XYZ's customers. Transactional model naturally reinforces a win-win relationship that attracts end users' interests in conducting self-serve transactions. This model is most suited for a growing market. For an industry that is new to this licensing concept, XYZ needs to be a leader before the competitors follow suit.

5.1.1 Staged Adoption

Even though the urgency of adopting the transactional model is apparent, the actual process of adoption should not be rushed. Transforming from XYZ's rigid perpetual licensing model to a fully flexible hosted transactional model all at once can be a major shock to the system. This is true from both vendors' and customers' perspective. Therefore, staged adoption is recommended to ensure the success of XYZ's licensing strategy transformation.

5.1.1.1 Stage One: from Perpetual to Hybrid Transactional Licensing Model

In changing from perpetual to hybrid transactional model, while over the counter services will continue to use perpetual model, online services will be provided by XYZ's hosted web servers instead of being operated in a client-sever environment. Since the

concept of online services is new to most customers, it is considered as less shocking to adopt a new licensing strategy right away.

Moreover, hybrid transactional model for online services will allow XYZ to win customers' confidence on vendor's ability to host web applications. Customers need to ensure that XYZ's hosted servers will be able to keep up with a community centre's increasing transaction volume. In addition, customers will need to feel that their controls over the web applications are managed appropriately by XYZ.

XYZ will be able to develop a hybrid product directly from its existing online feature. This will shorten the time to market for XYZ. In addition, existing small or medium customers will be able to adopt online services right away without worrying about web server hardware and operating software issues.

One the other hand, since over the counter services have a long history of operating in a client-server environment using perpetual model, the effect of a change may be magnified by the existing culture and previously acquired knowledge. Keeping one of the major services constant will help both XYZ and customers adjust better in the new transactional model. This also gives XYZ an opportunity to redesign the existing client-server over the counter modules to operate on a web platform.

5.1.1.2 Stage Two: from Hybrid Transactional to Hosted Transactional Model

Stage one establishes the foundation for both XYZ and customers to evolve to a purely hosted transactional model. Timing can work to XYZ's advantage as to when to implement the switchover. IT infrastructures play an important role here for customers who currently maintain their own servers. Since Microsoft evolves server operating system technology every 3 to 4 years, customers tend to follow the same cycle for

server OS upgrades. XYZ should capture the window of opportunity when customers are scheduled to implement the upgrade to deploy the changeover.

While making the transition, it is important to keep in mind that changes are always accompanied by interruptions, however small. XYZ should avoid dramatic business process changes both for itself and for customers. Gradually introducing changes over time will help the entire business value chain to adopt the new licensing model more smoothly.

5.1.2 Estimate of Online Transaction Adoption Rate

According to one of XYZ's customers who have been using the client-sever online modules, the online registration rate has been growing steadily at around 5% in the past 5 years, and this figure is expected to grow continually. Registrations during March 2005 for summer activities saw a total of 7,200 transactions, of which 4,400 were processed online, a 61.1% adoption rate.

Online shopping is increasingly becoming popular in Canadian households. As mentioned in section 2.2.4, 64% of households use Internet regularly, while 26% of the households actively participated in online shopping in 2003. However, the growth rate of households shopping online exceeds 5 times that of households' rate of regular use of the Internet. This demonstrates that online transaction adoption rate is catching up rapidly to the Internet adoption rate among the public. Moreover, the concept of online transactions is only at its beginning stage in terms of receiving public acceptance. With 26% of households participating in online transactions, there is still a lot of room to grow in the future.

In addition, an end user survey shows that 52.2% of the respondents have yet to register for a class at a community centre. This low participation rate can be improved with an effective marketing plan for which XYZ is eager to work with the customers. The strategy here is to increase public interest in registering for a program then follow up with the convenience pursue of registering online.

As of now, no other big vendors have attempted the transactional model yet. XYZ will very likely be the flagship in leading the trend to conquer the ever-expanding market.

5.2 Recognizing Value of the Full Solution

High demand of leisure programs and increasing business efficiency are the main reasons that customers consider online registration features. New licensing strategy needs to incorporate customers' business goals. Moreover, software vendors rely on application licenses to ensure that their products earn sufficient returns on investment for development. As a result, licensing strategies have to consider both vendor and customer perspectives for a full solution that satisfies both sides' business needs.

5.2.1 Incorporating Licensing Decision Needs in Customer Business Solutions

In Chapter 4, five different options of licensing options were discussed. However, combinations of different licensing models are not recommended since customers or their end users can easily be confused by too many combinations of models. Purely transactional licensing model for both online and over the counter transactions is recommended as the final licensing goal due to the fact that customers do not need to explain to their end users why they may be charged differently when they register for a leisure program in different locations.

Moreover, current licensing strategy is linked to maintenance program charges because maintenance fees are based on a percentage of application license fees. In addition, city population has been set as one major criterion for license charges. Some customers may not be convinced that their application usage is directly proportional to city population. As a result, the new licensing strategy allows customers to link their costs of using XYZ product directly to the number and cost of transactions. The new model will reduce the complexity of application licenses that impact upon other business decisions. Customers will also be able to predict their recurring software costs better than the current model.

However, one challenge appears in the recommended licensing strategy. When a city's population grows, transactions number may increase to the extent that community centres cannot afford to absorb convenience fee costs for their end users. Chapter 4 indicates that one key factor of public users supporting self-service is their satisfaction in having the convenience of registering for a course during non-business hours. Once a community centre has to apply convenience fees to their end users, they may not feel that the service they received online is worth paying additional fees for. When purely transactional licensing model still relies on attracting online transactions in order for the market to grow maturely, software vendors need to focus on working with customers with increasing awareness of online community centre services. Convenience fee should not play a role in discouraging public user adoption.

In addition, an abnormally large transaction amount will make customers feel that they are paying too much for convenience fees even when tiered structures of fees are applied according to sizes of transaction amount. Flat rate fee option in Chapter 3 provides an alternative for ceiling or maximum service charges per transaction. However, XYZ may not earn maximum benefits of transactional licensing model if a

community centre relies on a few but large dollar-amount transactions. Having a maximum fee per transaction in a tiered fee structure may also be a good idea in order to encourage customers not to skip using XYZ product for big transactions.

5.2.2 Sustaining Software Vendor's Core Competency

Company XYZ has a good reputation on software quality and support with current product that applies perpetual licensing. The recommendation to maintain a purely transactional licensing strategy will require that the company focus on establishing a direct trusting relationship with online users across a wide base. In addition, public user loyalty will be more difficult to maintain than that of community centre directors since public users possess low switching costs of applying XYZ product. There are no fixed costs for public users to bear upon giving up XYZ product for online transactions.

Current revenue distribution at 3.4.1 indicates that 34% of company revenue comes from application licenses. Increasing 20% of revenue growth in new licensing strategy will focus mainly on continuous cash flow from transactions. In addition, the nature of transactional licensing model will eliminate the effort of enforcing licensing features in the current product.

5.3 Blue Sky of Online Transaction Volume

Different licensing options requiring 40% of online transactions indicate that promoting online service is a key factor for XYZ to succeed in transactional licensing model. As a result, marketing plans for stimulating public awareness of online community service is inevitable to new licensing strategy.

5.3.1 Stimulating Self-Service Concepts

Self-service is not commonly accepted in community online service due to the fact that end users are used to lining up in front of community centres for busy, early Saturday registrations in past years. Moreover, public users may regard personal contact with over the counter staff as easy, direct access to services. Purely transactional licensing model will need to emphasize this element of ease of use of the interface for public users so that learning curves for end users to adopt new tool are minimal. In addition, visibility of available spots for registrations is important to win consumer's confidence over accuracy and promptness of online information during their registration processes.

One challenge of promoting online self-service transactions is that some cities might be concerned about equality of registration privileges for people who do not have access to the Internet. This will require that Company XYZ communicate with customers and seek opportunities to help improve accessibility of Internet for poor people.

5.3.2 Retaining End User Loyalty for Online Transactions

The "urgency" factor of course spot contention attracts end users to return to online registrations. However, other types of services like membership sales do not have such effect. As a result, transactional licensing model may face slow growth when XYZ product scales up to include more online features for other types of services. Retaining end user royalty such as providing discount coupons or priority of renewing membership is important to couple with new licensing strategy.

In terms of increasing the switching costs for Parks and Recreation directors to adopt different products, Company XYZ will need to emphasize end user preferences of graphical user interface. Once end users trust and enjoy using XYZ product, they will

exert pressure on Parks & Recreation directors if a community centre considers switching to a different software product.

5.4 Conclusion

Company JL's acquisition, technology advancement, and the use of Internet has instigated Company XYZ's pursuit of new software licensing strategy. This strategy will target a 20% increase in revenue, align company's value with that of customers, and lead to growth. The transactional licensing model though operating at the other end of the spectrum as XYZ's current perpetual model, proved to be the best strategy that meets the criteria set forth.

With an estimated 40% online adoption rate, transactional model will deliver the 20% revenue growth. Some of XYZ's existing customers already have an online adoption rate of well over 50%; therefore, the estimated average online adoption rate and the subsequent revenue increase can very likely be achieved.

Transactional model impacts value proposition for the entire value chain. The vendor-customer alliance will be sustained by the win-win philosophy underlining the model. Ultimately, the three major stakeholders (end users, customers, and Company XYZ) in the value chain will benefit from this strategy. End users will enjoy the convenience of registering online, customers will satisfy public demands efficiently, and XYZ will facilitate the growth of revenue and grow with the market.

By adopting the transactional model, Company XYZ will achieve its goals, solve customers' registration problems, and most importantly, improve the lives of the general public. This is exactly how the business case of the recreation software came about and what the software is set up to accomplish.

Now imagine a cheerful Saturday evening, the sun has just set but the aroma of BBQ is still lingering in the backyard. The head of this household is in no rush to finish the day to prepare for an early morning line up for a class at the community centre. Her community centre has gone online! After desert, she can log onto the Internet, and the registration booth will be right at her fingertips. She will browse the availability of courses offered, register, and pay directly using a credit card, all within a matter of minutes. All her classmates and she found out about this convenient way of registering a few months ago, and now nobody is lining up on Sunday mornings any more!

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APPENDICES

Appendix A: End User Survey Questionnaire

The purpose of this survey is to gain a better understanding of public users' attitudes toward leisure activities provided at community centers in British Columbia.
Please circle one choice from each question below. Your participation is highly appreciated.

1. How many times a year do you drop-in for a leisure activity at a community centre?
   a) > 12
   b) 7 – 11
   c) 1 – 6
   d) Never

2. How many times a year do you register for a class or sports league at a community centre?
   a) > 12
   b) 7 – 11
   c) 1 – 6
   d) Never

3. Please circle the types of services you participate in a community centre (can have multiple answers).
   a) Program Registration (e.g. Yoga course)
   b) Membership Pass (e.g. monthly swimming pass)
   c) League Scheduling (e.g. baseball league games)
   d) Facility Reservation (e.g. tennis court reservation)
   e) Others _____ (Please specify)

4. What is your preferred payment method when you pay for services at a community centre?
   a) Cash
   b) Cheque
   c) Direct Pay (Debit card)
   d) Credit Card

5. What do you think the most important benefit is registering for a leisure activity online, rather than over the counter?
   a) Avoidance of lining up at the community centre
   b) Privilege of registering during non-business hours
   c) Convenience of credit card payment
   d) Ease of checking course availability
   e) Others _____ (Please specify)

6. Under what condition would you consider paying additional fees for registering a leisure activity online?
   a) Avoidance of long drive to a community centre
   b) Free online access to personal registration information
   c) Convenience of registering during non-business hours
   d) Privilege of early registration
   e) Others _____ (Please specify)

7. How frequent do you use a community center's online registration services?
    a) About once a week
    b) About once a month
    c) About once a year
    d) Never _____ (Please specify)

8. How often do you purchase a product online (in general)?
    a) Once a month
    b) Once every three months
    c) Once half a year
    d) Once a year
    e) Never _____ (Please specify reasons)

Total of 113 people participated in this survey.

Appendix B: Company JL General Manager Interview Questions

Purpose

This interview with Company JL's General Manager intends to answer questions regarding Company JL's vision for future operating directions with new licensing model. Company JL is the parent company of Company XYZ, which was purchased by JL in October 2004.

Questions

1. What are the three major problems/concerns with existing XYZ licensing model?

2. Why is Company XYZ interested in a new licensing model?

3. What goals does the new licensing model try to achieve? For example, revenue growth of 20%? What is the biggest win that Company JL is looking for with a new licensing model? For example, grab online market shares?.

4. How closely does Company XYZ have to follow Company JL's existing licensing model or preferred licensing model? (How much autonomy does XYZ have in terms of licensing strategy? Is there pressure from JL to standardize the model?

5. How does JL envision online transaction potential for Parks and Recreation markets? 20% growth over next five years or other?

6. How does Company XYZ perceive new licensing strategy in differentiating its products from the competitors? What does XYZ do to deal with low switching cost problems in transaction or subscription licensing model?

7. How does Company XYZ consider sales compensation challenges in transactions or subscription licensing model?

8. What values do you think customers will expect in the new licensing model? What does Company XYZ want them to see? How does XYZ handle total cost of ownership problems with customers?

9. Does Company XYZ have plans to educate customers? If so, through what method and channel is the education to be conveyed?

10. What is executive team's vision for Company XYZ's products?

Appendix C: Customer Interview Questions

Purpose

The purpose of this customer interview is to allow Company XYZ to gain a better understanding of Parks and Recreation customers' needs on software products, preferences in online transactions, and priorities in operations.

Questions

1. Are you using online products? How do you perceive online products?
   Hints: Experience of using online products?
                 Concerns?
                 Visions? Growth rate?

2. What is the level of your organization's interest in promoting online transactions (Internet registration) to citizens?

3. What are the major problems/ concerns of deploying an online application by yourselves?

4. What are some reasons why your organization might be interested in purchasing a product that is not maintained by internal IT staff? What are important purchasing criteria?
   Hints: Cost per transaction
                 Stability of vendor
                 Service availability for customized software products
                 Ease of use of software over the Internet
                 Total cost of ownership to adopt

5. Have you heard about transactional licensing model? What are your views on it?

6. What are your views on transferring the transaction fees to end-users?

7. What is your organization's operating mission?
   Hints: Maintain a status quo of revenue and services
                 Increase net yearly revenue
                 Increase number of participating citizens and services provided yearly
                 Sustain quality time spent with each customer
                 Provide variety of activities offered to citizens

8. What percentage of your part-time employees are front desk clerks? How does high/low registration season affect your business process?

The following questions are targeted at IT management.

9. In terms of dollar amount spent, how does your organization rank ongoing maintenance expense of an application system after the initial implementation charges?
   Hints:
   > Database upgrade/maintenance
   > Hardware upgrade/maintenance
   > Software service pack upgrade
   > Ongoing staff training
   > Network infrastructure upgrade/maintenance

10. What is IT process to deploy a software application?
    Hints: Service packs
                Hotfixes

Appendix D: Summary of Revenue Percentage Changes in Transactional and Subscription Licensing Models

Market Size	% OL	Transactional Licensing		Subscription Licensing	
		OTC + OL	OL Only*	OTC + OL	OL Only*
Small	Original (0)	181.94%	61.86%	47.11%	65.96%
Small	40	181.94%	128.79%	124.91%	143.76%
Medium	Original (0)	126.39%	73.94%	85.88%	73.94%
Medium	40	126.39%	118.89%	157.99%	146.05%
Large	Original (29.32)	226.48%	130.71%	73.37%	60.02%
Large	40	226.48%	160.28%	146.42%	133.07%
Strategic	Original (4.47)	360.09%	107.41%	39.56%	65.42%
Strategic	40	360.09%	224.09%	170.27%	196.13%

Key:
OL = Online
OTC = Over the Counter

* OL Only refers to that only public user transactions (online) adopts new licensing model while over the counter transactions still adopt perpetual licensing model.

☐ Scenario generates less revenue than the current model

▓ Scenario generates more than three times than the current model

Appendix E: Different Service Charge Options for Transactional Licensing Model

Market Size	% OL	OTC + OL				OL Only*			
		OL Tiered + OTC Flat	OL Tiered + OTC Tiered	OL Flat + OTC Tiered	OL Flat + OTC Flat	OL Tiered + OTC Flat	OL Tiered + OTC Tiered	OL Flat + OTC Tiered	OL Flat + OTC Flat
Small	Original (0)	60.05%	181.94%	181.94%	60.05%	61.86%	61.86%	61.86%	61.86%
Small	40	108.80%	181.94%	150.50%	77.37%	128.79%	128.79%	97.35%	97.35%
Medium	Original (0)	62.72%	126.39%	126.39%	62.72%	73.94%	73.94%	73.94%	73.94%
Medium	40	88.19%	126.39%	110.41%	72.20%	118.89%	118.89%	102.90%	102.90%
Large	Original (29.32)	131.09%	226.48%	203.63%	108.23%	130.71%	130.71%	107.85%	107.85%
Large	40	147.79%	226.48%	195.88%	117.19%	160.28%	160.28%	129.67%	129.67%
Strategic	Original (4.47)	160.65%	360.09%	354.57%	155.12%	107.41%	107.41%	101.89%	101.89%
Strategic	40	232.38%	360.09%	319.07%	191.36%	224.09%	224.09%	183.06%	183.06%

Key:
OL = Online
OTC = Over the Counter
Tiered: For single transaction, $0 - $150 = 6.50%; $150 - $500 = 3.50%; $500 and more = 2.50%
OL Only refers to that only public user transactions (online) adopts new licensing model while over the counter transactions still adopt perpetual licensing model.

☐ Scenario generates less revenue than the current model

▨ Scenario generates more than three times than the current model

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Appendix F: Five Year Cost Forecasting for Customers under Different Licensing Models

Market Size	% OL	Transactional Licensing		Subscription Licensing	
		OTC + OL	OL Only*	OTC + OL	OL Only*
Small	Original (0)	106.73%	70.73%	52.10%	82.82%
Small	40	67.46%	67.99%	52.10%	80.08%
Medium	Original (0)	53.98%	78.98%	41.58%	70.95%
Medium	40	34.78%	75.85%	41.58%	67.82%
Large	Original (29.32)	100.59%	72.04%	36.89%	56.43%
Large	40	65.73%	70.38%	36.89%	54.76%
Strategic	Original (4.47)	166.09%	80.98%	17.62%	59.91%
Strategic	40	102.10%	75.16%	12.19%	54.09%

Key:
OL = Online
OTC = Over the Counter
* OL Only refers to that only public user transactions (online) adopts new licensing model while over the counter transactions still adopt perpetual licensing model.

☐ Scenario costs customers more than the current model

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Appendix G: Five Licensing Options for Company XYZ

IT Architecture		Licensing Model		
		Perpetual (P)	Transactional (T)	Subscription (S)
Client-Sever	OTC	P	n/a	n/a
	OL	P	n/a	n/a
Hosted	OTC	n/a	T	S
	OL	n/a	T	S
Hybrid	OTC	n/a	T	S
	OL	n/a	P	P

Key:
P refers to perpetual licensing
T refers to transactional licensing
S refers to subscription licensing