Chapter 6:

Market Strategies: Switching costs and Lock-in

6.1 Recognizing Lock-in: An Introduction

Since information technology products work in systems, switching any single product can cost users dearly. The lock-in that results from such switching costs confers a huge competitive advantage to firms that manage their installed base of customers effectively.

Information goods involve significant switching costs and so the lock-in.

Once you have chosen a technology or a format for keeping information, switching can be very expensive. For example data files unlikely to transfer perfectly and incompatibilities with other tools and need of retraining arise.

Lock in arises whenever user invest in multiple complementary and durable assets specific particular information technology system. Lock-in exists whenever a market exhibits switching costs: it may be explicitly monetary or costs of time and inconvenience.

When you switch automobiles from Ford to G.M., the change is relatively painless. If you switch from Windows to Linux, it can be very costly. You may have to change document formats, applications software, and, most importantly, you will have to invest substantial time and effort in learning the new operating environment.

6.1.1 Examples of lock-in

- Bell atlantic, lock-in with AT & T 5 ESS digital switch
  - Bell Atlantic invested in AT&T's digital switches in the 1980's, and became locked in to AT&T's proprietary operating system
  - The cost of switching switches (!) ex post was very high, versus continuing to use the installed AT&T equipment
  - The switching cost included costs of removal and new installation, as well as the price difference between the used switches and new ones from a different source
- Computer associates
  - Computer Associates systems management software and IBM mainframe operating systems

- Switching costs include costs of switching hardware and software, including retraining
- risk of disruption of "business critical" activities if new software does not work

Mass market lock-in

- Telephone numbers and e-mail addresses can create lock-in if they are not portable between suppliers of services
- The costs of switching are small in absolute terms, but large relative to the costs of the individual consumer
- So small consumer switching costs can be large barriers to entry for mass-market products

Switching costs and lock-in are what make an installed base of customers so valuable

Computer Associates

This lock-in is illustrated by the plight of companies that have massive databases on large IBM mainframe computers running highly specialized software. These companies are heavily locked into these computers and their operating systems, making the business supplying the necessary software quite lucrative, especially for software supplied by only a small number of vendors.

A major beneficiary of this particular lock in to IBM mainframe computers is computer associates. Computer associates products include tape management software, job scheduling software, and security software for the VSE operating environment and tape management software and job scheduling software for the MVS operating environment. Computer associates enjoyed revenues of $432,000 per employee, versus Microsoft's $422,000 and oracle's $180,000. Lock in occurs in this market on two separate levels: the system level and the vendor level. Customers are certainly loathed to switch computers or operating systems: they are locked into an IBM system. But they are also wary of switching vendors for their systems management software; they are locked into their software suppliers, too. Since this software is mission critical, the risks in using a new vendor, especially an unproven one, are substantial. Switching costs for customers include the risk of a substantial disruption in operations. And for critical pieces of information technology, the danger of disruption can dwarf out-of-pocket switching costs. The fact that computer associates software is known to work allows it to command a hefty premium for its software.

Changing software environments at the organizational level is also very costly. One study found that the total cost of installing an Enterprise Resource Planning (ERP) system such as SAP was eleven times greater than the purchase price of the software due to the cost of infrastructure upgrades, consultants, retraining

programs, and the like. These switching costs are endemic in high-technology industries and can be so large that switching suppliers is virtually unthinkable, a situation known as "lock-in."

Lock-in and switching costs is basically the same thing: customers are locked-in to a given vendor or technology precisely because switching would be costly. Hence, switching costs measure the extent of a consumer's lock-in to given suppliers.

6.1.2 Valuing an installed based of Customer

The total switching costs=costs the customer bears + costs the new supplier bears.

Profit from current customer=total switching costs + quality/cost advantage.

- Customer lock in is the norm in the information economy because information is stored manipulated and communicated using a "system" consisting a multiple pieces of hardware and software and because specialized training is required to use specific system.
- Switching costs must be evaluated relative to revenues on a per customer basis. Even small switching costs can be critical in mass markets such as the telephone industry or consumer electronics.
- Small consumer switching costs can constitute large barriers to entry, especially for mass-market products. For example, changing ISP account from World link to Mercantile requires changing an e-mail address also or the users of the Hotmail lock-in to personalized advertisements.
- Total switching costs include those borne by the consumer to switch suppliers and those borne by the new supplier to serve the new consumer.
- The present discounted value to a supplier of a locked in customer is equal to that customer's total switching costs, plus the value of all other advantages enjoyed by the incumbent supplier based on lower costs or superior product quality, real or perceived.

Valuation principle can be used for several purposes:

- First by anticipating the value of tomorrows installed base of customers you can determine how much to invest today-in the form of price discounting, advertising or R&D, for example- to attract more customers and build that installed base.
- Second, you can use these methods to evaluate a target company whose installed-base of customers constitutes a major asset. Rather than figure out

the revenue and cost streams associated with the target company's customer, you may be able to take a shortcut and calculate these customers switching costs.

Third, valuation information will help inform decision affecting your customer's switching costs- for example, your product design and compatibility decisions.

6.1.3 Classification of Lock-In and associated Switching Costs

The starting point for managing lock-in is to recognize it. Common sources of lock-in include

	Types of lock-in	Switching Costs
1	Contractual Commitments	Compensatory or liquidated damages
2	Durable Purchases	Replacement of equipment, tends to decline with time
3	Brand-specific training	Learning a new system both direct costs and cost productivity, tends to rise over time
4	Information and Database	Converting data to new format, tends to rise over time as collection grows.
5	Specialized suppliers	Finding of new suppliers may rise overtime if capabilities are hard to find/maintain.
6	Search costs	Combined buyers and sellers search costs include learning about quality of alternatives.
7	Loyalty program	Any costs benefits from incumbent suppliers plus possible need to rebuild cumulative use.

If a firm tries to extract more than in profits from a locked-in customer then rivals will be able to steal its installed base. For example, if total switching costs are $100 and the firm tries to extract $110 in profits from the customer, then a rival could pay the $100 in switching costs, undercut the incumbent by $1, and realize $9.00 in profit.

If a firm extracts less in profits from a locked-in customer then it is leaving money on the table – the firm could make more money and still not lose customers. In

the same example, if the firm prices so that it makes $90 from each customer, a rival would have to spend $100 to get a customer worth only $90, so the installed base is protected.

Note that lock-in markets are characterized by sellers losing money up front and then making it back once the customers are locked-in. Accordingly, if a firm over-estimates the extent of lock-in, it's likely to lose quite a bit of money (e.g., many of the spectacular failures from the tech boom.)

Ideally, sellers should find ways to entrench lock-in once it occurs by developing complementary products and extensions. This will do two things: (1) Create profits, assuming the margins on the complementary products and services are positive, and (2) Increase and extend the lock-in.

Profits & Switching Costs in General:

- Profits from a customer = total switching costs + quality/cost advantages
- In commodity market like telephony, profit per customer = total switching costs per customer
- Use of this rule of thumb
  - How much to invest to get locked-in base
  - Evaluate a target acquisition (e.g., Hotmail)
  - Product and design decisions that affect switching costs

1. Contractual commitments

The most explicit type of lock-in is the contractual commitment to buy from a single supplier with specific price and quality. Switching costs includes the explicit terms of the contract and the costs of finding a new supplier/buyer. For example: service contracts for purchased equipment. Bundling of PC hardware with a contractual obligation for Internet service from a particular ISP for a particular period. It raises the consumer's cost of switching to another ISP after the hardware purchase, for the length of the contract.

While making a contract, *beware of contract that guarantees price but not quality*. Buyers are well advised to consider such "noncontractible" aspects of the products or service in advance. The extent of lock in depends on the nature of the contract.

Under *requirement Contracts*, the buyer commits to purchase all of its requirements exclusively from a specific seller for an extended period of time.

Under *minimum order size contracts*, the buyer promises to make a certain quantity of purchases and potentially leaving an *option open* to buy additional supplies from elsewhere as needed if the original vendor is not performing well.

With explicit contractual commitments, the damages for breach of contract may cause the switching costs high. A new supplier may be willing to buy buyer's current contract with the old suppliers. Alternatively, buyer can compensate existing supplier if new supplier offers a significant discount. But, if the liquidated damages in the existing contract are too large to compensate, then buyer has no option than lock-in.

Under *evergreen Contracts*, contract is automatically renewed sixty or ninety days before the initial ending date.

When negotiating such contracts, think beyond the terms, conditions, and duration of the contract itself. It is advisable to consider Switching costs and various options after the contracts terminates. For example, if you purchase a specialized equipment having 10 years of economic lifetime, and if you arrange for a three-year service contract at the time of purchase, consider what your service options will be for the remaining seven years after the initial contract expires. If you enter into a five-year contract with a vendor to manage your customer databases, think carefully about the switching costs you will face in five years time if you seek to change vendors. Design the contract to minimize those costs, by reserving non-exclusive rights to some of the computer code developed to manage and exploit data.

2. Durable purchases

Once purchased the durable goods, it's costly to buy a different durable good, i.e. lose the difference between the price of a new machine and the resale value of the current machine. This gap will be particularly large when the durable good is specialized to a given end-user.

After the initial purchase is made the customer must buy follow on/complementary products that works with the durable equipment. For example, Bell Atlantic lock-in with AT & T for telephone digital switches and its associated products such as transmission and voice messaging equipments. Suppliers of durable equipment derive the bulk of profits if not from their revenues, from "*after markets*" sales.

Some of the other durable purchases lock-in includes medical equipment sold by siemens to hospital, large copiers sold by Xerox to Corporations, Zip drive sold by Iomega to individuals and business.

Switching costs are the net costs of replacing durable goods or equipment. With durable equipment, switching costs fall over the economic life time because of depreciation i.e. *as equipment depreciates, the switching costs fall*. If the equipment quickly depreciates in economic value because of rapid technological progress, then expenditure of such equipment do not lock customer in for long periods. This is called "Self limiting Lock-in".

Incompatibilities and incorporation of proprietary features in durable equipment enhance switching costs and lock-in.

Switching cost can be reduced by recovering some of the initial outlay for the equipment upon replacing it, if there is a market for used equipment. Rival/new supplier will want to accept used equipment to sell their new equipment also reduces the switching costs.

Effective way for customer to reduce or eliminate switching cost based on durable equipments is to rent or lease equipment rather than buying it. But lock-in gives software vendors an incentive to sell their software, rather than rent it out (ASP model). ASPs will strive to increase customer switching costs and lock-in through contractual commitments and customization.

3. Brand-specific Training

With brand specific training, *switching costs rise over the time* because considerable additional time and effort is required to learn and to work with a new brand of product with equal proficiency i.e. it takes time to learn how to use a piece of equipment, system, software. General training (as opposed to brand-specific) does not give rise to lock-in. Magnitude of lock-in is determined by the value of that Knowledge in a competing application.

Costs of learning to use a product or service are switching costs to the extent that the training is product-specific. It include direct costs of learning a new system, plus indirect costs in lost productivity while the switch is made. Increased importance of complex information products and services makes this type of lock-in more common.

Examples of brand specific software training are Ms Office packages (MCSE, MCSD), Oracle Certified Program (OCP), UNIX/LINUX, Java Certified Program (JCP), Cisco networking (CCNA). Example of Enterprise level application training includes ERP, CRM provided by various vendors such as SAP, Oracle-Peoplesoft, BAAN, J.D.Edwards etc. This can also strengthen durable goods lock-in such as training on IBM Mainframe. It shows that software skill is "*self-expanding lockin.*"

The training costs associated with replicating one's proficiency with a familiar piece of software tend to grow more experience one has with the familiar program i.e. Product-specific switching costs associated with learning rise over time - familiarity with the existing system increases, and complementary products are installed.

Competitive forces may simplify and standardize tasks performed by the user of software. Software vender can maintain high switching cost by introducing a series of upgrades that offer enhanced capabilities in return for the investment of additional time learning the new features. New brand overcome lock-in by implementing easy to learn features. Ironically, you are now locked-in to new brand.

With brand specific training, lock in can easily outline an individual pieces of equipment. This is more evident when customer desires 15 standardize all of their equipment by using a single vendor.

For example commercial airlines placing great value on "fleet commonality" having must of the aircraft come from a single airframe manufacturer and even with a similar cockpit configuration. Uniform fleet can result in substantial saving on maintenance and training costs and can improve flights safety. American, Delta and continental agreed to buy all their aircraft from Boeing over next twenty years.

4. Information & Databases

Two aspects of lock-in normally encountered such as while dealing with historical information transferability:

a. Complementary product such as hardware software used to store and manage information, and
b. Information and databases being used.

Here, issues regarding backward compatibility need to be dealt. For example DVD is backward compatible with CDs and can read from CDs, but DVD is incompatible with video tape players, laser disks and phonographs (LPs).

For businesses and individuals, data must be stored in a particular physical form and format. Switching costs are the costs of converting data to a new format.

With information and databases, switching costs may be falling as technology improves; yet tend to rise with time as the volume and importance of data increase and more information comes to reside in the historical databases. Switching cost rises as more information is archived or collected. Even if automation is possible, there will be some unavoidable costs of conversion and transfer, including labor, risk of loss of data, and possible temporary loss of use.

To limit switching costs:

a. Keep control of information and databases by using *standardized formats* and *open interface technology*.
b. Make interface specifications available for compatible products.
c. Support and follow on open interface design for *compatibility*.

5. Specialized Suppliers

A specialized supplier is the flip side of a customized product or service. Lock-in occurs when buyers purchase specialized equipments gradually over time as by picking a single source supplier of the equipment. The more specialized an input is, the harder it will be (later) to switch to a different input.
EX: PC OEMS and Intel's Red-X and Intel Inside. Hold-up and lock-in go hand in hand in these cases. EX: IBM designs Intel's 8086 into the PC.

With specialized equipment, the switching costs depend on the ability of new suppliers to offer comparable equipment when needed in the future. These costs can rise over time if other potential suppliers do not maintain their capabilities.
Large buyer of specialized needs commonly find their options limited after they initially pick a supplier to serve them.

Reduce potential lock-in by devising the following procurement strategies

a. Encourage competition
b. Get a variety of commitment and options as part of selecting a winner for a big contract and/or
c. Keep alive an alternative source of supply-a strategy commonly known as dual sourcing. E.g. IBM's dual sourcing strategy with Intel and AMD.

6. Search Costs

A search cost is the costs incurred by buyers and seller to locate/find each other and establish a business relationship. For example, cost of finding Insurance, bank, credit card, cell phone co., grocery store etc. Searching for a different seller than your current one can involve comparing all sorts of features, and can easily be costly online as well as offline.

Web portals and online stores such as Yahoo! And Amazon.com rely on these search costs as one factor that will help keep consumers from switching away to other portals or online sellers.

Search costs depend on the time and expenses involved in locating attractive new suppliers and the costs incurred by vendor in locating customer.
An Internet economy, search engine and intermediaries have minimized the search costs drastically by binging buyers and sellers in a common market space e.g. priceline.com, ebay.com, Buy.com, Froogle.com etc.

7. Loyalty Programs

These type of lock-in is not due to technological factors but rather how firms price. Hence, it is also called an *artificial lock* in where customers are rewarded for their repeated purchases. These rewards are tied to continued loyalty to the Seller. These loyalty programs involve explicit inducements to customer to buy largely or exclusively from a single vendor. For example, Airlines frequent flier programs, hotel's frequent guest program, retailers giving one unit free after ten purchases and developing one role of films free after ten roles.

Loyalty program creates switching costs in two ways:

a. Forfeit certain credit if stop buying from regular suppliers. E.g. 25000 miles coverage to get one free ticket when you have 15000 miles in your account. So the 15000 miles will be lost if you fail to fly another 10000 miles before they expires.
   Options: minimize the switching cost by changing the carrier after cashing in the bulk of credit.
b. Benefits based on cumulative usage.
   E.g. double miles or preferential services for users who fly more than 50000 plus miles a year.

Loss of rewards is part of switching cost. Loyalty programs need to observe the customer buying behavior pattern before offering. With loyalty-inducing programs,

customers can with relative ease calculate the costs they bear when switching vendors, both in terms of lost rewards and of reduced marginal returns to additional business. Some vendors will buy credits from their competitors, much like competitive upgrades in the software industry. For example, an airline will often offer Personalized Pricing such as "Gold status" to someone who holds gold status on the competing airlines in hopes of inducing then to switch carriers.

The Online bookstore Amazon.com, in its "Associates Program" anyone who recommends a book on his or her Web site can add a link to Amazon that can be used by those who wish to purchase the book through Amazon. IN exchange, the site that created the link to Amazon gets a "referral fee" of 5.124 percent of the purchase price of the book. As of March1998, there were more than 35,000 Amazon associates.

This base of associates gives Amazon a potent weapon in its battle with Barnes and Noble. Barnes and Noble has stuck back with its Affiliates program, which offers on-line bookstores order processing, payment and shipping services and up to 7 percent of the revenue from the book sales.

6.1.4 Suppliers and partners face lock in, too

It is not uncommon for suppliers and customers to be locked in to each other at the same time. Such bilateral, or two-sided, lock in can lead to a certain balance of terror, not to mention some high stakes negotiations. The classic case was that of a railroad that built a spur line to serve an individual customer, such as a coal mine or a coal fired power plant. Once the line was built, it had little or no value apart from serving the one customer, so the railroad was locked into that customer. At the same time, the customer would find it very expensive to finance a new spur line, so the customer was locked into the railroad, leading to what economists call a *bilateral monopoly*. The same relationship exists in the information economy when a software vendor writes a specialized piece of software for an individual client.

Nor is lock in restricted to customers and suppliers; partners are susceptible as well. For example, Pratt & Whitney, as the manufacturer of certain aircraft engines designed specifically for Douglas aircraft, was long locked into McDonnell Douglas, even though it had no intention of selling the engines directly to McDonnell Douglas.

We see seller lock in, bilateral lock in and partner lock in frequently in information industries. Software houses that initially specialized in writing software for Apple computers learned all too soon that they needed to retool and thus bear very real

switching costs: they had to become adept at writing programs to run on DOS or Windows. Likewise for companies specializing in writing games for Sony's play station or the Nintendo 64 platform.

6.1.5 Lock-in Cycle

A life-cycle management is a thing in the future. Given different views of sellers and buyers regarding their tolerance for risk, discount rate, operational constraints, and future perspectives of market, there are sufficient room for mutual benefits from a life-cycle deal.

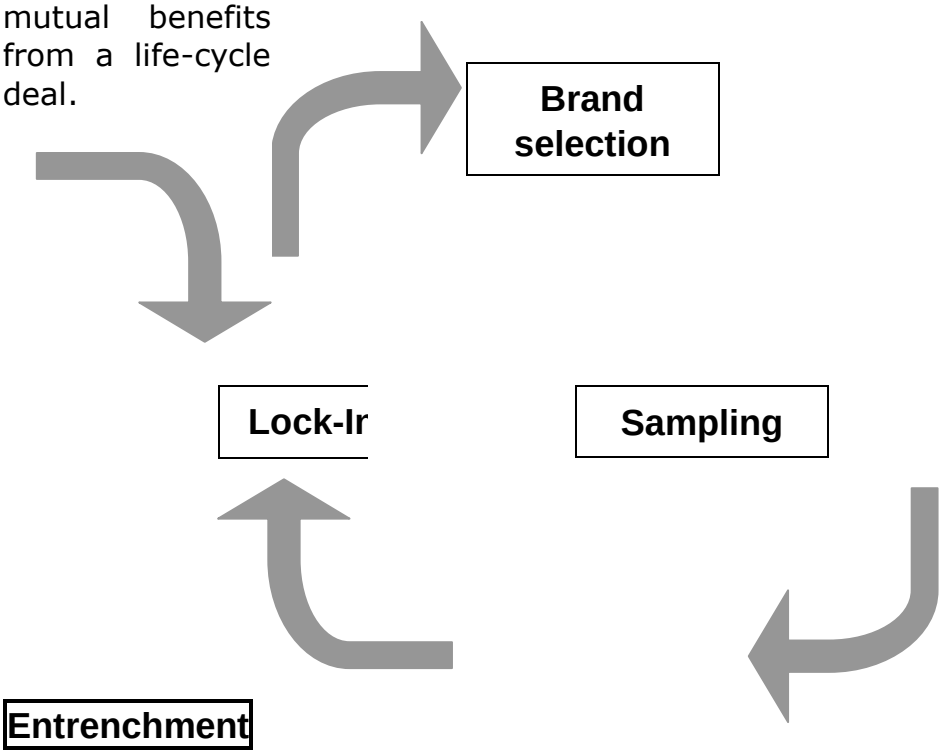

Fig: Lock-in Cycle

The lock-in cycle consist of the following four phases:

1. Brand-selection—no locks-in.
2. Sampling— period when firms compete for customers
3. Entrenchment— learning increases lock-in
4. Lock-in— switching costs at their peak
5. Repeat

1. Brand-Selection

The easiest place to hop onto the lock in cycle is at the *brand selection* point that is when the customer chooses a new brand. Brand choice could mean purchasing a new multimillion dollar switch, buying a videodisk player, purchasing a new software program or signing up for a new frequent flier program. The first time a specific customer picks a brand, that customer will have no preference for any one brand based on lock-in. You are not borne "lock-in"; you only get locked in by virtue of choices you make.

2. Sampling

Brand selection is followed by the sampling phase, during which the customer actively uses the new brand and takes advantage of whatever inducements were made to give it a try. One of the dangers of offering powerful sweeteners /rewards to attract new customers is that they will take the free sample but never turn into revenue paying customers. Since the marginal cost of producing the information goods are quite low, extending introductory offers to new customers is especially tempting for information providers under this sampling phase.

3. Entrenchment

Customers who do more than sample move into the entrenchment phase. This is when the customer really gets used to the new brand, develops a preference for that brand over others, and perhaps becomes locked in to that brand by making complementary investments. Usually, the supplier tries to drag out this phase and delay active consideration of other brands hoping that the customers switching costs will go up.

4. Lock-in

The entrenchment phase culminates in lock-in when the switching costs become prohibitively expensive.

We return to the brand selection point when the customer either switches brands or actively considers alternative brands without selecting them. Of course, circumstances will have changed in comparison with their last time around the cycle. Certainly the customers switching costs are higher than the first time around. For specialized products as in our pentagon examples some alternative suppliers may have dropped out in the interim or lost capabilities.

Summary

Switching costs are the norm in information industries. When the costs of switching from one brand or technology to another are substantial, users face lock-in. The authors argue that the "friction free" economy is a fiction, and that in the Information Age users will be facing more—not less—instances of lock-in. Identify, measure, and understanding the costs of switching technologies or brands (both for companies and their customers) will be critical to success in today's economy. This chapter describes the common patterns that give rise to switching costs to help companies recognize and measure lock-in. As a customer, failure to understand switching costs will leave you vulnerable to opportunistic behavior by your suppliers. As a supplier, switching costs are the key to valuing your installed base. Supplier will be unlikely to successfully build an installed base of customers- on the of the most potent assets in the information economy-unless supplier can overcome the initial costs of switching customers from rival firms. To help defray these costs, supplier must anticipate customer's lock-in cycle, including the costs that would-be customers will incur if they leave. Using company examples, it explores the different kinds of lock-in, outlines strategies to incorporate proprietary features into your product, and describes ways to coordinate your strategy with that of your partners. The essence of lock in is that your choices in the future will be limited by your investments today. These linkages differ from one technology to another, but are predictable.

Company Examples: Bell Atlantic, Computer Associates, the Pentagon, IBM, Intel

6.2 Managing Lock-in

In this chapter we deal with the strategies for managing lock-in. There are two strategies for managing lock-in. Among them first one is directed at **buyers of information technology**, which includes virtually everyone in today's economy. Buyers' goal is to avoid hold-up after investment is made or be compensated up-front if hold-up is inevitable. To help prevent to make mistakes in dealing with lock-in we are provided with a catalog of strategies and to avoid monopoly exploitation also.

And the second strategy is directed at competitive **strategies for companies that sell their products and services** in markets where customer face significant switching costs. If you're trying to break into the market with a new technology, you can ill afford to ignore the costs that your target customers must bear to switch to your products. By the same token, if you are an established player, the extent of the threat you face from upstarts is driven in large part by your customers total cost of switching from you to your competitors. *Understanding and valuing customer lock-in is a key component to competitive strategy in the network economy*.

Sellers need to understand how to overcome lock-in when it acts in rivals' favor and realize whether it's worth it.
maximize the extent of lock-in capture the value of lock-in

Information strategies for managing lock-in
1. Lock-in strategy for buyers: minimize lock-in and avoid monopoly exploitation
2. Competitive strategy for sellers: switching from your competitors to you

6.2.1 Lock-in Strategies for Buyers

Lock-in is unavoidable. Every user of information technology faces switching costs. While selecting a brand of software to build a mission-critical database, a major consideration in this decision should be how difficult it may be to convert data to other formats and the extent of vendor dependency to improve database. Properly measuring these switching costs before lock-in occurs could be worth millions of dollars to the organization.

Basic strategy for buyers of information technology who are anticipating lock-in includes the following key elements:

Bargaining for compensation or some form of protection at the beginning before lock-in. emphasize your influence as an influential customer look ahead and take steps
keep your options open: dual sourcing, demand compensation watch out for partial contracts

The key for buyers is to act while they still have leverage— before the lock- in occurs and take steps to minimize the switching costs over the life of the contract relationship and/or throughout the lock-in cycle.

Bargaining Before You Become Locked In

As a buyer negotiating for the purchase of new information system, the best time to bargain for all manner of goodies is before you get locked-in. Negotiate for initial discounts up to the profits you create for the Seller (which equal total switching costs).

Some examples are: initial discount on hardware, an extended warranty rather than a service contract, support in switching from previously used system, service

and support guarantees, and most favored customer treatment. Remember that "whatever concessions you seek, your bargaining position will be weaker once you make sunk, supplier specific investments".

How to extract the best deal?

1. Emphasize the switching costs that buyer will need to incur in selecting a new vendor, such as retaining costs and disruption costs. This tactic is especially effective if buyer can credibly threaten to continue using the existing system for a while and thereby avoid bearing any switching costs at all. If a new supplier is convinced that the current system still works, or that your costs of switching to his new system are large, you stand to get a

better deal.

Recall that your firm is worth an amount equal to switching costs to the seller. So the higher switching costs are expected to be, the more aggressively the seller will pursue your business (and the more you can get in exchange).

2. Another tactic to extract favorable terms up front is to convince the supplier that you are the type of customer most worthy of a very attractive initial package. Perhaps you can establish that you are likely to make substantial follow-on purchase.

3. A third approach is to convince supplier that you are capable of influencing the purchase decisions other customer will make.

4. This is a wonderful tactics if you can pull it off: you are effectively getting a referral fee for these customers in the form of an up-front discount. You are in the best position to obtain favorable treatment as an "influential customer" if you can make the case that (1) you will generate a large number of additional unit sales to other customers, (2) these sales will be at a high gross margin, and (3) these effects will be long-lasting because of lock-in.

Do's and Don't for Buyers

Don't reveal too much about future vulnerabilities.

Do insist suppliers to sign a contacts offering protection throughout the lockin.

Beware of vague commitments offered be a supplier eager to lock you in.

Example: Motorola and Rockwell contracted for *fair, reasonable* and *non-*

discriminatory terms for a license of Motorola 28.8kbps modem technology to Rockwell. But later they disagree over what was *fair*.

Keep your option open.

In entrenchment phase, devise strategy to partially switch to other supplier to gain leverage in negotiations about other parts.

Avoid creeping-in.

Even if lock-in is modest during sampling phase, it can grow as more equipment is purchased, as more data are stored in certain formats, and as your customer in turn become accustomed to certain typed of products or product features for which you are reliant on a particular supplier.

Extract favorable terms from your supplier each and every time you become more entrenched as the results of another round of hardware/software purchases, brand-specific training.

Keep information on usage to yourself.

Buyer's Checklist

Bargain for initial discount or support for switching from previous system.

Convey the impression that your benefits from switching are small and the costs large.

Depict yourself as an attractive customer, because of either your own future purchases or your ability to influence other purchases.

Keep your options open via second sourcing. Partial switching is a way to gain leverage in negotiation.

Watch out for creeping lock-in, retain information about usage records.

Seek protection from monopolistic exploitation down the road, but beware of vague promises offering such protection.

6.2.3 Lock-in Strategy for Sellers: hold your customers and switch from your competitors to you

Buyer's and seller's strategies are closely related, and tensions are inevitable in any buyer-seller relationship. While looking at the lock-in cycle, there is a natural tug of war between buyers and sellers: sellers hope to profit from locked-in buyers, while buyers seek to strengthen their bargaining position by keeping their options open. However, the lock-in cycle is not a zero-sum game. Both buyers and sellers benefit by structuring their relationship wisely at the outset of the cycle.

Three key principles

The basic strategy for dealing with lock-in should utilize the following three key principles**.**

1. Investment: Invest in an installed base

Invest to build an installed base of customers at the least possible costs. Companies unwilling or unable to offer concessions to gain locked-in customers can't prevail in a competitive battle. Discover how valuable different customers are to you and mold your offerings to match.

Case: Iomega

In 1995, Iomega launched Zip drive, a removable storage device for personal computers with seventy times the storage capacity of traditional floppy drives (100 MB vs. 1.44 MB). Iomega designed its Zip system so that Zip drives would accept only Zip-compatible disks manufactured by Iomega. The plan was to build an installed base of Zip-drive users and then earn profits from the sale of Zip disks to these locked-in users. To realize this strategy Iomega invested in building an installed base of Zip drives, using heavy promotional spending and offering deep discounts on the drives, setting the price below their break-even.

Iomega realized these investments were necessary since there were numerous other competing storage devices, including tape backup systems and ever bigger hard drives. Confident in its product, Iomega hoped that, based on favorable word-of-mouth advertising, initial sales of the drives would spur sales of more drives and that profits would eventually flow as owners of Zip drives purchased Zip disks on which Iomega earned a good margin. By 1998, Iomega had shipped 12 million drives.

look ahead at the whole lock-in cycle: o Use of present discounted value calculation to analyze financial long-run perspective, or

- o estimate the value of a locked-in customer(or profit) = switching cost + cost/quality advantage. o Recognize that your locked0in customers are valuable assets.

fight for new customers:

- o traditional economics principles and "perfect competition" model retain no value in the information economy. o Under classical perfect competition, many small firms compete on price and such intense rivalry drives price to cost and excess profits to zero. o The normal return on initial investment in attracting and building the installed based is called *quasi-profits*: which looks like real (excess) profits.
- o The superior financial performance and normal rate of return can be achieved in the locked-in market by product differentiation,

offering superior products than rivals can offer, or by cost leadership, achieving superior efficiency. o In the network economy, simply being first to market can generate both *differentiation* and *cost advantages*.

structure the life-cycle deal to best reflect both buyer's and seller's needs, tolerance for risk, time value of money, consider future evaluation of the market.

high market shares don't imply high switching costs

Form an accurate estimate of each customer's future switching costs to determine the revenues you can expect to earn from that customer and thus the maximal prudent investment you should make to acquire the customer in the first place.

- The emergence of aftermarket rivals can serve your customer without imposing significant switching costs on them. For example: Borland's strategy in offering Quattro Pro, to attract Lotus 1-2-3 users and minimize their switching costs.

attract buyers with high switching costs o the higher a buyer's switching costs, the harder it is worth working to get the buyer.

sell to influential customers o the appropriate measure of a buyer's influence is the total gross margin on sales to other customers that results from convincing this buyer to purchase your product.

multiplayer strategy:

- selling to influential buyers takes advantage of the fact that one customer can influence others. o when several parties are involved in a purchase, look for opportunities to exploit divergent interests.

2. Entrenchment: encourage customer entrenchment

Aim for customer entrenchment, not mere sampling. Entrenchment goal is to structure relationships with customers to simultaneously offer them value and induce them to become more and more committed to sellers' products, technology and services.

The following courses of actions are being followed in this phase:

Entrench by personalized product line design:

- Design products and promotions so that customers continue to invest in sellers' products or system and become more and more committed to seller over time. The seller should incorporate new proprietary features to raise switching costs or incorporate proprietary improvements into your system to lengthen the lock-in cycle and

convince customers to reaffirm their choice at the next brand selection point. ○ Offer value-added informational services to deepen buyers and

sellers relationship.

Loyalty programs and cumulative discounts: volume discounts ○ Vendors explicitly control buyers switching costs with the "artificial" loyalty programs, a form of volume discounts: favorable terms for *incremental purchases* to customers who are heavy users on a cumulative basis. These methods require tracking individual customer purchases over time, established accounts for each customer that record purchases, and maintaining a balance of some credits associated with frequent buying. ○ These artificial loyalty programs will turn conventional markets into lock-in markets, as consumers find themselves bearing significant switching costs in the form of foregone frequent-purchaser benefits when they change brands. ○ Successful customer loyalty programs will reduce the price sensitivity, permitting the seller to charge higher list prices in order to support the costs of the awards given when customers cash in their cumulative benefits.

3. Leverage: Leverage your installed base

It is the strategy set by seller that maximize or leverage the value of installed base by selling complementary products to loyal customers and selling access to these customers to other suppliers.

The following courses of actions are being followed in this phase:

Sell complementary products: economies of scope ○ It is one of the most effective ways to win the lock-in markets by expanding the set of complementary products or some "ancillary" goods or services when buying the primary products. For example: maintenance of durable equipment or the purchase of upgrades or extensions to a computer program.

○ Examples: *Quicken* and *Netscape*

Quicken supplies checks and envelopes along with complementary products (tax preparation software), online services (shopping for insurance and mortgages on Quicken.com) and some more powerful business products (QuickBooks).

Netscape extracting the most value from its installed base, by selling an integrated package of complementary products,

Communicator that consists of the browser, an e-mail tool, a collaborative tool-Collabra, a calendar and scheduling tool.

Sell access to your installed base: *cross-marketing* ○ Microsoft's dealing with content developers such as Star Trek and encouraging them to build sites with special features accessible only via Internet Explorer.

Sell differential prices for new related products to achieve lock-in

Attempt to raise search costs: product differentiation

Explore first-mover advantage and control cycle length through multiyear contract and negotiation, stagger termination date and frequent versioning.

Summary

This chapter explains how to exploit lock-in when you are offering an information system, and how to avoid it—or at least anticipate it—when you are the buyer. Consumer lock-in to specific technologies, and even to specific brands, is an everpresent feature of the information economy. Both buyers and sellers have much to gain from evaluating the consequences of their actions over the entire lock-in cycle. Short sightedness can be extremely costly when switching costs are involved.

The first part of this chapter is aimed at buyers of information technology, which includes virtually everyone in today's economy. To help prevent mistakes in dealing with lock-in, the authors provide a catalog of strategies to minimize lock-in and avoid monopoly exploitation. In addition, the authors show how individuals can make their own switching costs work in their favor if they get the timing right. The purchasers of information systems and technology should follow these points: Bargain hard before locked in for concessions, pursue strategies like second sourcing and open system to minimize the extent of lock-in and look ahead to the next time while picking a vendor , and take steps at the outset to improve bargaining position.

The second part of the chapter outlines competitive strategies for companies that sell their products and services in markets where customers face significant switching costs, and shows how these strategies can be put into practice.

A number of strategies for sellers are also devised such as:

1. Be prepared to invest to build an installed base through promotions and by offering up-fronts discounts. 2. Cultivate influential buyers and buyers with high switching costs. 3. Design your products and your pricing to get your customers to invest in your technology, thereby raising their own switching costs. 4. Maximize the value of your installed base by selling your customers complementary products and by selling access to your installed base.

Company Examples: Iomega, Kodak, Netscape, Microsoft, Cisco Systems, Visa/MasterCard/American Express

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