

**Short Note on Intangible Assets, Intellectual Capital,
& the Mission & Focus of the Tusher Center**

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I. Introduction

Since the turn of the millennium, “fundamental changes” in the global economy have been changing the basis of competitive advantage¹. These changes strip away traditional sources of competitive differentiation and expose a new foundation for wealth creation: the development, astute deployment, and utilization of intellectual capital, intangible assets, of which knowledge, capabilities, relationships, corporate culture, and intellectual property are the most significant.

Relatedly, development of markets for knowhow and intellectual property has broken the traditional nexus between tangible assets (objects) and intangible assets (ideas). Previously, the principal business model firms employed for extracting value from inventive and creative activities was to both create and commercialize new ideas and technology. Firms historically have bundled ideas, inventions, and the results of creative activities into objects (tangible property) and offered them for sale. If a person or an organization had an invention, they would embed it in a tangible good (an “object”) and capture value from the idea by selling the tangible good. In the case of music, for example, a creative entity might sell records or CDs.

¹ D.J. Teece, *Capturing value from knowledge assets*, 40 CALIFORNIA MANAGEMENT REV. 3, 55–76 (1998).

For quite some time, as IP regimes have strengthened, it has been possible to specialize in what one did well (e.g., ideas or objects, not necessarily both). In the case of an “idea” generator, the creator(s) and inventors can simply license to others better equipped to embody or implement the idea. We need to alter our belief system to better understand these changes. As former U.S. Federal Reserve Chairman Alan Greenspan remarked in 2004: “we must begin the important work of developing a framework capable of analyzing the growth of an economy increasingly dominated by conceptual products.” Research has estimated that as much as three quarters of the market value of most R&D-intensive companies is accounted for by their intangible “capital”. A proper understanding of the central importance and diverse nature(s) of intangible assets and intellectual property is vital for managers, policymakers, and researchers.

Intangible assets need to be “built”—a slow process, but one which results in an asset that is hard for others to imitate. Unlike most physical assets, many intangibles can be applied in new contexts, such as a different country, without incurring all over again the costs of creating the asset. On the other hand, they can be difficult, or counter-productive, to license, requiring active management of their transfer and use.

There are many types of intangible assets including brands, business models, copyrights, customer and business relationships, organizational culture, patents, reputation, trade secrets, and trademarks. The Tusher Center seeks to illuminate both the managerial challenges and the public policy challenges associated with intangible assets and intellectual capital more generally. In this note, I briefly discuss three of these: brand, know-how, and culture.

II. Brand

A well-established brand with a positive image will reduce marketing costs and help sustain premium pricing. The value of a strong brand is demonstrated by pharmaceuticals. Even though generic versions of a drug, such as the pain reliever ibuprofen, typically sell for a significant discount, the branded version often retains significant market share.

A brand can, in fact, be the sole asset that a company contributes to a product it sells. A multi-product company can profitably place its brand on a product designed and produced by others because of the premium it's able to build into the price. In other cases, brand owners like Apple, also control product design and engineering, leaving production (with close oversight) to suppliers.

III. Know-How

Know-how includes trade secrets and other undocumented knowledge that results from purposeful value creation activities, including scanning, R&D, and practice. Know-how includes knowledge held by individuals as well as knowledge (e.g., routines) embedded across a workgroup as a whole. Thus, Dell's initial direct sales and build-to-order business model was embodied in manufacturing, distribution, and IT systems that competitors found hard to imitate for many years.

Although “know-how” is typically associated with design and manufacturing, the term can also apply to other business processes, such as finance, or post-merger integration. Mastery of any operational field(s) can contribute to a firm’s competitive advantage.

IV. Culture

An organization’s culture, the values and assumptions that underlie its activities, has a deep influence on who the firm employs, how it does business, and how innovative it can be. Culture is set through words, actions, and symbols. It must be supported by organizational structure (e.g., the flatness of the hierarchy) and incentives (e.g., how failure is handled).

Culture has multiple dimensions. A culture can be more or less resistant to change, more or less open to outside ideas, and more or less conducive to internal knowledge sharing. A rigidly bureaucratic culture, for example, is likely to suppress spontaneous employee collaboration and render the company less attractive to creative workers.

Since culture is everywhere in a firm, it can be difficult to change. At any given time, top management can guide a company’s culture down more (or less) entrepreneurial (risk-taking, innovative) avenues. A culture that fits with a company’s other strengths can provide a solid basis for competitive advantage.

V. Intellectual Capital, Management, & Policy Issues

In today's global economy, intangibles including proprietary technology, software, product design and branding produce more value than manufacturing. The proportion of product cost or value in manufacturing varies substantially among different product categories. Hollywood studios and the motion picture business have long relied on creative talent and associated intellectual property to have a viable business model. Successful technology innovators focus on specific parts of the value chain while partnering with specialized suppliers. ICT and life sciences industries are not vertically integrated. Apple has succeeded with its iPod through internal hardware and software development while subcontracting manufacturing. SAP business software sold under license by many integrators runs on a variety of vendors' computer hardware. Companies like Apple have lowered capital expenditures and headcounts by eliminating in-house manufacturing. Amgen and many other biotechnology companies license their patented technologies to pharmaceutical companies who have the capability to run clinical trials and bring drugs to market. IKEA has furniture designers and a global retail network that subcontracts to manufacturers.

As companies become less vertically integrated, there is increased understanding of where value is generated and captured across the product or service value chain. Managers and policy makers are coming to understand that building, protecting, and using intellectual capital/ intangible assets is core to business success as well as long term economic growth.

However, R&D is costly and can dwarf associated manufacturing costs. Just as the cost of paper and ink has little bearing on the price of a textbook, the cost of a prescription drug is much more

than the cost of the ingredients. The costs of producing a movie or computer program are also much more than the manufacture of the DVD or CD or thumb drive on which they reside. Similarly, hardware technology products including computers and mobile phones are based on upfront research and development, including embedded software costs. These development costs also create significant intangible value and need to be recouped with sufficient returns to encourage further investment.

Google and QUALCOMM are examples of particularly significant and successful business model innovators that have come to the fore this decade. Google owes its success in part to development and implementation of novel information processing algorithms coupled with inexpensive and powerful computing, yet its most valuable innovation is its unique business model. Qualcomm has provided powerful communication technologies that have had dramatic impact on mobile telephony.

A system of properly designed and adequately enforced intellectual property rights is critical to the continued investment in intangibles. Soon, robots will make robots, more products will be “printed” (not manufactured), and robots will perform services. New technologies such as artificial intelligence, machine learning, and automation are becoming increasingly important. Accordingly, the work of creative and inventive people is going to be even more salient to the global economy in the future. It is incredibly important for global society that intellectual property rights receive protection. Otherwise, the inventive and creative activities—the lifeblood of economies—will decline or at a minimum be put at risk.

VI. Conclusion

Firms traditionally have taken ideas, embedded them in to objects, and then moved them from the laboratory to the market in bundled form. This is now changing. Inventions and products are being unbundled, which in many ways is a positive development.

We are at a critical junction in the evolution of our society and the economy. If we continue to protect and reward just the production of tangible goods (objects) while shortchanging intangibles (ideas, know-how, relationships, etc) we will be out of step with technological progress and the march of civilization. Economies will eventually stutter if the creation of intangibles is shortchanged through poorly designed intellectual property rules. Creative and inventive people may have to revert to making a living by producing tangible assets (objects) within large vertically integrated firms. This would put the skilled and creative people in competition with robots and low wage workers. It would also lead to a reversion towards more vertical integration. Large-scale vertically integrated firms that pay low wages and have lackluster growth and only modest levels of innovation would populate the landscape. If a failure to enforce intellectual property relegates us to low-wage activities, taking place in vertically integrated enterprises, the development of highly innovative small- and medium-sized enterprises will be stunted because they will not have the resources, capabilities, or passion to complete.