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Is a Culture of Innovation Meaningless to Management?

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A culture of innovation is an attribute in business, which can be measured both qualitatively and quantitatively. The measurement of innovation empirically correlates with other measures of the corporate brand, such as overall reputation, perception of management, and investment potential. It seems logical then that the process of innovation may be a more strategic tool that is akin to corporate branding, rather than being a tactical component of product development.

It seems obvious that a culture of innovation would be good for a company's performance. Unfortunately, accounting standards don't allow for intangible assets, such as innovation, to appear on the balance sheet. Why then should a Culture of Innovation be measured, valued and managed, if the financial results are meaningless to executive management?

Whether developing innovative products or strategically building a culture of innovation in a company both require a commitment of a corporation's management to provide resources, which means innovation should be financially accountable. Accountability requires measuring the return on innovation investment despite it being an internally grown intangible asset, which according to accounting standards cannot appear on the balance sheet.

This paper is one of a series that will examine the culture of innovation as it relates to marketing and branding measures in a quantitative research survey known as the CoreBrand Index® (CBI). The purpose of this paper is to examine what came before the CBI. It will be a prequel to the primary work, which will evaluate the feasibility of measuring innovation as an indicator of business health and financial vitality, which may ultimately become a predictor of future revenue and cash flow. Ultimately, we would like to see internally grown intangible assets on the balance sheet, but at the very least we would like to see that they have some financial accountability.

We hope to better understand what drives intangible assets like innovation, and how can it be measured, valued, and managed. To that end, we begin by examining areas we have not explored previously even after 25 years of measuring corporate brands.

Keywords: Innovation, innovative, innovation management, innovation processes, business culture, innovative culture, disruptive innovation, intangible assets, brand measurement, brand equity, customer experience

Innovation can mean many things from many different perspectives. How do you define it? Innovation is a massive concept, as vast as "quality" and as mercurial as "reputation." Business leaders understand and desire to manage innovative companies, but how is it managed for value? Is innovation distinctive enough to stand alone as a measurable attribute? Or, is it just a subcomponent of business strategy? Can a company develop an innovation culture, or is it judged based on its record of innovation?

The concept of *innovation* is massive, so defining it is an essential first step in building a body of knowledge around the idea. In 2008, Richard Lyons, Chief Learning Officer at Goldman Sachs, and today Dean of Haas B School defined it as *Fresh thinking that creates value.*

If innovation creates value should that value creation mechanism (fresh thinking) be measured, valued and managed? If so, then identifying the appropriate department where innovation resides in the corporate hierarchy is a critical step. Is innovation properly aligned with Research and Development (R&D)? Is it part of product development or marketing, or is it more about creating demand for innovation among customers?

Empirical research on corporate brands indicates that a branded company (every company no matter the size has a brand – it is simply a matter of measuring it to understand its size and strength) that is growth oriented requires the alignment of strategic intent with the business processes, culture, and communications of a business in order to maximize value. The value created by a company aligning these management tools, however, is part of the vast business ecosystem called intangible assets. Unfortunately, according to GAAP (Generally Accepted Accounting Principles) internally grown intangible assets are not on the balance sheet of corporations. So, if a *culture of innovation* is *fresh thinking that creates value,* but that value is not allowed to be accounted for in financial statements, why would a Culture of Innovation be measured, valued, and managed?

What the Literature Tells Us

Four tables summarize key ideas on innovation found in a variety of sources. Table 1 considers innovation in business; Table 2 looks at the influence of culture on innovation; Table 3 specifically considers innovation as it refers to the organizational brand; Table 4 examines literature regarding the measurement of value creation and the inadequacy of current GAAP accounting standards.

Table 1: Innovation in Business

Source	Relevance
Dance (2008)	**30+ definitions lead to one fresh summary: "Fresh Thinking that Creates Value."**
Kanter (2000)	**Identifies the conditions that lend themselves to an innovative business environment. The paper explores the many micro activities that are part of the inventive process vs. the demands of users of innovation. The paper explains that the organization structural connections between the innovators and users are integral to the success of the innovation process.**
Drucker (2014)	**This highly cited book was first published in 1985. Specific to this literature review Drucker's book identifies the historical beginning of innovation in business and how it is still the wellspring of entrepreneurship in today's business world**
Whittinghill, Berkowitz & Farrington (2015, p. 216)	**Examines how innovation is encouraged and implemented in the US Armed Forces. If organizational culture does not encourage innovation, it outlines specific ideas for managing and promoting innovation within your organization**
Polley, Raghu, & Sankaran (1999)	**The innovation process isn't easy; it isn't linear and is frankly just plain hard work. This book examines the results of a major study of innovation in organizations, calling into question most of the explanations of the innovation process**
Kaplan (2014)	**Suggests several potential measurement tools to evaluate the effectiveness of innovation within an organization. It indicates the goals for measurement among leadership, employees, and customers**
Davis & Rosenzweig (2015)	**"Pervasive innovation" is driving new experiences, channels, value propositions, content, and communications, which are all part of the process to build what the author calls the relentlessly relevant brand**
Hage (1999)	**Businesses recognize the importance of innovation for survival -- Companies around the world spend 4-15% on innovations (depending on the industry)**

Table 2: National Influence on the Culture of Innovation

Source	Relevance
Nelson (1993)	**An examination of how fifteen countries define and promote innovation provides insights and historical context for how innovation becomes a component of national pride**
Unger, Rank & Gemunden (2014)	**Examines how a national culture can influence the culture of innovation in business. It goes into some detail about how the national perspective of innovation should fit into the corporate culture. It identifies the recommended norms of corporate culture especially relating to innovation**
Nonaka & Takeuchi (1995)	**Examines the Japanese business model of continuous innovation that has been so successful in building the automotive and electronics industries. It also identifies how they built sustainability and renewability into their success model**
Capozzi, Gregg & Howe (2010).	**Results of McKinsey's Global Survey, which quantifies innovation. The results also identify how companies create ideas and the barriers to innovation. It examines individual and organizational factors that either help or are roadblocks to innovation**
Engel (2015)	**Silicon Valley is at the confluence of numerous private and public sources of funding for incubating creative technological ideas for capital exploitation. This is an example of government staying out of the path of capitalism.**

The literature reviewed supports the notion that there is a need to better understand how innovation fits into the culture and business processes of the corporation. Innovation is part of the intangible assets of a company that doesn't show on the balance sheet but is invaluable to its growth and profitability. Ultimately the research that will result from this beginning will lead to better understanding the role of innovation within a corporation and how a company can benefit from and manage toward achieving a culture of innovation.

Innovation

I discouraged the use of the word *innovation* by the copywriters in my advertising agency because I considered it a wasteful word that was too easily used to describe any small improvement in a product or service. My attitude, however, alters dramatically when

Table 3: Measuring Innovation in Business

Source	Relevance
Trajtenberg (1990)	**Patent citations are often utilized as an indicator of the value of innovations thereby overcoming the limitations of financial accounting reporting of intangible assets. The author has labeled this evaluation as "knowledge stock" and has been able to connect it to boosting market cap.**
Sidhu (2016).	**Innovation is recognized as an economic driver, but it is not quantitative. The Berkley Innovation Index (BII) is a new attempt to measure innovation in a holistic sense. At the time of this writing, BII is in a development mode but it will be evolving and should be reexamined periodically for its usefulness as an innovation index.**

Table 4: Valuing Intangible Assets

Source	Relevance
Corrado, Hulten & Sichel (2006)	**The first of several white papers by this trio of subject matter experts writing for the Federal Reserve Board. The idea was to identify the significant growth and value of intangible assets as a new dynamic in the economy**
Edeling& Fischer (2017)	**A key finding is that intangible assets such as brands or customer relationships on firm value are substantially larger than the effect of advertising expenditures. In other words, it isn't about advertising to watch your valuation go up, but rather advertising is a component of a larger ecosystem of intangibles that together make the enterprise worth more over time.**
Malik, Ali, & Khalid, (2014).	**This article examines the question if intangible assets are managed will they create a positive or negative influence (value) over business results.**

discussing the notion of a *culture of innovation.* Examining this bigger concept changes the concept from incremental improvements *(innovation)* to a strategic method of conducting business *(culture of innovation)*.

It is essential then to better understand the context of innovation in today's business world and to evaluate the importance of the roots of the *culture of innovation* attribute and its contribution to business performance.

The Definition of *Innovation*

There are many and varied definitions of the word *innovation.* Although the word conjures up a vision of scientists in white lab coats holding clipboards, the most successful innovations that drive business are small and incremental rather than large scale endeavors.

The best definition of the word *innovation* is *Fresh Thinking that Creates Value*, which is credited to Richard Lyons, who was Chief Learning Officer at Goldman Sachs and is currently the Dean of the Haas Business School. (Dance 2008)

How is it possible to connect a culture of innovation with business results? Peter Drucker has tied it together in his book, *Innovation and Entrepreneurship* (Drucker 2014)

> The overwhelming majority of successful innovations exploit change. To be sure, there are innovations that in themselves constitute a major change; some of the major technical innovations, such as the Wright Brothers' aeroplane, are examples. But these are exceptions, and fairly uncommon ones. Most successful innovations are far more a systematic examination of the areas of change that typically offer entrepreneurial opportunities. (p. 52).

The best definition of the word innovation is 'Fresh Thinking that Creates Value'

Drucker completed the value-driven equation when he said:

> Management must look at every unexpected success with the questions: (1) What would it mean to us if we exploited it? (2) Where could it lead us? (3) What would we have to do to convert it into an opportunity? And (4) How do we go about it? This means, first, that managements need to set aside time to think through how it could be exploited. (p. 62).

A Historical Business Context of Innovation

Putting innovation and culture together in a business context can best be shown by the following example.

> The power of a clear focus is demonstrated by Edison's success. Edison was not the only one who identified the inventions that had to be made to produce a light bulb. An English physicist, Joseph Swan, did so too. Swan developed his light bulb at exactly the same time as Edison. Technically, Swan's bulb was superior to the point where Edison bought up the Swan patents and used them in his own light bulb factories. But Edison not only thought through the technical requirements, he thought through his focus. Before he even began the technical work on the glass envelope, the vacuum, the closure, and the glowing fiber, he had already decided on a 'system': his light bulb was designed to fit an electric power company for which he had lined up the financing, the rights to string wires to get the power to his light bulb customers, and the distribution system. Swan, the scientist, invented a product; Edison produced an industry. So Edison could sell and install electric power while Swan was still trying to figure out who might be interested in his technical achievement. (Drucker 2014) (p. 137).

Consequently, Edison's most significant innovation was not his inventing the light bulb but his creating the infrastructure for illuminating a city. If innovation was being measured based on limiting the scope to just the light bulb, then it could be argued that Swan won the innovation contest. If innovation is examined on a larger scale that includes a commercially viable component and the potential to generate a return on the innovation of a light bulb, then Edison wins hands down.

That is the difference between product innovation and creating a culture of innovation in a company. Both are important and contribute to financial performance, but one is tactical, and the other is strategic in scope. Product innovation is incremental improvements to a specific brand, and a culture of innovation is more closely related to the corporate brand and the value of all intangible assets.

The National Influence on Innovation in Business

Following World War II, there were significant and dynamic changes taking place regarding national cultures and their influence on business (Nelson 1993).

> Until the 1970s there was no strong competitor to the American system as a broad model of how an innovation system should be designed. This standing as a model system was a natural reflection of the U.S. technological preeminence that marked the postwar years.

> As European productivity and income levels have caught up with American levels, and Japan has emerged as a leading economic and technological power, the attraction of the American model has waned, and Japanese institutions have waxed as targets for emulation.
>
> The rise of Japan as a model has enhanced the belief that an explicit national technology policy can be effective; indeed it is now widely argued that a nation will fall progressively behind if it does not have an explicit technology policy. (p.23).

Reaching the apex of innovative growth and power in the mid-1990s, leadership in Japanese universities and businesses began disclosing the secret of their successes.

> Coping with uncertainty was a matter of life or death even for the more successful Japanese companies [after WWII]. Honda, for example, might not be in the automobile industry today had it not developed an energy efficient engine prior to the oil shocks. In the camera industry, Canon bet the future of the company on the AE-1, the first single-lens reflex camera with a built-in electronic brain. Similarly, Sony could have gone into oblivion had it not pursued an aggressive export strategy during the days when 'Made in Japan' was still synonymous with 'cheap and shoddy.'
>
> As latecomers into international competition, none of the Japanese companies ever achieved the dominance and success once enjoyed by such companies as IBM, General Motors, or Sears Roebuck. Competition was a constant uphill battle for Japanese companies. In retrospect, that was fortunate, since they did not acquire the usual encumbrances of success—including complacency and arrogance—that have come to plague the three monarchs mentioned above. No single Japanese company ever dominated a business the way IBM once ruled the computer business or the way General Motors and Sears once dominated the automobile and retailing industries, respectively. As rulers of their own fiefdoms, these companies sat comfortably on their laurels, becoming increasingly numb and blind to changes taking place around them. Certainty, not uncertainty, became the norm. (Nonaka 1995). (p.4).

Japan is certainly not the only national culture of innovation; China is emerging as an innovative powerhouse. What Japan does offer is a case study to see a complete cycle of innovation from the 'cheap and shoddy' perception of their products to become the envy of the world in a relatively short amount of time. Paramount to that drive to be the best is also the desire to remain the best, and here the Japanese institutionalized a way to maintain their lead in business innovation.

> Innovation was not a one-act drama for successful Japanese companies. One innovation led to another, bringing about continuous improvement and upgrading…
>
> Continuous innovation of this sort has also been characteristic of successful Japanese companies in other businesses, including motorcycles, consumer electronics, sewing machines, and air-conditioning equipment.
>
> We have argued this far that living in a world of uncertainty worked in favor of Japanese companies, since they were constantly forced to make their existing advantages obsolete. In fact, this trait—the willingness to abandon what has long been successful—is found in all successful companies, not only those in Japan. To these companies, change is an everyday event and a positive force. (Nonaka 1995) (p.5)

Can a culture of innovation in business be measured? If so, does innovation drive business and financial performance?

Quite the opposite of the Japanese national culture of innovation is the clustering model of Silicon Valley. Silicon Valley is more akin to the government working in partnership with entrepreneurs and capital markets to exploit and grow clusters of business innovation – in this case clusters of technological innovation. The ability to reproduce the Silicon Valley success model in other areas of the world has been studied closely. Finding the right formula for replicating the Silicon Valley model has been uneven at best. Understanding the success drivers and outcomes of innovation, however, may prove to be helpful in replicating the model successfully in the future. (Engel 2015).

A Culture of Innovation

How does a culture of innovation drive business results? The question needs to be deconstructed. Is innovation part of the culture or the business process? Can a culture of innovation in business be measured? If so, does innovation drive business and financial performance? How might innovation be valued and managed?

Corporate culture is a group of expected assumptions around business processes and behaviors that are established and taught to new members of the culture. "*Innovation culture* is defined as a "style of *corporate* behavior that is comfortable with, even ag-

gressive about, new ideas, risk and failure" (O'Reilly, 1997, p. 60). Hence, *innovation culture* can be taken as a subset of *corporate culture*." (Unger 2014)

The U.S. Armed Forces may sometimes be thought of as the ultimate of hierarchical organizations. To maintain their nimbleness, they look to innovation to be more agile and adaptive for evaluating and combating future enemies.

If the culture does not encourage innovation, the most effective and practical actions to be taken to change the organizational culture and subsequently improve innovativeness, in priority order, are:

1. Communicate and demonstrate the importance of creative, innovative thinking.
2. Give members time to think innovatively.
3. Allow and encourage members to collaborate.
4. Allow members the flexibility to approach problems as they see fit, free from groupthink.
5. Assign motivating work and trust members to perform without being micromanaged.

By implementing these actions, the culture within an organization can be modified to improve its innovativeness, to advance its ability to overcome future and emerging threats, and to meet new and complex challenges. (Whittinghill 2015, p. 234).

According to McKinsey, more than 70% of corporate leaders tout innovation as a top three business priority, but only 22% set innovation performance metrics.

Measuring Innovation

Some will say that measuring intangible assets and linking them to financial metrics are impossible to achieve, so why bother? In an online article entitled, "How to measure innovation (to get real results)," Kaplan captured the essence of the problem.

> There's an elephant in the room when it comes to 'innovation.' And it's an ironic elephant given that we're all so hooked on data analytics, a/b testing, and getting metrics for anything and everything. Yet we all throw around terms like creativity, breakthroughs, and disruptive innovation. Companies eat up this stuff—they're fully on board. Innovation is going to shape the future. Sure—if we track and shape *it*. Some might argue that innovation is impossible to quantify. They're wrong. (Kaplan 2014)

Kaplan goes on to say, "According to McKinsey, more than 70% of corporate leaders tout innovation as a top three business priority, but only 22% set innovation performance metrics. The gap is problematic. Why aren't more companies measuring innovation? Innovation is nebulous. Definitions differ. Expectations vary."

Kaplan further explains what we should be looking for in measuring and managing innovation to get real results: "The most innovative organizations carefully consider what goes *into* the innovation process, but also consider what should come *out* of it. They focus on different types of measurements, and include both the quant side of the business (hard numbers) and the qualitative side (say, leadership behavior)."

Measuring innovation shouldn't be difficult. Here is an example: an innovation that leads to new product development should tie into new product revenue. Pretty simple to measure and evaluate. More subtle forms of innovation should also tie into specific outputs. Developing customizable measures, metrics, and models should be standard operating procedure for everyone in senior management. The trick is to keep it simple and to keep the outputs consistent (e.g. Innovation A should have an impact on customer B, resulting in increased revenue C).

Concluding Kaplan's article is a list of other measures that can help quantify innovation if it is difficult to tie innovations directly to revenue (Kaplan, 2014):

Leadership

Percent of new innovations coming from external sources like crowdsourcing or open innovation

Percent of funding for game changers versus small tweaks to existing products or services

Percent of senior executive time focused on the future versus on daily operations

Employees

Number of ideas turned into patents by employees

Number of ideas turned into innovation experiments by employees

Number of teams that submit projects for innovation awards

Percentage of employees trained in the innovation process

Customers

Number of ideas submitted by customers through "open innovation" programs

Number of new product or service ideas that come from mining social networks

Number of customers that help test and refine new ideas

Patent Citations as Measurable Metrics

Measuring a company's patent citations is a traditional and fairly easy indicator of their innovation prowess. It stands to reason that if a company is investing in R&D, the output is an intangible asset that

is coined as "knowledge stock," according to a white paper entitled, "Market Value and Patent Citations." (Trajtenberg 2005, p.16-38)

> Using patents and citations for 1963-1995, we estimate Tobin's q equations on the ratios of R&D to assets stocks, patents to R&D, and citations to patents. We find that each ratio significantly affects market value, with an extra citation per patent boosting market value by 3%. (Summary)
>
> If this asset is known to contribute positively to the firm's future net cash flows, then the size of a firm's knowledge stock should be reflected in the observed market value of the firm. This implies that a firm's R&D investments should be capitalized in its market value.
>
> Further, since the output of the R&D investment process is stochastic, some of the R&D will result in the creation of more valuable knowledge capital; if this success is observable, then it should be reflected in greater market value bang for the R&D buck.

Connecting innovation to investing is nothing new. Methodically measuring the volume of new ideas being generated is a promising way to value the knowledge stock of a corporation. Without creating any new research, these metrics can be calculated by anyone with the time and desire to search out the data and to implement the metrics.

> Does a culture of innovation drive business results? Empirical research indicates that it does.

Berkeley Innovation Index – a Laboratory Environment

Noteworthy in our search for measuring innovation is a new open project that offers a way to measure innovation capability in a holistic sense (Sidhu 2016)

> BII is a concept and an open project to offer simple yet powerful ways to measure innovation capability in a holistic sense. These measures, models, and tools are based on previously published research findings. The approach is also intended to cover layers of innovation that range from the following fields:
>
> 1) Strategy and Leadership,
>
> 2) Innovation Culture from an Organization's Viewpoint,
>
> 3) Organizational Operations and Measures across functions,
>
> 4) Mindset: The Innovation DNA of the People, and
>
> 5) Tactical measures.
>
> When measured and considered across all levels, we believe that the innovation measurement process can be made more accurate and diagnosable.

CoreBrand Index® -- A Database for Controlled Experimentation

Tenet Partners, CoreBrand Index research database is a quantitative research study that has been consistently and continuously fielded since 1990. The researchers at the firm conduct 10,000 interviews per year of U.S. business decision makers. Quantitative measures of Familiarity and Favorability measure three attributes of the corporate brand: *Overall Reputation, Perception of Management,* and *Investment Potential*. These attributes link to financial performance known as "brand equity" with a contribution ranging from 0% to as much as 21% of the total market cap. This model allows the analytical examination of the impact of internally and externally generated events on the corporate brand and the resulting impact on enterprise value.

As of January 2016, Tenet Partners began fielding a fourth attribute: *Culture of Innovation.* As of this writing, the results are unknown, but there is an expectation that our quantitative measures tying a *Culture of Innovation* to the corporate brand and brand equity of a company will, at the least, contribute to the body of knowledge on the subject as well as provide a link to financial performance.

Work in progress

Does a culture of innovation drive business results? Empirical research indicates that it does. We need to continue to think about the most effective way to help innovation to thrive within the corporation and to truly become part of its culture.

Drucker offers this advice:

> 'How can we overcome the resistance to innovation in the existing organization?' is a question commonly asked by executives. Even if we knew the answer, it would still be the wrong question. The right one is: 'How can we make the organization receptive to innovation, want innovation, reach for it, work for it?' When innovation is not perceived by the organization as a heroic achievement, there will be no innovation. Innovation must be a constituent of the daily routine.
>
> This requires specific policies. First, innovation, rather than maintaining what already exists, must be made attractive and beneficial to managers. There must be clear understanding throughout the organization that innovation is the best means to preserve and perpetuate that organization and that it is the foundation for the individual manager's job security and success. (Drucker 2014, p.

169).

Scott Davis co-authored a recent article in CMO.com entitled, "Three Ways Innovation Can Keep Your Brand Relentlessly Relevant." Here are some highlights that help overcome the "resistance to innovation" described by Drucker in the previous paragraphs:

> On their mission to stay relentlessly relevant, the best brands are constantly scrutinizing their innovation goals, objectives, approach, and track record. They are obsessed with what their competitors are doing and what their customers are yearning for. They know that without innovation, their organizations will not be able to grow and thrive.
>
> While innovation may once have been the sole purview of R&D, the best companies pursue innovation through a much wider lens. They look for transformation everywhere—in new experiences, channels, value propositions, content, and communications. The fundamental question these companies aspire to answer is not how many new products they can create, but how they can create distinctive and valuable products and services their customers will love. (Davis 2015).

"What's measured improves" is a statement that Peter Drucker is known for and which speaks volumes regarding the measurement and valuation of intangible assets like corporate brands, knowledge stock, customer satisfaction, or innovations. Without measurement, nothing moves forward in a meaningful way. Measuring doesn't come naturally to any organization. Resistance to measuring must be overcome for the good of the company, but it also must be shown why and how performance improves at companies that utilize measurement. Measurement is a continual process that should promote a culture of innovation and creativity within companies.

Innovation is good for companies, but innovation alone is not going to lead to better business results. The innovation goal of leadership should be to create a culture of innovation that includes continuous measured improvement in all areas of the company. The greatest service research can provide is to repeatedly prove that innovation like other intangible assets can be measured, valued and managed. Success is achieved when these goals are tied to specific business results such as customer satisfaction, whether they are consumers of your products or investors in your company.

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Review

This article was accepted under the ***constructive peer review*** option. For futher details, see the descriptions at:

http://mumabusinessreview.org/peer-review-options/

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