

## Understanding and Measuring Intangibles: a journey of learning

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Measuring intangibles, such as human capital, brands, intellectual property and other innovation outputs, and organizational capabilities, constitutes perhaps the greatest challenge for business today.

To agree with this assertion would be to accept that there have been some significant shifts in our economy and in the drivers of value creation, and to accept that measurement matters and that management and measurement are inextricably linked. This article sets out to persuade that 21<sup>st</sup> century managerial mindsets need to be more explicitly oriented to the intangible. We need to be less narrowly oriented in both our language and in our managerial tools around the physical and the financial.

No new economy per se has developed. However, in the words of Paul Romer, some kind of soft revolution does seem to have taken place. That is to say, the elements in business which we have inadequately and inaccurately described as soft, immaterial or intangible have in fact become the key economic goods. A fundamental difference between the 20<sup>th</sup> and 21<sup>st</sup> century economies is that we can no longer rely on tangible assets and the representation of production as purely a physical process to provide us with a reliable guide to the rate and direction of economic change. This not only renders management and financial accounting deficient, but national accounting too.

Mass production has given way to mass customisation; demand-side economics is ceding dominance to supply-side economics; economies of scope are more important than economies of scale. The nature of the firm is changing accordingly. The firm no longer represents a mechanical form, a bundle of owned and static assets arranged in the most efficient Taylorist manner. It is a living organism, a beehive of ideas, to which mobile and transitory individuals bring with them some of the key tools for production. Rather like the natural sciences' understanding of living organisms (such as the human body) penetrated the surface, so economics and management, as disciplines, need to more successfully penetrate the "black box" that is the firm.

Productivity and profitability are poorly explained by mere observation of the volume and cost of the inputs into, and outputs from, this black box. Quality of the processes *within* the black box are crucial elements in determining the outputs (the products/services) and their relative and ongoing success in the marketplace. In the 20<sup>th</sup> century we focused on margin, investment and asset productivity to achieve comparative advantage. This game has run its course. The winners of the 21<sup>st</sup> century game will increasingly focus on architecting capabilities – the capability to innovate and the capability to act – and managing risks such as reputational loss.

That such changes have occurred are widely recognized. At the 2001 World Economic Forum in Davos, 95% of the CEO's polled identified knowledge management as critical to organisational success. PA consulting's "Leading into the Millennium" study identified the following factors as the most important factors for success according to management: human capital, strategy, IT, international competition and marketing.

As Herb Kelleher, the legendary CEO of SouthWest Airlines, the only sustained US success story in the capital-intensive airline industry, put it, "It's the intangibles that are the hardest thing for a competitor to imitate...so my biggest concern is that somehow...we lose the esprit de corps, the culture, the spirit. If we ever do lose that, we will have lost our most valuable competitive asset."

Growth and value creation are not merely a function of the external inputs introduced into the “black box”. Growth drivers are internal and located in the interplay and complementarities achieved between tangible and intangible assets, few of which are owned by the firm, some of which are sourced from the network of alliance and partners within which firms today are located. Cause and effect in such a complex value chain are not only unknown, but arguably are not knowable. There is no direct relationship between a single intangible asset and a financial outcome.

Our understanding beyond this is somewhat limited. Our reliance on financial language and tools explains why. Accounting, as we know it, was invented over 500 years ago to track executed transactions. This worked well in the Italian city-state trading industries, but is severely challenged where years can separate the start of production and associated end-transactions, as in, say, the bio-technology industry and where the historical cost of the physical inputs no longer comes close to relaying the full economic realities of the underlying production processes.

The principles of accounting are entrenched in our managerial practices and thought processes. They influence decisions both within firms and by external agents such as the capital markets. We measure less and less of what actually matters, but take decisions accordingly. This, in the eyes of some, is very dangerous. “Focusing exclusively on financial objectives distorts the structure of [organisations]...and in ways that ultimately jeopardise them. This is the most important business lesson of the past decade,” commented John Kay.

Given we manage what we measure, there is much to be concerned about. Herein lies the challenge for tomorrow’s management.

The challenge has been taken up by a number of organizations. They are too numerous to be covered in this article; instead, I have chosen three approaches, all of which in my opinion *start* to contribute towards solutions.

One approach has been to concentrate on re-formulating financial statements as they exist today to provide more meaningful information. Robert Howell of the Tuck School, Dartmouth proposes that the traditional income statement would be better served by providing measurement along the following lines:

Revenues  
minus Costs to serve customers  
minus Costs to produce products/services  
minus Costs to develop products/services  
minus Administrative tasks

The emphasis would be shifted way from the cost of goods sold which for so many younger companies is a trivial figure to the real work of the 21<sup>st</sup> century organization – taking care of customers, producing things to sell, and producing future offerings. This is fine so far as it goes.

The second approach is also concerned with providing more and better information to the outside world. A number of standards and guidelines have emerged to help companies disclose more on the environmental, social and economic aspects which are not covered in traditional reporting. PwC’s ValueReporting methodology has been developed off the back of extensive research in 13 industries. It postulates that the future of corporate reporting will contain 3 tiers. The first will contain an expanded set of accounting standards applicable to all. The second will consist of measure as and indicators which are applicable to the particular industry. And the third will contain measures that are unique to the company, thereby recognising the uniqueness of value creation within the “black box”.

Measurement matters because human society is very number-centric in its pursuit of understanding. As Lord Kelvin put it, “When you can measure what you are speaking about and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your

knowledge is of a meagre and unsatisfactory kind.”

One pressing danger is that organisations are forced to run before they can walk. Improved external reporting in the interests of transparency and accountability is a worthy cause, but it should be clearly recognised that it is unreasonable to expect management to deliver data on non-financial elements of the business before the meaning of that data is clear.

To that end, the third approach to measurement I wish to mention, namely the Danish Intellectual Capital Statement, identified early on in its evolution that it is the *internal* benefits that are the most important in pursuing and experimenting with the measurement of intangibles. The preparation of an intellectual capital statement has in effect become a learning process. It is not an attempt to value the company’s intellectual capital (or knowledge) in the way financial theory would wish to reduce it to one number. Rather it connects knowledge and capabilities to a purpose, namely the value of the organization’s product/service to the end user. The aim of measurement in this context is to develop a language for thinking, talking and doing something about the drivers of the company’s future earnings by focusing in on what they need to do and know to deliver value to the end user. Under this measurement methodology, “valuing” is a learning process to identify the “living” means by which (net) present value is created and transformed, rather than reducing the firm’s (net) present value to one static numeric value.

Many accept the notion that intangibles are central to creating value in the future. However, in practice, we also tend to fall back on the memes and norms we are comfortable with. We also look for solutions within the parameters of our current understanding and outlook. Consequently, we try to identify assets such as brands and patents, and separate them from their context and value them like we would a building. However, it is uncertain whether that is either possible or meaningful. Theory without measurement is a primitive kind of knowledge and I am not certain we fully understand what we are trying to measure when we set out to measure intangibles in this way.

We are still making (slow but steady) progress in identifying the causal and complex interrelationships of the “black box”. Some connections and insights have been made, but understanding of the full recipe is limited. Nick Bontis, for example, has found that 70% of the variation in companies’ ability to retain key people can be traced to leadership and employee commitment. He has also found customer capital to be the most important influence on revenue and profit per employee. But what makes up customer capital? What are its dependencies? How do they vary industry to industry, company to company?

After all, what we are trying to understand in studying intangibles is value production – how economic rents are created and defended. As economic rents are created from distinctive capabilities, there is no room for a “one size fits all” solution. This is recognised by PwC in identifying the need for a third tier to company reporting, but even more so in the Danish conception of Intellectual Capital which attempts to guide its adherents through a journey of self-discovery. Such a journey is something all of us need to embark on, recognising clearly the primitive nature of our starting-point and the financial bias of our current tools and thought processes. Henry Mintzberg once observed that hard data is a source of information, soft data provides the wisdom. The challenge for organisations is to seek out the soft data which is appropriate to their particular business model, to their black box and to relate that to financial outcomes. Experimentation will be required: measurement is a learning exercise.

This is a strategic imperative, a matter of survival. Why? On the one side, the demands for enhanced and broader disclosure will continue to grow. At the moment, regulation and legislation is thankfully being resisted in favour of voluntary action – but for how long? On the other, and more importantly, being able to effectively and consistently create value in the 21<sup>st</sup> century organization will require the development of a wider set of measurement tools, ones based on a clear understanding of the role and value of the intangible.

Frances Cairncross recently wrote that, “although companies bang on a lot about “knowledge management” and “intangible assets”, few are clear about what either concept means”. We cannot afford for this to be the case in 2012.

PRISM is a multi-disciplinary European research initiative aimed at gaining a deeper understanding of the issues surrounding the management and measurement of intangibles in the modern economy. The PRISM group believes that intangible investments – in areas such as R&D, know-how, software, brands, licenses, copyrights, and organizational design - are *the* drivers of both competitive advantage and economic value-creation.

PRISM is building a community which is actively engaged in addressing the issues, with the longer-term aspiration of stimulating much-needed change in practices. Such practices pertain to policy-making decisions at a governmental level, data, measurement and reporting systems throughout the economy, and the management challenges posed by operating in a context increasingly dominated by weightless and knowledge-related assets.

These issues are central to the EU's Lisbon objective of becoming the most competitive and knowledge-intensive economy in the world by 2010. The PRISM research consortium started up in October 2001, backed by 2-year funding from the European Commission's IST programme. The group's hub is built around eight business schools from seven EU states, and is led by the Cass Business School, City of London. It is advised and supported by representation from organizations such as BP, Barclays Bank, Deloitte & Touche, Ernst and Young, IASB, OECD, PwC, Skandia, Telecom Italia and Thomson Financial.

PRISM's findings are being published throughout 2003, culminating in an "open" conference to be held in London on July 4<sup>th</sup> where PRISM members will speak alongside other thought leaders representing a broad spectrum of our economy. The conference is entitled "Accountability, Competitiveness and Productivity: Understanding and communicating the value of intangibles in 21<sup>st</sup> Century organizations." Our limited ability to understand, manage and communicate the value of non-financial and non-physical values is regarded as highly pertinent to the challenge of improving the UK's economic performance, its productivity and its competitiveness.

For more information on PRISM, its work and/or on attending the conference, visit [www.euintangibles.net](http://www.euintangibles.net).