
New Tools for a New Economy

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As we try to work with the complexities of this fast moving, interdependent work environment how well do our tools and business models support us in new ways of thinking? How long can we reconcile statements such as "people are our greatest assets," with our balance sheets where they show up only as a liability and expense? Today, we do believe that people are our core asset, that the way we utilize our knowledge and intelligence is the key strategic advantage for the company, that high ethical principles do create value, that a company's culture is key to its success. Yet we bound by the golden handcuffs of business, financial and economic models and frameworks that continually pull us in very different directions. How long will we be able to tolerate this disconnect between what we say is important in business and the financial and economic models that drive all of our day-to-day decisions?

Virtually all of our business and economic models, as well as our day-to-day management tools are leftovers from the industrial age. Time and again, I watch managers and executives try to move forward into new ways of working and managing only to be frustrated by tools and frameworks that are inadequate for the new economy. We must find ways to work the emerging set of very different questions.

Rethinking Old Tools

This new economic era has been referred to by various authors as: the Intangibles Economy, the Knowledge Economy, the Experience Economy, and the Idea Economy. Whatever name it goes by, it is rewriting the rules of business and forcing a radical rethinking of corporate value and business models. Several new perspectives of value and capital have emerged, such as intellectual capital, knowledge value added and balanced scorecards. However, these are just the tip of the iceberg of what appears to be the most significant shift in business and economic models since the Industrial Revolution. With this shift, we are also finding many of our analytical tools are not sufficient to understand the complexities of value creation in this new economy.

New business thinking around intangibles and intellectual capital is the latest phase, possibly a transitory one, in the evolution of Western thought from the Cartesian mechanistic worldview based on Newtonian physics to a more dynamic interconnected view arising from insights gleaned from quantum physics, complexity theory, behavioral science, and living systems. The economic and business world is struggling to translate this new understanding of life that has emerged in recent years in terms of what it means for the way we do our work and how we manage organizations. We long to heal the split between the strong human values we hold dear and old business models where they are irrelevant.

People trying to help companies work with these new ideas, however, find themselves living the paradox of having our feet in two worlds. One foot stands rooted (some would say stuck) in the corporate world of management practice as it has existed for several decades. The other foot stands in the fast moving but somewhat murky new waters of intangible assets and knowledge as the new economic foundation of organizations and companies. In the emerging body of thought around this new thinking, one can clearly see both perspectives in play.

The underlying principles and concepts embodied in current theories of intangible assets and knowledge management represent a potentially profound shift of thinking about the world of enterprise and value creation. I say potentially because it is not at all clear at this point whether people will genuinely embrace new thinking or usurp these new concepts in service to old management principles. The field is divided among those who are truly pushing the boundaries of thought and those that think they are doing something new, but are really coming from an old mindset.

Even those of us who are convinced we are introducing something dramatically new and different can fall back into what is tried, true, and familiar. We may rearrange the deck chairs on our thought world with new language, but we haven't at all made the leap from surface "ship" to "atomic submarine." Too much of what we see in management, both as models and as tools, stems from old ways of thinking and old mechanistic engineering-based approaches. People unconsciously try to simply stretch their old perspectives and tools to encompass new ideas, then wonder why they are not getting the results they hoped for. At its worst, this practice can badly mislead people or completely subvert the very principles we are trying to espouse.

It is critical to remember that the fundamental principles underlying intangibles and the knowledge economy are dramatically different than the way we have traditionally thought about how value is created and what makes organizations successful. Peter Drucker,ⁱ Paul Romer of Stanford University, Charles Goldfinger and others have articulated this shift in terms of the knowledge economy in various ways. The core thread of insight weaving through all their work is that knowledge simply does not behave like natural resources. Knowledge and ideas can replicate and multiply endlessly; material resources do not. Natural resources deplete with use. Knowledge expands with use. If a natural resource is sold or given to another, it is at the expense of whoever had to give it up. However, sharing knowledge allows both parties to not only retain the resource but to amplify and expand it through the exchange process itself. This multiplier effect of knowledge as a resource means significantly different economic equations must be brought to bear than in the past.

Further, the business practices and management principles that we are learning to operate by are very different as well. The industrial era enterprise models are no longer adequate to meet the dynamic conditions of an ever-changing world market. Knowledge intensive enterprises are calling forth a new approach to work, organizations, accounting, and business.

Intellectual Capital and Balanced Scorecards

As the new knowledge economy forces a radical rethinking of corporate value, we are beginning to realize that a company's value consists of more than what is shown in its traditional income statements and value sheet. Hidden or intangible assets are playing a more important role as companies now trade at multiples of their book value. What investors are valuing is that company's future financial capital, based on their mostly intuitive assessment of its competitive position, growth record, brand image, partnering capability, innovation potential and management practices. These value judgments factor in intangible assets such as employee competence, computer systems, work practices, relationships, customer lists, and trademarks rather than physical assets such as property and equipment.

Our understanding of intangibles has taken a dramatic step forward since the mid 1980's when Karl-Erik Sveiby introduced the concept of intangible assets to managers in Northern Europe and Scandinavia.ⁱⁱ A number of new accounting approaches have since been proposed to explain, measure and manage these hidden assets. Among these are the intellectual capital methods of Karl-Erik Sveibyⁱⁱⁱ and Leif Edvinsson,^{iv} and in the U.S. we have seen the Balanced Scorecard approach

of Norton and Kaplan.^v At the macroeconomic level there are serious attempts by the OECD in Europe and North American accounting bodies to develop new indexes, equations, measures, and analytical approaches for calculating knowledge assets and understanding intangible value creation. All this adds up to a serious attack on traditional accounting and enterprise models that only regard revenue and physical assets as “valuable,” and that regard people as liabilities rather than important resources and investments.

Those working in the area of Intellectual Capital or Intangible Assets make a compelling argument that value is generated through facilitating the flow of knowledge across the enterprise and converting that knowledge to value in the form of relationship capital (sometimes called customer capital), human capital, and structural capital.

An Emerging Model of Intellectual Capital (or Intangible Assets)

External Capital	Human Capital	Structural Capital
<p>Alliances and relationships with customers, strategic partners, suppliers, investors, and the community. Includes brand recognition and goodwill.</p> <p>Other terms used for external capital include “customer capital” or “stakeholder capital”.</p>	<p>Individual capabilities, knowledge, skills, experience, and problem-solving abilities that reside in people in an organization.</p> <p>Other terms used for human capital are “human competence” or “people”.</p>	<p>Systems and work processes that leverage competitiveness. Includes IT, communication technologies, images, concepts, and models of how the business operates, databases, documents, patents, copyrights, and other “codified” knowledge.</p> <p>Structural capital is often referred to as “internal capital”.</p>

Table 1: An emerging model of intellectual capital (or intangible assets)

According to this perspective, organizational capability requires the ability to see knowledge patterns and build systems that free people to do what they do best, with appropriate networked technologies and information systems. At the core of the most common intellectual capital frameworks one often sees the word, “values,” suggesting that there are a set of core values, such as respect for individuals or trust, that support knowledge creation and value conversion. Adopting such values widens the pipeline so to speak and increases or constricts the movement and exchange of knowledge. The goal is to convert knowledge to value or “capital” throughout the enterprise.

In this view of intellectual capital or intangible assets, the interplay of the three types of capital generates business value, as enabled by knowledge flows and a culture of learning. With knowledge as the resource, this view captures the sense of a company in motion as it converts skills and knowledge into wealth and competitive advantage. The quality of the synergy among these three components of intellectual capital and the capacity for leveraging the flow of knowledge determines a company’s capacity to generate sustainable value.

Compared to the Balanced Scorecard

Another popular approach for expanding organizational performance indicators is the Balanced Scorecard of Norton and Kaplan ^{vi} In this approach four measurement categories are integrated with a company’s strategy and vision. One typical way of picturing this is as four boxes or categories:

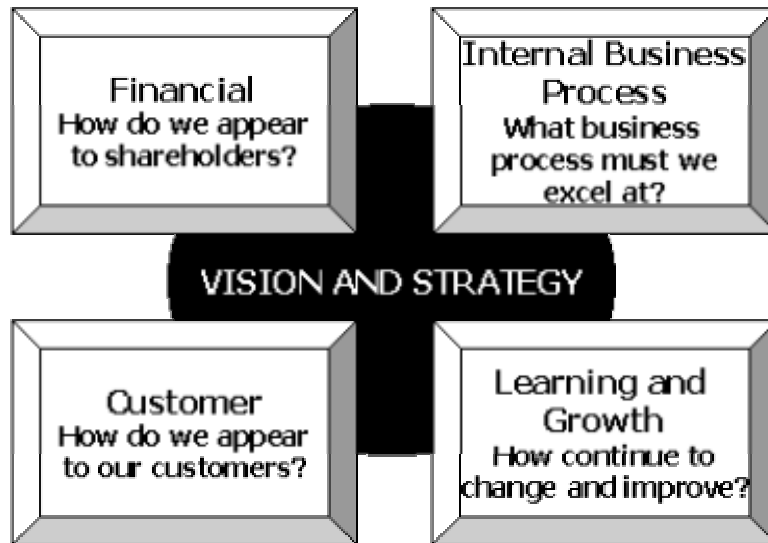


Figure 2: Balanced Scorecard of Norton and Kaplan

In comparing these two models, the Balanced Scorecard does not appear to be based on a dynamic model of value creation but rather on a “balance” model. As long as comparable weight is given in each of the quadrants, the basic purpose of the model has been achieved. The Intellectual Capital view, on the other hand, suggests that the dynamic flow or utilization of knowledge increases capital accumulation in the areas of External, Internal, and Structural Capital. It therefore suggests a more dynamic theory of knowledge and value than the Balanced Scorecard. However, the Balanced Scorecard has been a powerful force in helping raise awareness of intangible performance measures, at least in the United States. Its popularity is fueling a growing management competency for thinking about and measuring intangibles.

Both of these approaches have expanded our thinking about value creation and organizational performance metrics in very important ways. Both have emerged in response to a felt need to see, measure, and understand more of a company’s dynamics than can be experienced through financial measures alone. However, they do not quite yet capture the essential nature of the knowledge economy because both are still too focused on an old idea of enterprise with traditional boundaries about what is “inside” and what is “outside.” The old thinking about the enterprise assumes a company to be a relatively closed system except for very specific supplier inputs and outputs where there is direct revenue exchange with the customer. This intangible asset model and the balanced scorecard begin to expand this view, but only in a limited way.

Beyond the Boundaries

Creating more measurement categories within the old corporate “walls” still falls short of what might be possible if we are really embracing a new way of thinking about value. A truly dynamic, whole system view of the enterprise extends far beyond the boundaries of the company. Companies do not exist in a social or environmental vacuum. However, rarely do business models include dynamic exchanges with larger society or with the earth and its resources. This is a dangerously narrow view of both economics and enterprise as social and environmental factors are increasingly impacting businesses in dramatic ways.

There is a definite progression toward thinking about the enterprise from a more sociological perspective. For example, we are beginning to appreciate that companies are actually comprised of multiple overlapping “communities of practice.” A community of practice, as defined by John Seely Brown, Vice President of Xerox, is comprised of peers in the execution of real work. What holds them together is a common sense of purpose and a real need to know what each other knows. Companies such as British Petroleum, Johnson & Johnson, Buckman Laboratories, General Motors, Pillsbury, The World Bank, Hewlett Packard, the large consulting groups, Xerox, and Chevron are all achieving outstanding business results by focusing on these internal communities. However, even here we see a company-bound idea of community.

Companies are also located in and interact with external communities, both locally and globally, where they act as corporate nodes in the larger social system. Peter Drucker goes so far as to describe society in any developed country as a society of organizations, meaning most if not all tasks are done in organizations, whether public or private.^{vii} This implies an interdependency between organizations and society that is largely ignored in management and business models, particularly in the U.S. Social concerns do play a somewhat stronger role in Europe. Even there, however addressing social capital issues has only recently evolved to being considered as vital to corporate success and not as “interference” with the business agenda.

Enterprises and organizations are not only the fabric of larger society, they are in turn dependent on the larger social system for employees as well as direct customers and a their consumer community. An example of this interdependency is a recent concern expressed by Silicon Valley companies that the poor quality of the school system is beginning to severely impact their businesses. Not only can they not get the qualified knowledge workers they need, people are leaving the valley because they do not want to raise their children there. Such dilemmas underscore that we cannot continue to view the larger social system as disconnected from everyday business concerns.

At an even higher macro level, we have traditionally viewed environmental concerns as basically unrelated to our business models, other than in regard to relationships with regulatory bodies. This is also an unrealistic blind spot in our business model. How can a pharmaceutical company not be concerned with biodiversity? How can any business thrive if the quality of life is so poor that most of the world’s population is struggling for their daily food?

We are beginning to be much more aware of the precarious perch we are creating for ourselves in the larger ecosystem and the trend toward “green” business practices will undoubtedly continue. Already many companies are demonstrating that it is possible to be successful while embracing management practices that are grounded in social responsibility and sustainable environmental practices. In light of these emerging issues, it only makes sense to bring both society and the earth into the enterprise value equation. Encouragingly, Shell Oil is now focusing their public reporting on the “triple bottom line” of financial, social, and environmental success. I hope that we will see more of this in the future. Without addressing these concerns, we are in danger of creating yet one more view of enterprise and economic activity that is disconnected from the web of life.

All this adds up to a global emerging business model of value creation revealed as a pattern in how we think about not only enterprise value, but also wealth creation at the macroeconomic level. Even a quick survey of the thought around intangibles and sustainable development reveals these same themes playing out over and over again. I believe these new perspectives demonstrate that the much touted “paradigm shift” has already happened. Personally, I think this actually happened years ago when as a global community we saw the earth from space. What we have not done is reconcile our business and economic models with our growing appreciation of ourselves as embedded in a globally interdependent social fabric or community that can only be sustained through care for each other and restoration of our natural environment.

The following framework illustrates these emerging domains of value that are being addressed in management literature. To date, however, they have been focused on in isolation rather than being viewed as a whole systems perspective of how value is created in a way that is connected with the web of life.

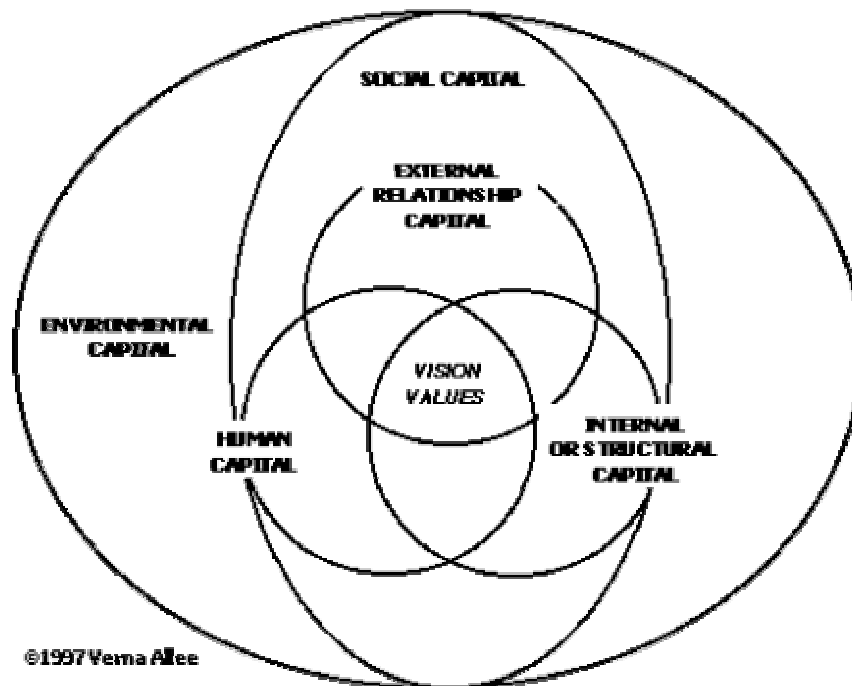


Figure 3: Intangible Assets: An Emerging Perspective of Wealth and Value

External Relationship Capital: Alliances and business relationships with customers, strategic partners, suppliers, investors, regulatory bodies, and government groups.

Structural Capital: Systems and work processes that leverage competitiveness, including IT, communication technologies, systems and software, databases, documents, images, concepts and models of how the business operates, patents, copyrights and other codified knowledge.

Human Capital: Individual capabilities, knowledge, skills, experience, and problem solving abilities that reside in people.

Social Capital: The quality and value of relationships enjoyed with larger society through the exercise of corporate citizenship as a member of local, regional, and global communities.

Environmental Capital: The value of one's relationship with the earth and its resources as understood through calculation of the true costs of resources consumed by an enterprise or economy and determination of equitable exchange or contribution to the health and sustainability of the environment.

This larger perspective, at first glance, would appear overwhelming to address in most companies. Yet, I am finding that people respond positively to this framework at a fundamental human level. It is not so much a question of whether or not these things are important, clearly, they are. The real question is how will we address them? Can we bring coherence and integrity to our business models in light of the higher values that we hold dear?

From Value Chains to Dynamic Networks

From this more holistic view of value, what new questions do we need to ask? We must learn to understand how specific exchanges, activities, or transactions contribute to both tangible and intangible value and what conditions enhance those processes. As a way to think about this, I find two concepts useful. The first is to think in terms of dynamic exchanges, rather than the term “knowledge flow.” This is much more in line with new appreciation of this interconnected universe of complex interdependencies. Flow suggests only one direction, while the idea of exchanges suggests that for every action or transaction, there is some sort of response, a more immediate impact or reaction that can be understood, appreciated, and perhaps even measured in some way.

Further the idea of exchange allows us to expand our thinking to yet another concept – that of the field. A few individuals are beginning to wonder how what we understand about various types of energy fields might relate to organizations. What are the dynamics of the “field” in which the exchanges take place? At British Petroleum, they attend to this field by creating a culture and social norms that support “right conditions” for knowledge sharing. In the intellectual capital model, values help shape the knowledge sharing “field” of the organization. Related to this idea, using insights from Gestalt psychology, we can begin to view knowledge creating communities of practice or knowledge networks as “the ground” from which the knowledge “figures” or explicit knowledge products and activities emerge.

The traditional model of enterprise value creation and innovation is the value chain, which is rooted in an industrial age production line model. The value chain model is gradually evolving into a new enterprise perspective of the network. Enterprise networks are composed of sets of dynamic linkages among diverse members who are engaged in deliberate and strategic exchanges of services, knowledge, and value in order to generate economic wealth. Knowledge exchanges across these networks are clearly the foundation of innovation both internally within the firm, externally across entire industries and globally across national boundaries.

The network view considers the organization as consisting of multiple, overlapping knowledge networks, or webs of conversations. To improve performance of an organization, a company must focus not only on successful network activity, but also on the interaction between the networks. Corresponding themes can be found in the way some authors and researchers are beginning to focus on industry “clusters,” and address connections and linkages in larger industry networks, as in the work of Michael Porter.^{viii} The general premise is that ideas, events, and domains of expertise become visible and compelling to these networks and evolve due to network interactions and social affinities that create particular viewpoints, interpretations, or patterns of understanding.

Once we shift to the perspective of an enterprise as a web or value network, we can also begin to work our definition of value. We then might define value as a tangible or intangible quality, good, knowledge, benefit, or service that is desirable or useful to its recipient so that they are willing to return a fair price or like exchange. Each of these types of value are themselves a medium of exchange, not just money. In other words, we may exchange knowledge directly for knowledge. We

also might exchange knowledge for tangible goods, services, or money. We could also exchange knowledge for an intangible value such as customer loyalty, a strategy Sun Microsystems employed by giving away its Java programming language in order to build a loyal web of users for Java technology.

Three types of value exchange:

Goods, Services and Revenue

Direct exchanges for paid services, delivery of goods, services, contracts and invoices, and the return receipt of orders, request for proposals, confirmations, or payment. Knowledge products, those “virtual value chain” knowledge services that are paid for directly by the customer, are part of the flow of goods, services, and revenue.

Knowledge

Exchange of strategic information, planning knowledge, process knowledge, technical know-how, collaborative design, policy development, etc., that flows around and supports the core product and service value chain.

Intangible benefits

Exchange of value and benefits that go beyond the actual service and that are not accounted for in traditional financial measures, such as a sense of community, customer loyalty, image enhancement, or co-branding opportunities.

Shifting focus to exchanges and networks is more in line with the way the nature of business relationships is changing from close intimate and formal ties to more general, free flowing, informal and constantly changing relationships. Contractual worker relationships, strategic alliances, and creative partnerships are challenging the old boundaries of where one enterprise stops and other begins.

The social, economic, and political ramifications of this new order of enterprise will be enormous. Policy makers, legal experts, and business leaders will be challenged in reconfiguring not just the enterprise, but also the existing laws and supporting social structures.

In addition, a new ethics underpins success in this environment. High quality relationships and trust lie at the core of a successful value network. Core values such as integrity, honesty, responsibility, inclusion, and respect contribute heavily to creating the “right conditions” for fair exchanges to take place. Ethical shortcuts may gain a short financial win only to undermine growth of intangible value and assets such as brand image.

Conclusion

Exactly how we will understand how knowledge creates value or what network dynamics we need to understand has yet to emerge, although a few practitioners have made promising early progress. Many insights and breakthroughs most likely will come from discoveries about complexity and self-organizing systems. A number of different disciplines have explored various aspects of networks, such as the body of research in social networks and collaboration, but we have yet to integrate their discoveries into management practice in any significant way.

Today we have a unique opportunity to help organizations shift from the mechanistic linear thinking of the industrial age to a more dynamic view of the world being ushered in by discoveries from a wide variety of scientific and human behavior fields. We must all question and rethink underlying business models in order to incorporate the new fundamentals for the emerging economy. As we reshape assumptions, beliefs and mental models of what constitutes success, we can begin to reconcile the split between the urge to include more holistic perspectives and higher values in the world of work with outdated business models that simply make that impossible.

NOTES

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