(Jarboe, K.P., 2015)

Information Innovation Intangible Economy

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Intangible Assets as a Framework for Sustainable Value Creation

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Introduction

To become and remain successful, companies have come to understand that they need to follow a strategy of seek sustainable value creation. As a recent report notes, "Sustainable Value Creation is a core business strategy focused on addressing fundamental societal issues by identifying new, scalable sources of competitive advantage that generate measurable profit and community benefit."[1] The ultimate goal is for the company to achieve growth and high performance.

Intangibles are key value creating assets that need to be developed and utilized in order to achieve growth—and to successfully implement a strategy of sustainable value creation. Every CEO knows that their company relies heavily on its people, its processes and its relations with the outside world. According to The Conference Board 2014 CEO Challenge survey, Human Capital, Customer Relationships, Innovation, Operation Excellence and Corporate Brand and Reputation are the top 5 challenges identified by CEOs.[2] The concept of intangible assets links together this intuitive understanding by successful CEOs with a framework for analysis and decision making.

These assets are called by many names: intangible assets, intellectual capital, knowledge capital, knowledge-based assets, and intangible capital. They all basically refer to the same thing: organizations' non-physical assets. They include, for example, workforce skills and know-how, effective management and marketing, business models, relations with suppliers

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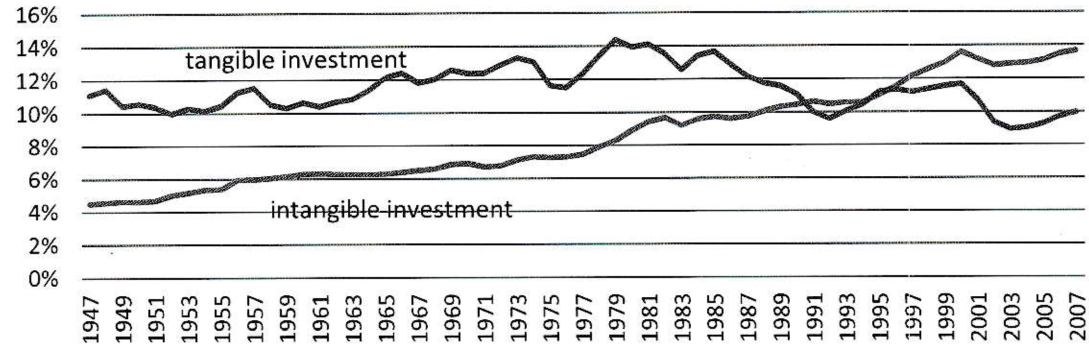
and customers, and software and databases as well as traditional intellectual property (patents, copyrights, and trademarks).

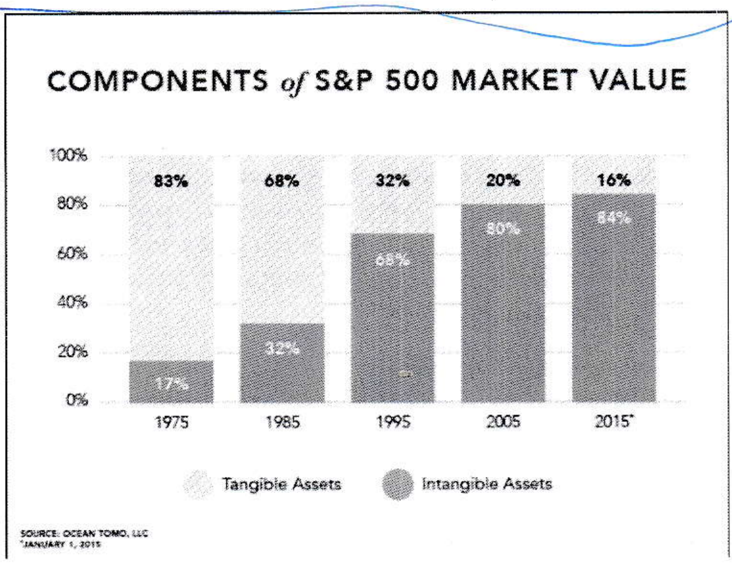
Every industry is now part of the intangible economy. Even property-intensive sectors such as real estate and oil & gas have high level of intangible assets.[3] So do labor-intensive sector such as construction and retail trade.[4] Already business investment in intangible assets is now greater than in tangible assets, such a buildings and equipment.[5]

Rising U.S. non-farm business investment in intangible assets (% of output)



Source: Carol A. Corrado and Charles R. Hulten, "How Do You Measure a 'Technological Revolution'?" *American Economic Review* 100:5, 99-104, May 2010

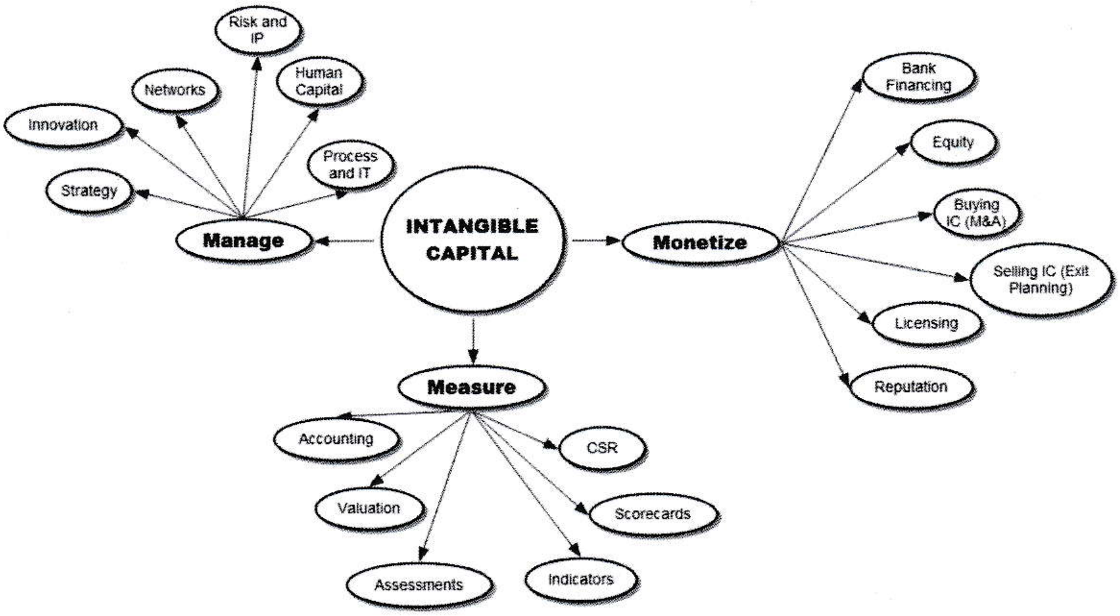
Estimates are that on average 84% of company value consists of intangible assets.[6]



Source: Ocean Tomo, "Annual Study of Intangible Asset Market Value," 2015, http://www.oceantomo.com/2015/03/04/2015-intangible-asset-market-value-study/

As former Federal Reserve Chairman Ben Bernanke has said, the topics of innovation and intangible capital "are central to understanding how we can best promote robust economic growth in the long run."[7]

These are the assets which CEO's need to measure, manage and monetize.



Source: Athena Alliance and Smarter-Companies.

But current accounting and measurement practices misrepresent the nature and extent of intangibles in the modern organization. Current management practices contain many vestiges of the top-down approaches that were used to optimize industrial organizations rather than optimize growth and performance based on intangible capital. Financial markets fail to understand and incorporate the value of intangibles and companies fail to build successful revenue strategies on their intangible assets.

These failures stem from a lack of understanding. Most CEOs don't have the information about these knowledge-based assets they need to make sound business decisions. In 2007, business executives and corporate boards admitted in a survey by Deloitte that too many of their decisions are being made "in the dark."[8] The situation is little better today. But there is now an additional and different problem. While there is growing awareness of the importance of intangible assets, there are a variety of perspectives.

Each perspective has its own use within an organization. All derive from a shared concern: what is measured is managed. And what is invisible does not get taken into account in decision making. This truism of management applies even if the measurement is only at the most basic level of identification. Every manager needs to at least identify their assets, if not precisely measure them.

But the several possible measures give rise to confusion over what exactly the CEO should be paying attention to. Given the importance of intangibles to corporate performance, CEO's need to understand the multiple ways of approaching these assets.

Overview of the Frameworks

There are five differing approaches and frameworks highlighted in this survey:

- Accounting framework -- financial control
  - financial and value creation models
- C-H-S framework -- macroeconomic growth accounting/theory, including productivity
- Integrated reporting -- corporate reporting
  - Sustainable Accounting Standards
- ICounts -- management
- OECD Knowledge-based assets -- public policy

Developed over the centuries, the **accounting framework** attempts to treat intangible assets as the same as tangible assets. These assets are specifically valued and placed on the corporation's balance sheet and subject to standard rules of accounting treatment of an asset. Since these rules generally require arms-length transactions and a strict definition of an "asset," this framework is limited as to what is included (see Appendix Figure 1). Internally generated intangibles are treated as expenses not assets while the same intangibles (for example, patents) acquired externally are treated as assets not expenses. Other intangibles, such as the value of the workforce, are never treated as assets. This framework is important for ***financial control*** purposes. However, given the difficulties of precise valuation and asset definition (recognition), the value of externally acquired intangible assets is often simply lumped into the general category of "goodwill."

Two offshoots of the accounting approach are **financial analysis models** and **value-driver models**. Financial analysis models seek to quantify the specific monetary impact of an asset, tangible or intangible. Return-on-investment (ROI) models are the most common version. Value driver models seek a systemic approach to link resource allocations (i.e. investments) to corporate performance, including financial performance. Most of these models use key performance indicators (KPIs), such as employee turnover and sales per employee, as well a financial outcome measures, such as profits. The extent these models don't fall victim to attempts at false precision, they can be useful for ***strategic management***.

The **Corrado-Hulten- Sichel (C-H-S) framework** (see Appendix Figure 2) is a variation of the macroeconomic growth accounting model which is used to derive the contribution of investments in intangible asset to GDP and productivity. The Conference Board worked with Hulten to apply this approach at the micro level.[9] In essence, this approach it corrects the

Figure 6: OECD Policy Areas

1. Knowledge-based capital, innovation and resource allocation
2. Taxation and knowledge-based capital
3. Competition policy and knowledge-based capital
4. Measuring knowledge-based capital
5. Knowledge-based capital and upgrading in global value chains
6. Knowledge networks and markets
7. Corporate reporting and knowledge-based capital
8. Exploring data-driven innovation as a new source of growth: Mapping the policy issues raised by "big data"

Source: OECD, *Supporting Investment in Knowledge Capital, Growth and Innovation*, OECD Publishing, 2013 http://dx.doi.org/10.1787/9789264193307-en

Notes

[1] *Business at its Best: Driving Sustainable Value Creation*, Accenture / CECP, 2011, http://cecp.co/research/benchmarking-reports/thought-leadership/business-at-its-best.html

[2] Charles Mitchell, Rebecca L. Ray, and Bart van Ark, *The Conference Board CEO Challenge 2014: People and Performance*, Research report R-1537-14-RR, The Conference Board, 2014

[3] Ernst & Young: *Acquisition Accounting – What's Next for You*, February 2009, http://bit.ly/1it73IT

[4] Carrie Ann Green, *What Makes Your Company Valuable? Tangible and Intangible Assets*, Blog posting on Smarter Companies, http://www.smarter-companies.com/profiles/blogs/what-makes-your-company-valuable-tangible-and-intangible-assets

[5] Carol A. Corrado and Charles R. Hulten, "How Do You Measure a 'Technological Revolution'?" *American Economic Review* 100:5, 99-104, May 2010

[6] Ocean Tomo, "Annual Study of Intangible Asset Market Value," 2015, http://www.oceantomo.com/2015/03/04/2015-intangible-asset-market-value-study/

[7] *New Building Blocks for Jobs and Economic Growth: Intangible Assets as Sources of Increased Productivity and Enterprise Value -- Report of a Conference May 16–17, 2011*, Athena Alliance, September 2011, http://bit.ly/1AIufBf

[8] *In the Dark II: What many boards and executives STILL don't know about the health of their businesses*, a survey by Deloitte in cooperation with the Economist Intelligence Unit, 2007, http://bit.ly/1HifXa2

[9] Charles R. Hulten and Janet Hao "Intangible Capital and the 'Market to Book Value' Puzzle," NBER Working Paper 14548, (The Conference Board Working Paper E-0029-08-WP) 2008,
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