Introduction

Get your assets in gear: aligning IP strategy and business strategy

Much has been written about both business strategy and IP strategy. When it comes to business strategy, there are many models, formulae and approaches that provide a framework to assist in its development and implementation. In contrast, it seems that most writing about IP strategy discusses its importance, but does not discuss its development and implementation. In fact, most writing seems to treat IP strategy and business strategy as two separate concepts, when in fact they are two sides of the same coin.

Intellectual property is important...

As the world transitions to a knowledge-based economy, IP assets are increasingly recognised as key business assets. Estimates vary, but experts believe between 70 per cent and 90 per cent of the market value of publicly traded companies is attributed to intellectual property (Figure 1). Moreover, investment vehicles such as the Ocean Tomo 300 Patent Index have demonstrated that companies with comprehensive IP portfolios outperform other companies in terms of market valuation (Figure 2).

Consequently, the management of IP assets can no longer be considered a discretionary function, nor is it solely the domain of the legal department. It must be treated as a core component of business strategy. As demonstrated in Figures 1 and 2, intellectual property has a material impact on the valuation of publicly traded companies. Moreover, according to a recent study by
PricewaterhouseCoopers (PwC), over 80 per cent of executives believe the importance of intellectual capital to the value of their companies will increase over the next three to five years.

…but frequently mismanaged
One of the primary objectives of publicly traded companies is to enhance shareholder value. If intellectual property can be attributed to somewhere in excess of 75 per cent of the value of publicly traded companies, one would expect the alignment of IP strategy with a company’s business strategy to be a top priority for senior management. However, intellectual property remains a poorly managed asset. According to the same report by PwC:

• almost 70 per cent of executives believe IP management is too often treated as a legal, not a strategic, issue;
• over 60 per cent of executives believe current accounting practices undervalue intellectual property; and
• over 60 per cent of executives believe that their companies could extract significantly more value from existing intellectual property and IP formation if they devoted more assets and attention to relevant processes.

Why is there an IP dichotomy?
If intellectual property is so important, why is it so frequently mismanaged? Over 70 per cent of executives believe a focus on short-term results inhibits the development of sophisticated processes for managing intellectual property. The majority of executives surveyed also believe that IP management is too often treated as a purely legal issue at the expense of the larger business strategy. Since companies already have docketing systems in place to handle the classic legal issues, the longer-term, more strategic issues are put off. The focus on short-term results causes IP management, and related corporate performance, to remain somewhat behind. In an increasingly competitive world fuelled by rapid innovation, corporate consciousness of this dynamic is putting intellectual property closer to the centre of the table.

Insufficient approaches
Intellectual property has business implications at many points across the enterprise, with each of these having a role to play in its management — from targeted innovation in research and development to licensing opportunities in business development to cost accounting and royalty tracking by business units. Traditional legal systems and departmental processes do not address these issues sufficiently.

Docketing
Docketing systems are good at helping companies to ensure that they take appropriate actions by required dates. They do not determine whether these actions are optimal for business. For example, a company with hundreds of patents could be wasting thousands of dollars annually by maintaining patents that it does not use in its core business – but the docketing system does not care.

Spreadsheets
Spreadsheets are often used to try to make up for shortcomings in the functionality of docketing systems. Companies use them to try to track additional information about intellectual property. However, spreadsheets are error prone, difficult to share and, when used in conjunction with docketing systems, they can create a need for duplicate data entry. Duplicate data entry increases the opportunity for errors. A study quoted in CIO Magazine found that on average, four out of five spreadsheets contained errors. The article went on to describe a number of material spreadsheet blunders that cost the respective companies tens of millions of dollars.

Shared directories
Shared directories on network servers are sometimes used in an attempt to overcome the inability of spreadsheets to be shared easily. Unfortunately, information kept in a shared directory requires a lot of maintenance in order to ensure that the data is current, and version control becomes a new problem. Although shared directories may be a convenient place to dump bits of information, they are severely limited when it comes to handling key relationships between IP assets and business.

Standalone databases
Some companies have tried database programs in an attempt to improve on the limitations of spreadsheets and shared directories. However, these databases are not geared towards sharing data with a distributed workforce. They require extensive IT resources and custom programming, and are expensive to modify as the business changes and grows.

None of the approaches or any combination of the tools described here suffices for the meaningful implementation of strategic IP management. Still, companies try to make them work; many different spreadsheets, databases and directories are deployed in
different areas of the company in an attempt to address needs at departmental level. This creates a nightmare scenario of disparate data silos, each with its own risks of data inaccuracies and none with the complete business-oriented picture of the company’s IP assets.

**A new IP management paradigm**
To deal with these shortcomings, industry consultants agree that companies must have IP management systems that:

- sustain a repeatable process that spans multiple departments;
- can survive employee turnover;
- manage key variables for multiple types of intellectual property;
- moves beyond prosecution/maintenance tools to address business-level needs;
- continually track and share information within the company regarding known and emerging competitive technologies and organisations; and
- track and manage IP-related opportunities and agreements.

But how would a company implement such a system? What functional disciplines should be included? How does an approach such as this help to align a company’s IP strategy with its business strategy? The concept of an IP value chain is a good framework for answers.

**IP value chain: a cradle-to-grave approach to IP management**
The IP value chain model combines experience and discussions with corporate IP experts, chief IP counsels, IT directors and compliance officers at large enterprises with vast IP holdings. The IP value chain is a logical framework that follows the evolution and development of intellectual property from inventions and external acquisitions through portfolio management and commercialisation. It is a lifecycle model that follows intellectual assets from cradle to grave.

**Stage 1: innovation – capturing, managing and protecting critical inventions**
It is well understood that innovation is a major driving force in economic growth and development. The growth of the more well-known innovative companies such as Google or Apple demonstrates the value of capitalising on innovation. Due to factors such as globalisation, increased competition, the growing impact of information and communications technology and the high pace of scientific and technological change, firms must not only innovate more rapidly, but must also capture, protect and manage those innovations more effectively.

**Important but mismanaged as well**
According to a survey by the Boston Consulting Group, innovation is a key strategic focus for many companies, with 72 per cent of executives ranking it as a top-three priority. However, nearly half of those surveyed remain unsatisfied with the returns on their companies’ investments in innovation.

To the extent that innovation is important, intellectual property must be equally if not more important as it is the vehicle through which companies protect their innovations for strategic and economic gain. Innovations, inventions and ideas are captured and protected through patents, trade secrets, trademarks or even publications. A well-aligned IP strategy becomes similarly critical to the ability to innovate and capture these ideas in the first place.

In support of an IP management strategy, an enterprise innovation management system should:

- work seamlessly with the business-centric innovation efforts of the company, thereby linking future business requirements with the ability to create valuable intellectual property;
- create market-driven innovation by identifying and internally communicating the needs of the target customers. This should translate into product plans, development plans, research and development plans and the overall IP strategy;

![Figure 3: IP value chain](image)
* enable the workforce, making it easy to receive new ideas from the employee base in order to grow the list of promising innovations entering the value chain;
* allocate resources – innovations should be rated, ranked and prioritised according to the stated business strategy of the company. Budgets should be allocated for the most promising innovations, either for direct production or for licensing;
* be complete – non-patented innovations and pending patent applications should still be managed as trade secrets. Additional or alternative forms of protection should be considered (eg, copyrights for source code, collateral and other forms of expression, and trademarks as source identifiers or brand builders). The ever-changing relationships, interdependencies and time-sensitivity among these assets and related products, know-how, marketing and commercialisation activities should be tracked in real time;
* include experts in order to maintain visibility and allow rapid input among need-to-know experts across departments and outside the organisation for ranking, rating and otherwise pushing innovation along the value chain; and
* measure progress, setting innovation targets for the technology areas that are of greatest importance and measuring progress against these goals.

**Stage 2: portfolio management – tracking and analysing IP assets**

Innovations, disclosures, patents, trade secrets and other assets are added to the IP portfolio from different sources over time. As this collection grows, portfolio management becomes an important function in the IP strategy of the company.

As IP portfolios grow they become more valuable, but also more complex to manage and more expensive to maintain. Companies can spend millions of dollars maintaining patents that they do not use. Alternatively, they can underestimate the defensive value of patents and fail to protect their market. The net effect of mismanagement could be lost market share, lower margins, revenue shortfalls and a heightened risk profile.

Intellectual property is important. In many industries it is the vehicle that protects competitive advantage. It must be managed with the same discipline that companies apply to areas such as sales, marketing, finance and product management. However, it cannot be managed without being measured – so companies need a way to measure various aspects of their IP portfolios.

Dow Chemical is a frequently cited example of a company which derived great benefits from measuring and managing its IP portfolio. In the early 1990s the company owned approximately 29,000 patents, many of which had little real value to the company. Dow performed a major audit and business-use classification of the portfolio. Through this exercise, it gained an understanding of the value of patents in the context of each business. Non-core patents were made available for licensing or were abandoned. This new strategy resulted in the abandonment of many low-value patents, which in turn led to savings of $40 million in maintenance fees alone.

**Portfolio management for everyone else**

How can other businesses improve their IP portfolio management? What can be learned from examples such as Dow? The following guidelines provide a starting point:

* business strategy – understand the markets, customers and technology areas that are important to the future needs of the business;
* inventory of assets – understand what is owned within the existing portfolio;
* categorise assets by stage of lifecycle, product line, business unit, technology area and remaining useful life;
* gap analysis – assess whether the portfolio profile supports the business strategy of the company – that is, whether it has enough intellectual property in key technology areas;
* develop a plan to close the gaps – for example, licensing, innovation or acquisition;
* competitive analysis – understand the IP profiles of competitors and key trends in order to determine their strategy; and
* IP landscape – scan the IP landscape to identify broader trends and pockets of intellectual property for acquisition.

**Actionable intelligence**

With this level of intelligence about its portfolio, a company can positively affect its business strategy by directing activities in other parts of the value chain. For example, at the innovation stage it can set and measure IP production targets based on its market direction. In the commercialisation stage it can take the assets that have been identified as non-core assets (those not mapped to key areas of the business) for potential licensing.

**Stage 3: commercialisation – boosting revenues and monitoring agreements**

As with the other parts of the IP value chain, there is a significant opportunity to improve business management at the commercialisation stage. Statistically speaking,
patents that are valuable in the context of out-licensing for royalty revenues are exceedingly rare. Only 3 per cent of patents ever become royalty-generating assets and, according to some reports, the majority of licensing agreements associated with this 3 per cent are mismanaged to the extent that almost half of the licensing royalties are under-collected by 25 per cent or more.

The commercialisation stage should include the necessary tools and procedures required to operate a licensing programme, including areas such as non-disclosure agreements, licensing agreements and royalty tracking. A good IP management system should:

- facilitate business development with automated workflows for non-disclosure agreements and other contract requests, drafting, approval and printing;
- support the negotiation and creation of licensing agreements with standard templates, clause libraries, standard terms, custom terms and version controls; and
- enable management oversight.

In addition to facilitating the day-to-day operations of an out-licensing business, an IP management system should allow a company to measure and manage its licensing business with such features as:

- the ability to report on different business agreements such as non-disclosures and joint ventures;
- monitoring the relationships between licensing agreements, intellectual property, products, services and other categorisation schemes and terms management; and
- managing payment terms and reminders, and monitoring royalty payments.

**Conclusion**
Implementing an effective IP management strategy involves adapting to business objectives and technology shifts while increasing IP awareness throughout the organisation. To accomplish this, companies should align intellectual property with business objectives using the IP value chain as a framework. Table 1 summarises requirements for closely aligning IP management activities with business goals in the context of the IP value chain.

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<th>Table 1: Aligning intellectual property and business management along the IP value chain</th>
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<td><strong>Stage of the IP value chain</strong></td>
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| Innovation | • Provide easy access to invention disclosure forms (web-based).  
  • Automate workflow for rating, approval and prioritisation.  
  • Categorise inventions to relevant portfolio segments.  
  • Track competitive portfolios.  
  • Create a centralised repository of invention information and prior art.  
  • Track and relate potential acquisition portfolios. |
| Portfolio management | • Integrate data from disparate data sources to enable a holistic view of the portfolio.  
  • Categorise assets based on business management vectors such as products, departments, technology areas and outside counsel firms.  
  • Monitor characteristics and trends of the portfolio that are pertinent to the company’s business objectives.  
  • Control costs. |
| Commercialisation | • Map intellectual property to licensing agreements.  
  • Manage workflow to automate and distribute tasks.  
  • Monitor incoming and outgoing obligations associated with the portfolio. |
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