

The new era of Innovation



Envisioning
Management Consulting

Outline



1. New era of Innovation
2. Closed Innovation Paradigm
3. Open Innovation Paradigm
4. The Business Model
5. Closed to Open innovation
6. Business Models & managing IP
7. Making the transition

The new era of Innovation



Today's *21st century* economy takes the business environment in terms of competition to a complete new level. Concepts as: Open Innovation, collaboration, peering, sharing, value networks, co-creating, market-driven and so on are words that describe a new way of competing within domestic and global markets. An economy where a company can not longer rely solely on their own capabilities. In order to successfully compete a company must/need to collaborate in a network with suppliers, competitors, customers etc.

Whereas the *20th century* economy heavily relied on concepts as: Closed innovation, value chains, supply driven, creating Intellectual Property etc. An economy where companies could be seen as an individual. In order to compete it was believed so that a company must do and keep everything in house to protect themselves from competition. Sharing information, co-creating, building value networks was more seen as threat to Intellectual Property, rather than an opportunity for competition as it is today.

The main difference of competition as it is today compared to the 20th century can be explained through "*Chess*" & "*POKER*"

The new era of Innovation



Chess "20th Century"



- Innovation takes place based on existing information. You know the pieces, you know what they can and can not do.
- Innovation is done in-house and strictly controlled by the company itself.
- Threats of competition are well-known in operating markets. You know what competition can or is going to do.
- The field of innovation is clear and can be overviewed at once.

Poker "21st Century"



- Innovation takes place based on non-existing information and is based on prediction
- Innovation is done through a network of integrated business partners varying from supplier to customer. Less control.
- Threats of competition are often un-known in operating and non-operating markets. You might have to invest more money in order to see the next step in competition.
- The field of innovation is often unclear. A next step in innovation is often not foreseen immediately.

The new era of Innovation



In a world of rapid change leading to new potential markets, innovating companies will need to learn how to play Poker as well as Chess. These companies cannot capture the potential value latent in their ideas unless they change the way they think about taking them to the market. No company can afford to rely solely on its own ideas anymore, and no company can restrict the use of its innovations to a single path to market. Companies have to get used to a market where “OPEN INNOVATION” is becoming one of the companies most important strategies and processes to pursue.

All companies will need to improve their ability to experiment with new technologies in new markets together with a range of network partners. As we have seen whereas Chess is played with 2 players, Poker is played with multiple partners. The more partners around the table, the bigger the success often is. Just like in a Poker game where usually the more players participate, the more money can be won. Companies have to view newcomers as experiments that might lead to new sources of technology and growth. Experimenting is learning by doing.

As the innovation paradox says: In today's business economy, it's not success or failure - it's success "and" failure that lead to successful innovations.

Closed Innovation Paradigm



Closed Innovation = It is an approach that is fundamentally inwardly focused, which fit well with the knowledge environment in the early twentieth century. Most of its knowledge creation is done through processes that have been formed and structured inside the company. It's a mentality that believes that "we as a company" can do everything in-house and solely rely on our competences from R&D to sales.

Closed Innovation can be seen as an economy/landscape existing of companies which have the characteristics of "Castle's".;

- Companies have their own internal R&D and do everything within the walls of their company.
- Companies were relatively self-sufficient, receiving occasional visits from outsiders. The same counts for the fact that the company itself rarely made a step outside the company looking for innovative ideas from external partners.
- The companies walls can be seen as Intellectual Property which carefully protect all new innovative ideas strictly internally within the company.
- Scientists, Research labs, university research, governmental collaboration was not considered to be of any added-value to a companies' research and development program. Like a King of a Castle would believe "we can do it ourselves".
- Solely relying on our strengths is what a company believed in.

Closed Innovation Paradigm



The result of these closed innovation approaches led to a golden age for internal R&D. Corporate R&D organizations were working at the cutting edge of scientific research. Inside their four walls they featured the best equipment, staffed by the best people and focused on long-term R&D programs that were funded at significant levels. The importance of having an internal R&D organization within the company, was viewed as competitive advantage and a barrier to entry for competition. Any company that wanted to enter the industry would have to make similarly large long-term investments in order to compete.

There were more reasons to invest in these huge R&D organizations for companies;

- Making sure that the quality, performance, and availability of particular technology for production was at the highest level possible. (having full control)
- Companies who are keeping flows of new ideas into its own R&D pipeline, will finally benefit from these ideas that will lead to new products and capture the value from these ideas.
- Internal R&D was seen as sustainable over time, there where a flow of new ideas will allow the company to reinvest in further research, which in turn will lead to future profitable products.
- Internal R&D was seen as the only option to gain competitive strength through the fact that there were only a few capable external alternatives for innovation at the time and since it was easy to capture value from one's R&D when one controlled the entire value chain of business activities, due to dominant positions in one's product markets.

Closed Innovation Paradigm



Nevertheless, these enormous well functioning R&D organization also had its drawbacks. The biggest drawback in internal R&D organizations dealt with management issues between the Research Organization on one hand and the Development organizations at the other hand. Both should work as one integrated part, but often this isn't the case and collaboration leads to friction.

Whereas the researcher is constantly looking for new ideas and new technologies, the developer needs to integrate the ideas and technologies into new products. Often this leads to several dilemma's within the integration process to the final development of the product. This due to a different perspective and approach to R&D.

Research Organization

- Cost center
- Discovery: Why?
- Hard to predict
- Hard to schedule
- Create possibilities
- Identify problems and how to think about them

Development Organization

- Profit center
- Execution: How?
- Hit targets
- Hit schedules
- Minimize risk
- Solve problems within constraints

Closed Innovation Paradigm



Problems that occurred between research organization and development organization were as following;

- Researcher's ideas were not suited as input to convert into products.
- Inputs that are not well understood require further development before they can be used in new products which is expensive, takes time and leads to delays in product development.
- Poorly understood inputs pose a greater risk that the development organization will miss the product introduction schedule.
- Since the development organization must integrate the new research inputs with many other technologies, the interactions of the new technology with the rest of the system make it extremely difficult to execute complex programs.
- The researcher cost center wants to get moving on to a new idea, whereas the development profit organization wants more work done on the current research idea before taking over its further funding.
- Conflicting objectives of research and development create a budgetary disconnect as well.

Closed Innovation Paradigm



In order to solve these problems companies ended up managing this disconnect was to create a buffer that separated the two processes so that development was not tightly coupled to research. This buffer effectively placed research ideas on the shelf until the development organization was ready to work on them. The research center would usually say “we’re done with this”, while the developer would say “We don’t think its ready yet”. Thus projects would stop receiving further development from research. The projects would sit in the buffer, on the shelf, waiting for the organization to make use of them.

In certain industries the golden ages continues, and this internally focused approach of R&D remains well suited to managing innovation. Nevertheless, there is an upcoming trend in today’s business where Closed Innovation paradigm has become fundamentally obsolete. Several factors have eroded this program and is shifting it to a more Open Innovation paradigm. There are 4 important erosion factors that will be discussed before moving on to the Open Innovation approach.

Closed Innovation Paradigm



Factor 1: The increasing availability and mobility of skilled workers

This factor has many causes. Among them was the explosion in college graduates and post-graduate students fostered by governmental aid to support higher education. The growth of this population represented a large increase in well trained, knowledgeable people which can produce useful knowledge. Due to trends in the labor market, the mobility of trained workers has increased where information gained in internal R&D organizations started to flow to other institutions like universities, suppliers, customers, and other internal R&D organizations. One company could profit from the training and experience of another company hiring away some of the workers who had been working for many years in certain R&D labs. In later stadiums even international talented foreigners' were hired to benefit from.

Factor 2: The Venture Capital Market

A large growing pool of Venture Capitalists created real hazards for companies that made significant commitments to internal R&D. The knowledge that they created in their R&D organization and stored in their buffers between research and development was not much greater risk. Individual personnel from their labs could be hired away by attractive risk/reward compensation packages to join new startup firms.

Closed Innovation Paradigm



Factor 3: External options for idea sitting on the shelf

As a result of the combination of factor 1 and 2, there exists a second outside path to market for many of these ideas that are sitting on the shelf waiting to be picked up. Instead of waiting to be picked up, these ideas might instead go outside on their own. As product life cycle shorten and as external options grow, it becomes increasingly important for companies to increase the process the way they create knowledge. If companies internal development organization is not ready to use a new research result, it can not blithely assume that the result remain on the shelf, available whenever the development group chooses to work on it. Competition financed by Venture Capitalists have other ways of commercializing their ideas. And there maybe new markets to explore with these ideas which established companies may be poorly suited to address.

Factor 4: The increasing capability of external suppliers

Back in the days external companies/suppliers were not able to produce the same quality/performing products as companies can today. The external supply base is much more extensively developed in most industries, which results in suppliers who can offer now often equal or superior quality what a company achieve internally.

Open Innovation Paradigm



Open Innovation concept = Open Innovation is a new approach based on a different knowledge landscape, with a different logic about the sources and uses of ideas. It basically means that valuable information and ideas can come from inside and outside the company and can go to market from inside or outside the company as well. This approach places external ideas and external paths to Market on the same level of importance as that reserved for internal ideas and paths during the closed innovation era.

One major development in the era of open innovation is the fact that the knowledge monopolies built by centralized R&D organizations of the 20th century have ended. Knowledge is far more widely distributed by today, when compared to the 1970's. The landscape of knowledge has drastically shifted to an open system of universities, scientists, public databases, research institutions and companies who are all producing high quality information as never seen before.

Within open innovation more and more products and services are not invented in-house, but gained from external resources, with advantages that a company does not have to reinvent the wheel. External sources can often do the job more effectively, where internal sources may deliver wheels at lower volume and higher costs, relative to what a world-class outside vendor, serving a worldwide market, can provide.

Open Innovation Paradigm



Internal R&D is used in a completely different way as it is used in an closed innovation paradigm. A company organizes its internal R&D for the following reasons;

- To identify, understand, select from, and connect to the wealth of available external knowledge
- To fill in the missing pieces of knowledge not being externally developed
- To integrate internal and external knowledge to form more complex combinations of knowledge, to create new systems and architectures.
- To generate additional revenues and profits from selling research outputs to other firms for use in their own systems.

The company will also need technologies that its internal research organization will not create. Research takes a long time to deliver useful outcomes, and company strategies change at a far faster rate than the rhythm of basic research. In the new paradigm, the company's businesses can not wait for the internal technologies to arrive; in-stead they should access what they need, as soon as they need it, either from inside the company's own research labs or from the knowledge creation in someone else's lab.

Open Innovation Paradigm



Within the case of MERCK “ the worlds leading pharmaceutical” accounts for about 1 percent of the biomedical research in the world. To tap into the remaining 99 percent, we must actively reach out to universities, research institutions and companies world wide to bring the best technology and potential products to MERCK. The reason is quite simple, biomedical research is too complex for a single company to handle alone. MERCK has now charged its internal scientists with a new task: “Create a virtual lab in the research area”, meaning don’t just create excellent science in their own lab; rather build connections to excellent science in other labs, wherever these might be. A new era where collaboration has taken a centralized position in the landscape of knowledge creation.

One of the most advance aspects of the open innovation paradigm is that collaboration in terms of external knowledge creation has not stopped at the point of collaboration with universities, scientists, suppliers, competitors etc. It even has gone up to the stage where companies in an open innovation platform collaborate intensively with consumers “the final users of a product”. These group of intensive users who collaborate closely with companies to codevelop/produce new products are called “Lead Users”. This group becomes of major importance for new product development within companies.

Open Innovation Paradigm



Consumer involvement within the open innovation paradigm has emerged rapidly. To see the difference between the mind-set of companies living in a closed innovation vs. an open innovation paradigm, the following statements about consumer involvement in R&D will explain;

Closed Innovation

- “consumers are consumers”
- “Consumers wait patiently until a new product is launched”
- “Consumers are passive human beings”
- “We think we know what they want, close interaction is not needed”
- “Keeping the customer on distance”

Open innovation

- “Consumers are producers/codevelopers”
- “Consumers demand what is asked for in terms of product specifications”
- “Consumers are active human beings”
- “We really know what they want through close interaction”
- “Inviting the customer in-house”

The Business Model



The type of business model to be used influences the innovation success. The same technological innovation might vary in terms of success by using different business models. First of all, what is a business model and what are its functions?

- A business model explains the value proposition. This is the value created for users by offering services/products based on technology
- A business model identifies market segments. The users to whom the technology is useful and the purpose for which it will be used
- A business model defines the structure of the firm's value chain. This is to determine the complementary assets needed to support the firm's position in the chain.
- A business model specifies the revenue generation mechanism of a firm and estimates the costs structure and target margins of producing the offering, given the value proposition and value chain structure chosen.
- A business model describes the position of the firm within the value network linking suppliers and customers, including identification of potential complementary firms and competitors.
- A business model formulates the competitive strategy by which the innovating firm will gain and hold competitive strength over rivals.

The Business Model



The key elements of a business model in more detail:

Value proposition

The value proposition explains how your entire business model differentiates itself from competition. To be more precise: “why a consumer should buy a product or use a service. This statement should convince a potential consumer that one particular product or service will add more value or better solve a problem than other similar offerings”.

Market segment

The market segment is those customers to whom the value proposition is targeted and from whom resources will be received. Targeting a specific market with a clear value proposition informs choices of what must be done in the technical domain to provide the best possible solution for the customer.

Value chain

The value chain coordinates the many activities from production to after sales needed to deliver the product to the end-user. A value chain must achieve two goals: 1. It must create value throughout the chain. 2. It must allow the firm to claim some sufficient portion of value from the chain to justify its participation.

The Business Model



Cost structure and target margins

This element explains issues as: how a customer will pay, how much to charge, and how the value created will be apportioned between customers, the firm itself, and its suppliers. Many options as outright sale, renting, charging by the transaction, advertising and subscription models, licensing, and even giving away the product and selling the after sale support and services. Once you know the general specifications of the offering and the general contours of the value chain, a firm can start to develop a cost structure. Following the preliminary sense of price and cost yields the target margins.

Value network

The value network shapes the role that suppliers, customers and third parties play influencing the value captured from the commercialization of an innovation. Building strong connections to a value network can leverage the value of a technology.

Competitive advantage

The overall ability of building competitive strengths throughout the value chain. Competitive advantage is usually gained through differential access to key resources or the creation of internal Processes valuable to customers and difficult for competitors to imitate.

The Business Model



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Market segment

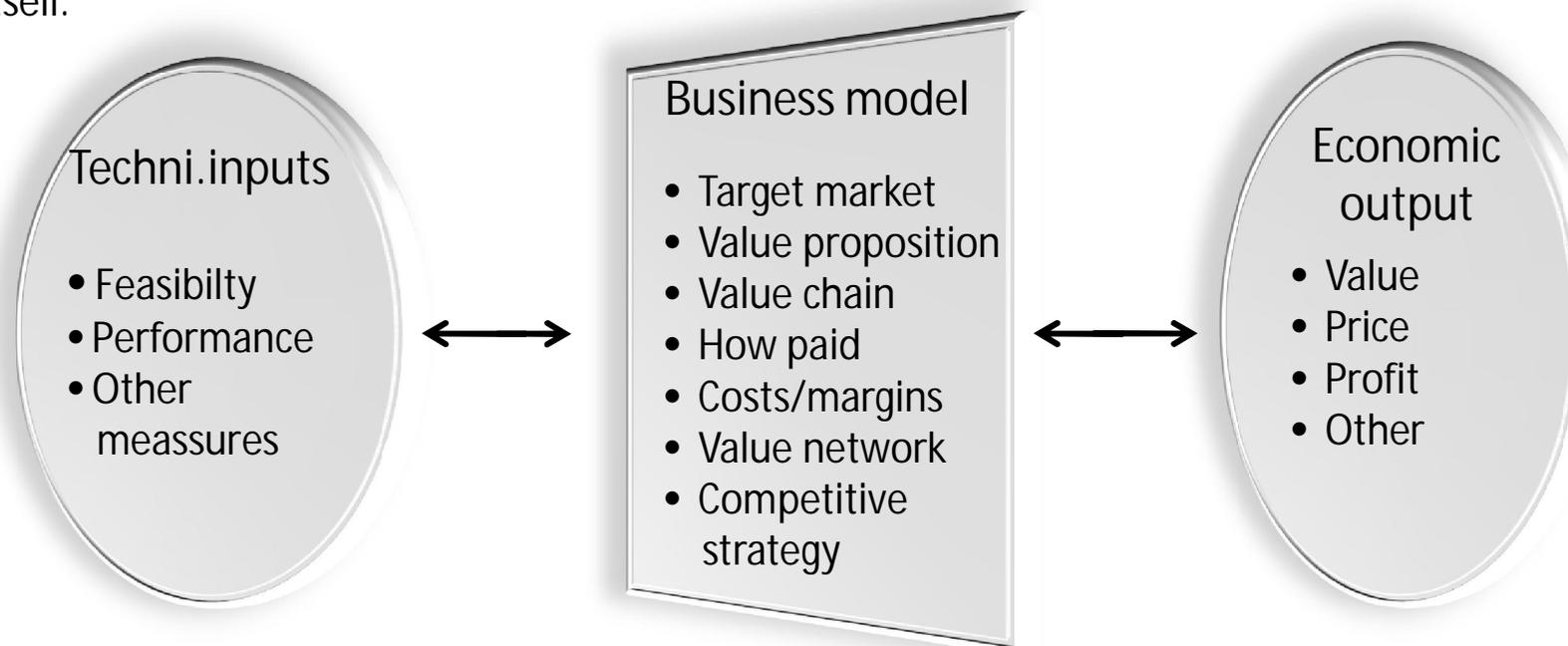
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The Business Model

Setting up a business model is extremely difficult in today's economy. What is the most challenging job in setting up a business model, is to link the physical domain of technical inputs (capacity, speed, functions etc.) to an economic domain of outputs (value to consumers, price, warranties, support, distribution channels). It's the trick to create a business model which serves as an intermediate that links the technical and economic domains. The firms realization of economic value from its technology depends on its choice of business model, rather than from inherent characteristics of the technology itself.



The business model



As we have seen, building a suitable business model depends heavily on a variety of important issues as: value proposition, cost structures, market segments, customers etc. Besides these elements, the approach of innovation (open vs. closed) also has its influence on the development of a suitable Business model. Taking this into practice, the table on the next page shows an overview of the difference in business model for the Xerox start printer/copier (closed innovation) and the IBM PC (open innovation).

The Business Model



- Identified Market Segment

- Value Proposition

- Elements of Value Chain

- Defined Cost and Profit Margins

- Positioned in Value Network

- Competitive Strategy



- Corporate and government market

- Leading edge performance; high quality documents onscreen and in print; ability to share and send documents; state-of-the-art.

- Developed entire copier system, from basic chips from manufacturing to after-sales

- Modest volumes, high unit gross profit margins

- In order to do anything, we must do everything

- Win on engineering, state-of-the-art functionality performance.



- Corporate, government, individual and small business markets

- Personal computing made affordable, from the best name in the industry; ability to run third party hard- and software; ability to buy from local retailer

- Internal design and manufacture of PC systems; external sourcing for microprocessors, operating system, third party applications

- High volumes, moderate gross profit margins

- Recruit third party dealers and hardware and software developers, outsource microprocessor and operating system.

- Win on leading market share, control of PC architecture; ability to enlist thousands of independent software developers to extend capabilities of PC.

Closed to Open innovation



In order to have a good understanding of the differences between an closed innovation vs. open innovation approach, the table below will show a clear overview of the main differences in approach.

Closed Innovation

- The smart people in the field work for us
- To profit from R&D, we must discover it, develop it, and ship it ourselves.
- If we discover it ourselves, we will get it to the market first.
- The company that gets an innovation to the market first will win.
- If we create the most and the best ideas in the industry, we will win.
- We should control our IP, so that our competitors don't profit from our ideas.

Open Innovation

- Not all the smart people in the field work for us. We need to work with smart people inside and outside the company.
- External R&D can create significant value: internal R&D is needed to claim some portion of that value.
- We don't have to originate the research to profit from it.
- Building a better business model is better than getting to the market first.
- If we make the best use of internal and external ideas, we will win.
- We should profit from others' use of our IP, and we should buy others' IP whenever it advances our business model.

Closed to Open innovation



The last decade has shown a significant change in the innovation approach used within the research and development process. It used to be an approach focused on internal knowledge creation (closed innovation), where all of the knowledge needed for research and development derives from resources within the company. The opposite of closed innovation as we have seen is the open innovation approach which relies heavily on a combination of internal knowledge creation and external knowledge creation. Both have been proven to be successful innovation strategies, but its success lies in the competitive environment companies are operating. There are several factors that have led to the erosion of closed innovation;

- Mobility and availability of educated people has increased.
- Flow of external knowledge has increased by a knowledge flow between firms
- Availability of venture capital, which makes it possible for good and promising ideas to be further developed outside the firm.
- Other companies in the supply chain, for instance suppliers, play an increasingly important role in the innovation process.
- Customers are demanding more products, lower prices, and higher quality which often can simply not be developed by a firm alone.
- Globalization of economies, why producing specific elements of products in house as it can be done cheaper/better elsewhere.

Closed to Open innovation



As a result, companies have started to look for other ways to increase the efficiency and effectiveness of their innovation processes. For instance through active search for new technologies and ideas outside of the firm, but also through cooperation with suppliers and competitors, in order to create customer value. Another important aspect is the further development or out-licensing of ideas and technologies that do not fit the strategy of the company. Consider, for example, ASML, which is a Philips spin-off.

Talking about Philips, back in the 90's Philips has changed its organization from a closed innovation company to a more open innovation company. In the next few slides it will be clear why and how Philips changed it's way of doing business.

Closed to Open innovation



Company introduction up to mid 90's

- Philips has been established in 1891, focusing on "lighting".
- Philips extended its business into different markets by establishing a Research Lab focused on technological innovations.
- Successful product launches of Philips up to the mid 90's (Compact Audio Cassette, Compact Disc, TV's, Shavers etc...)
- Philips belongs to the 3rd largest electronic manufacturer in the world.
- Today's business areas of Philips are "Lighting", "Medical Care", "Consumer Electronics".
- 80% of Philips' revenues derives from the business division "Consumer Electronics".

Closed to Open innovation



Main business issues of Philips up to mid 90's

- Philips was at the point of going almost bankrupt in late 80's beginning 90's
- The position of going almost bankrupt was due to a failure in successful product launches
- Not only a failure in successful product launches, it had also problems with implementing successful marketing strategies
- Within the end of the 80's beginning of the 90's Philips became under high pressure of competition by Asian companies
- Philips was operating in a market which started to change towards a customer-driven market instead of a supply driven market. Customers asked for a wider range of products with lower prices and improving quality.
- Philips has a strong focus on internal knowledge creation (Closed-Innovation approach).
- Even internal knowledge creation through a lack of collaboration between business divisions did not perform as it used to be. The main reason, a lack of common goals and objectives to focus on as "One Philips"

Closed to Open innovation



Impacts of the implementation of Open-Innovation for Philips:

Philips decided to re-structure it's way of doing business from an closed innovation approach towards an open innovation program with success.

- Philips started out with an reorganization whereby it created 3 business divisions instead of having 7. This under the motto of "One Philips"
- Common goals and objectives led to collaboration between business divisions to improve performance.
- Using a combination of internal and external knowledge creation (sharing knowledge with market leaders, universities and R&D institutions) created better results in their R&D organization.
- Besides cooperating with market leaders, universities and R&D institutions Philips even started out to a process of co-creation with customers which gained a better understanding of what the market is asking for in order to develop more successful products.
- Philips did change their marketing strategy as result of this co-creation process where it found out that customers are looking for products with sense and taste but on the other hand it must have features that are simple to use. Their new marketing strategy is called "Sense & Simplicity"
- New successful product/market combinations were the final result of this implementation which provides Philips a more stabilized position to built on a better future.

Business Models & Managing “IP”



Licensing technology is an important part of managing intellectual property “IP”. How companies manage IP depends critically on whether they operate in a Closed Innovation paradigm or an Open Innovation paradigm.

Closed Innovation = assumes that you must make your ideas and monetize them through your own products. A company manages IP to create and maintain control over its ideas and to exclude others from using it.

Open Innovation = assumes that there is a bountiful supply of potentially useful ideas outside the firm and that the firm should be an active buyer and seller in of IP. A company manages IP not only to leverage its own business, but also to profit from others use of the company’s ideas.

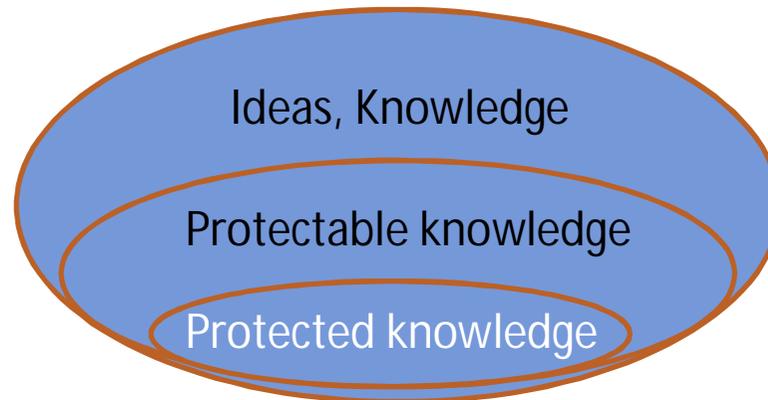
The business model also influences the management of IP. Its all about the ability or inability of companies to create and capture value from their own technology through their business model.

Business Models & Managing “IP”



IP has does not only have an enormous potential value, if companies pay proper attention to managing it. It goes beyond a proper management, in fact it assumes that technology assets have some inherent value, independents of any business model used to employ them. The technology by itself has no inherent value; the value only arises when it is commercialized through a business model.

In order to explain the relation between selecting an appropriate business model and managing IP, it is important to define what IP is and is not. Not all ideas are protectable as IP, and many ideas that might be protectable are not protected. Intellectual property refers to the subset of ideas that are (A) novel, (B) are usefull, (C) have been reduced to practice in tangible form, (D) and have been managed according to the law. As shown in the figure below, only protected knowledge is considered as an IP.



Business Models & Managing “IP”



In order to give an example of how important IP can be for companies in terms of increasing revenues, IBM has received more than 1.9 billion dollars in royalty payments in 2001. Lucent also received 400 million dollar that same year. Texas instruments received more than half its net income in such payments during the late 1980's.

Although these incredible examples, there is still space for improvement. Only 60 till 70 percent of existing patents around the world is utilized in mainstream businesses. Many companies do have hundreds of non-performing patents. It still common that most companies sell IP, instead of buying IP which is underestimated in terms of adding value. Both the buying and selling side of IP are necessary to improve from a management perspective.

Intellectual property in a closed innovation paradigm was used by management for;

- Legal ability to exclude rivals from using a companies own technology
- Vertical integration by allowing safe, efficient transfer of specialized knowledge in the firm
- Barrier to entry for competition

Business Models & Managing “IP”



Within the era of open innovation, companies were starting to see IP as a source of additional revenues. Selling technology assets could immediately boost sales and market value of a company. Patents even became important assets to the domain of corporate strategy. Business with patent portfolios began taking their IP off the shelf and using it to generate profits. Comparing the closed innovation era with today's open innovation era, the way IP is used is truly different from each other.

Business Models & Managing “IP”



What are the management issues of Intellectual Property?

Gaining enormous success of intellectual property isn't that easy as it might look like. It must be said that the top 10 percent of patents from leading universities accounted for 92 percent of the royalty payments received. What are the major issues managing intellectual property into success;

- IP is seen as a time consuming process before a patent can be used for trading. Since little percentage of IP becomes a success for most companies, it is not taken as seriously as it should be to create and capture optimal value.
- Difficult to know the value of a patent beforehand.
- Difficult to know which business model gets the most out of the intellectual property.
- Management usually rewards employees poorly which does not motivate and stimulate employees to heavily focus on new IP's.
- IP is not often managed to enhance and extend their business model and seek out new business models for discoveries that don't fit their present models.
- Management lacks in educating researchers on business models and its relation to IP, so that researchers can understand the potential connections early on in the research process. It's not the invention itself that generates success, but it's the business model that creates and captures value from patents.

Business Models & Managing “IP”



Companies that have invested significantly in R&D resources and have received a number of patents along the way understandably would like to know what the patents are worth. They sense that most patents are worth very little, so little that companies would actually save money if they donated the patents to some worthy institution. On the other hand they also hear these astonishing stories of IBM or Texas Instruments who are making billions of dollars out of their patents.

A thriving cottage industry of IP valuation consultants have arisen to respond to this demand. For a fee, they will evaluate the entire portfolio of patents that a company hold and tell the company what this combined portfolio is worth. The three main measurements of IP are;

- The ideal measure for IP is what a willing buyer would pay a willing seller in a market of many buyers and sellers, where all parties are well informed about what is being transacted.
- Another relevant measure is what it would cost a potential buyer to invent around the technology, since this is the opportunity cost of not purchasing the IP.
- A third measure would be to gauge comparable sales of IP, what similar buyers have paid for similar technologies in the recent past.

Business Models & Managing “IP”



Also in this case we see that none of these methods takes any account of the business model into which technology will be placed. The core issue for obtaining value through IP, is the business model that needs to be used to commercialize the technology. Simply if there is not a business model suitable for a certain IP, the IP is nothing worth at all.

Licensing a technology outside is essentially hiring an external business model to create value for that particular technology. Unless and until a business model can be identified for a technology that is available for sale, you are likely to receive a surprisingly small amount for that technology. For this reason, companies seeking to leverage their IP will need to work hard to identify prospective business models that could profitably employ their technology, even if the company has no plans to use that business model itself.

Making the transition



Making a step from Closed Innovation to Open Innovation takes time and effort. The most difficult part that companies encounter is the fact “where do we need to start”? It’s often advised to start with answering and thinking about the following questions;

- Where have the important ideas in your company and your industry come from in the past five years?
- What role have start-up organizations played? Have they been able to penetrate the market and gain share? Where have their ideas come from? What is their business model?
- What role do venture capitalists and other private equity investors play in your industry? Are they active investors? What explains the bets that they are making? How do these bets compare to the best your own company is making?
- What role do universities play in contributing knowledge and understanding to your company and your industry? In what areas of importance to your company are the key departments in those universities working? Who are the top professors in those areas?

This inventory of your current innovation activities will help you perform two critical tasks that will define your company’s future: First, it will advance your current business. Second, it will define and grow your new business.

Making the transition



Advancing your current business can be done through several processes which should lead to an improvement of innovation;

Filling the gaps in your current business

It's critical for companies to identify gaps (missing product/technology which leads to maintain market share), so that the company can address these gaps before it's too late. External technologies and ideas are highly useful sources of gap-filling projects which can keep the company improving current innovations.

Finding the blind spots in your current business

Where does your business model focus your innovation efforts? Where are your blind spots, areas on which you are not likely to focus to find possible future opportunities, because of the dominant logic of your business model? These blind spots are where some of the external sources of ideas, technologies, and business models can be the most helpful.

Making the transition



Review external technologies with external experts

Once you have identified possible gaps and blind spots in your future, you have the context to initiate a careful review of external technologies and ideas. Create a scientific advisory board for your company. If your company already has an SAB, bring it into the discussion of your future roadmap and business model. Use it to expose some your company's own thinking about future trends, opportunities, and other issues.

Licensing in external technology

Look for external technology you can license into your organization. Many companies have never done this. If you haven't, ask yourself why not?. There might be external knowledge of use to your company. Some companies even rely on their legal counsel to manage the licensing process. While the legal counsel has to be an integral part of this process, it is a mistake to treat licensing as solely a legal matter. There are vital business issues that licensing can influence, and you cannot delegate these issues to your legal staff. One such issue is the not-invented-here virus, which makes some internal R&D organizations allergic to any externally sourced technology. They can identify all the problems and risks to any externally sourced technology.

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Finding start-ups to fill unmet needs

Consider participating in financing the entry of start-up organizations that can fulfill opportunities that a company itself cannot fulfill internally. The general principle behind the investment in start up organizations is the fact that external technologies are used to utilize internal and external ideas to create value for your customers and to rely on internal technologies and assets to claim a portion of that value. If other companies can help your business go farther and get there faster, then this may be the best way to proceed.

Innovation is not just about finding new and better ways to grow your current business. It also represents a process for discovering a new business to expand your company beyond its current business. This process is fraught with risk; most innovations fail. But every current business eventually reaches a limit. Companies that don't innovate, die.

The external knowledge landscape is a vital resource for discovering and recognizing new business opportunities. New opportunities are where new entrants, particularly, new start-up companies can be the most revealing.

Making the transition



The internal innovation process is another potential source of the seeds that you can use to build a new business. Here you don't have to pay someone else for the initial growth, but you must use different processes to nurture young seedlings from those you use to manage your mature business.

To build up a new business out of your innovations, you will need to determine whether a particular R&D project should go to market through your own organization, or whether it should go to market outside your current organization via an alliance, a spin-off venture, or a license.

The hardest problem to decide is not which structure is best to go outside; rather, it will be the allergic reaction of the business side of your organization to going outside at all. This is the Not Sold-Here virus, the business counterpart to the Not-Invented-Here virus in R&D. If we're not selling it in our own sales channel, we won't let anyone else sell it either. Your sales and marketing people will insist that they must have exclusive use of the technology and must restrict the technology to their own channels of distribution.

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You can imagine the point of view;

- Using an external organization risks losing control over the technology
- If we lose control, competitors could steal the technology
- Outside companies will make money with out stuff

If your current business units are willing to fund the technology going forward, then give them control over its use. They fund it directly, they are likely to utilize it in the market in a timely way. They also might want to consider licensing the technology later on themselves to increase their revenues and reach parts of the market they can not serve directly, but you can leave that for them to decide. At least they are using the technology.

Letting your technology sit on the shelves is dangerous as well and you are risk of losing it altogether. If the business won't fund the technology itself, it likely will have to compete with some variant from another company within a short time in any case.

Making the transition



Companies will have to perform the hard work necessary to take promising research results and convert them into products and services that solve real customers problems. This hard work will integrate the ideas of others with the firm's own ideas and deliver the result through the companies business model. It is extremely difficult to manage multiple business models, even for the best running companies. Inevitable, the technologies will evolve to serve the needs of the dominant, successful business model of each of companies, even if another, better model might be developed for the use of the technologies.

The economies of scale that may have existed in the R&D of a generation ago are weaker now. Eventually sharing knowledge and converting internal and external knowledge, will be much more effective than keeping all your knowledge for yourself and lock it up.

Today it is not necessary to lock up vital knowledge and ideas in boxes, where they will only be used when and if a company's internal business needs dictate. A world of opportunities awaits the company that can harness ideas from its surrounding environment to advance its own business and that can leverage its own ideas outside its current business.