

International management and knowledge management: National, transnational, and global levels¹

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ABSTRACT

New business models are emerging in the 21st Century as markets are going global so new worldviews are needed to compete in these new economic and social contexts for business. For international business management these changes are reflected in the need of trustworthy information to support the Knowledge Management (KM) that is now expanding the research into areas guided by principles of innovation, collaboration, sustainability, and harmony, most of which were not seriously considered in 20th Century management models. In this article an emerging business model of corporate multiplexing is introduced.

KEYWORDS

Business, management, international, global, knowledge.

RESUMEN

Nuevos modelos de negocio están surgiendo al tiempo que los mercados del siglo XXI se vuelven globales, por lo que es necesaria una visión mundial para competir en estos nuevos contextos económicos y sociales de negocios. Para los administradores de negocios internacionales estos cambios se reflejan en la necesidad de información confiable para soportar la administración de conocimiento (KM) que actualmente está expandiendo la investigación hacia áreas guiadas por los principios de innovación, colaboración, sostenibilidad y armonía; la mayoría de las cuales no fueron considerados seriamente en los modelos de gestión del siglo XX. En ese artículo se presenta un modelo emergente de negocios de multiplexación corporativa.

PALABRAS CLAVE

Negocios, administración, internacional, global, conocimiento.

INTRODUCTION

There was a time when many companies in developing countries did not have to consider international or global conditions. Indeed, many of such countries protected national industries through high import duties, complex (unfathomable) local legal systems, and regulations that directly or indirectly discriminated against foreign competition coming into these countries. Protectionism is breaking down. Today national companies in developing countries are themselves going international and even global. National companies attempting to continue strictly



within their home borders are facing an increasing international competition from both developed and in developing countries. In this manner national companies face many new problems, such as changing business models, accelerated changes in markets, cross-cultural knowledge management methods, a shift to international management, and higher levels of leadership.

Dynamic Markets Leadership is a new theory of leadership that is designed to meet even greater rate of change in the 21st Century as compared to the leadership models developed during the slower rate of change in the 20th Century.² The need of new leadership models is indicated in Ray Kurzweil's projection that point that compared to the 20th Century the 21st Century will have 20,000 years of progress as measured by the rate of progress in the year 2000.³

NEW BUSINESS MODELS

National, transnational, or global?

These accelerated rates of progress will be driven by basic science and technology, as well as local cultures and globalization. There are two basic approaches to globalization. The first is merely to expand one's company to apply its same business model in more and more countries until it spans the globe. The second is to consider the world as a whole and adapt one's business model to fit different national values and assure sustainability across the global environment. There are hidden risks in globalization. For example, it was pointed out by Ken Wilber in his book, *A Theory of Everything*:⁴

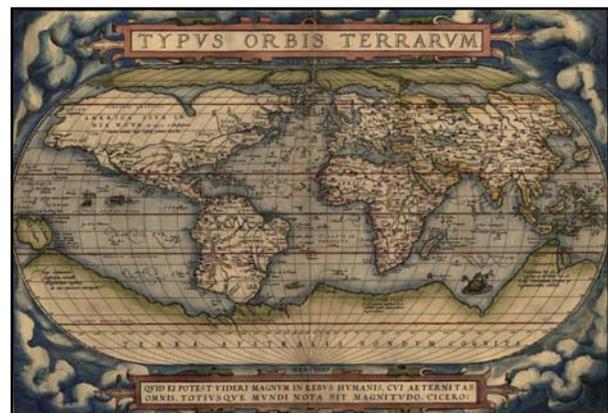
[...] humanity is destined to remain victims of a global "autoimmune disease," where various memes [stages] turn on each other in an attempt to establish supremacy. This is why many arguments are not really a matter of the better objective evidence, but of the subjective level of those arguing.

By vertically distinguishing a number of levels or stages of human development, Wilber argues that at one stage of social development the executives will interpret globalization from that worldview, while at another stage they will have a different worldview and sense of ethical responsibility. Thus, settling into a general horizon and interpretation through one of those horizontal worldviews on a

particular level of human development will also drive strategy. One consequence of faulty strategy is that competitors on one lower level will seek to overwhelm competitors on another lower level, leading to ruthless competition. Business ethics and corporate social responsibility in international management are becoming even more important.⁵

Part of the problem arose because of how international management changed in the multinationals. Basically as companies expanded from their origin in one country, they faced problems in foreign markets such as different languages, different laws, different business practices, and different market preferences. The solution was to designate a regional manager who knew the local conditions. However, that form of "decentralization" was flawed; the regional manager tended to use his or her local expertise to run a division in any way he or she saw as necessary. This regional power and control often degenerated into countries following not specified or expected practices with respect to headquarters. The multi-national company kept its executives and board of directors in the home country, run with that national mentality, which was often one with a sense of superiority.

Still, different countries do have different business conditions. So the transnational corporation arose as an attempt to adapt in international management to local conditions but avoid the local power structures of the regional manager in the multinational company. In a transnational, the idea is to take the best of the regional management and bring them into corporate headquarters to achieve genuine cultural diversity to their international management instead of an ethnocentric management style that dominated all the foreign divisions. In addition to



cultural diversity, the transnational model used the central executive management as a clearing house to receive information about best practices and help expand them into other national settings where they might also work. Thus cross-cultural knowledge management systems became important.

Centralization vs. decentralization in global contexts

In international management the business model of a single global brand like Coca-Cola® is highly attractive on the retail end of the value chain, but many other brands run into a fragmented diversity of national market preferences, regulations, and local distribution channels. A locally adapted brand is easier to sell, but that business model runs into fragmented design, assembly, and distribution problems on the sourcing and production end of the value chain that vary with each local market. All of these are tricky trade-offs and balancing exercises even in traditional markets⁶ where there are still minimal pressures in the value chain.

With the exponentially compounding problems of 21st Century new market⁷ pressures there were new demands such as rapid product life-cycles in the early production end of the value chain.

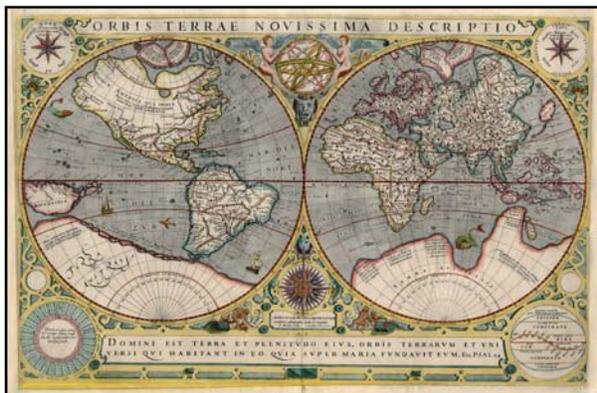
How long will the traditional markets of the 20th Century stay relatively stable? Technology is one but only one crucial variable in the rate of change; technological innovation is accelerating and the rate of market adoption of it is also accelerating. From around 1950 to 2000 it took a few decades for a scientific breakthrough to become a feasible technology, and over 20 years to go from the early adoption of the new technology (the phase of

introduction when it is expensive) to the late adoption of the widespread version that becomes inexpensive, which Kurzweil³ describes in detail:

Today the delay between early and late adoption is about a decade, but in keeping with the doubling of the paradigm-shift rate every decade, this delay will be only about five years in the middle of the second decade and only a couple of years in the mid-2020s. Given the enormous wealth-creation potential of GNR technologies [Genetics, Nanotechnology, and Robotics with Strong Artificial Intelligence], we will see the underclass largely disappear over the next two to three decades....⁸

Cross-cultural relations will also accelerate in these more dynamic markets. This is not merely what started out in the late 20th Century as the trend toward Globalization when the multi-national corporations simply extended their central command structures and homogenized products to more and more countries. In the 21st Century we can expect to see corporate alliances across cultures integrating their respective specializations through cooperative agreements. The business model of one large central and dominating control system will break down in the face of cross-cultural complexity, diversity, and alliances. Continual adjustments will have to be made to the demands of mass marketers with their own centralized warehousing and point-of-sale advertising with market-making capacities (e.g., Wal-Mart) at the sales end of the value chain. Next add in the strategic global chess game of Outsourcing to slash production expenses, or regional alliances to slash national distribution expenses, or financial strategies to better hedge currency exchange rate variations globally.

These are only some of the accelerating changes in 21st Century markets. Some issues are still best met by the older centralized business models, such as standardized components and product image to reduce assembly costs and shift excess inventory from low demand areas of the global market to high demand areas. Other issues like new product introduction are best met by decentralized business models, and the first step towards a new leadership model was Level 5 Leadership, identified in research by Jim Collins,⁹ which involved the head of a company seeking to develop leadership and



collaboration in the levels below so not everything depended on top-down command and control.

In all of these scenarios, the necessity for rapid changes, flexible adjustments, and unprecedented innovations run into more and more barriers to distributed leadership and cross-cultural knowledge management caused by inadequate skills in human dimensions rather than technical areas. These barriers include misinterpretations during human interaction,¹⁰ unwillingness to cooperate, minimal competency in collaboration skills, and the lack of vision to understand what is going wrong or could go wrong. All of these are subjective areas that deeply affect the ability to use intellectual capital and the corporate knowledge base.

So some of the most basic questions here are the questions of knowledge: What is it?¹¹ How do we capture it and make it accessible to those who need it? These questions seem innocent enough, but they are compounded by the additional complexity of multiple interpretations.¹² What is needed is a serious review: What are the major challenges to Knowledge Management and what are the most important problems for it to solve?

THE CHALLENGES OF KNOWLEDGE MANAGEMENT

Many experts agreed that KM over the last several decades has evolved from a more technical discipline (knowledge capture and retrieval, especially with computers) to include the human dimension and more cultural issues (consideration of subjectivity, mind sets, and how knowledge can accelerate social/ economic development of countries). Leading KM people also recognized the need for in-depth study of these complex and powerful subjective sides of knowledge.¹³

An important observation for leaders seeking to use KM was the one made by Hubert Sant-Onge.¹⁴ He said organizations need to have knowledge well-orchestrated and developed as a community to keep up with accelerating change, but factors like Intellectual Capital permeate the organization so they are not easily recognized as being a contribution from Knowledge Management. That means the principles of knowledge are not clear enough for it to stand out and be managed.

Peter Pawlowsky¹⁵ agreed that KM is often defused into many other different functions so it is not labeled as KM. In education KM has few pure degree programs devoted to it; usually is showed up as a module in an Information Technology (IT) degree or a Master's degree for executives. KM has divided into various segments that are not well integrated, such as decision making, systems, cognitive research, and cultural factors (appearing in Human Resources or Intellectual Capital). He sees future areas of emphasis in the research of monetary productiveness of KM. How is it making us more money? How to relate social media like online communities into corporate activities? He believes KM can contribute more to idea performance, crisis management, and business leadership.

KM must look for ways to handle the subjective factors, such as values, beliefs, mind sets, cultures, and a progressive view. The senior leadership in KM has already taken these issues seriously, but they are concerned that the younger generations of management might not continue to seek similar improvements. The younger researchers did not see a "step program" that could be relied upon to train up and coming managers. The guiding principles are becoming innovation, collaboration, sustainability, and harmony, much of which was not seriously considered in 20th Century management models based on bureaucratic organization, independence of departments, and top-down command and control over departments in medium sized companies and corporate divisions in large or global companies.

All of these plus other intuitive processes are becoming more important as Dynamic Markets grow locally and globally. For example, in cognitive research, Jose Luis Abreu, founder



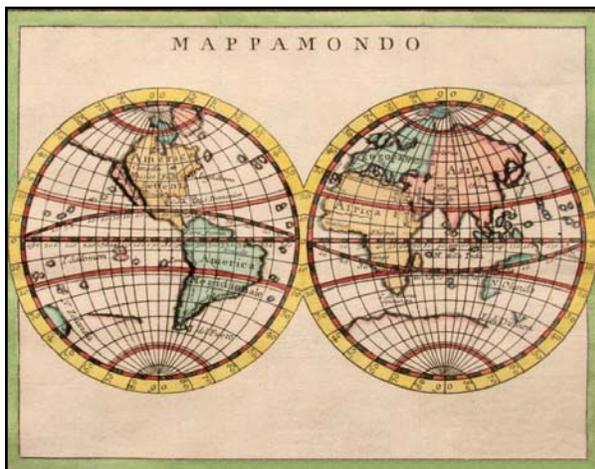
of the Neuroeconomics Research Center in Monterrey, Mexico, has explored the higher-order neuro-processing involved in the transition from computational reasoning to intuitional decision making.¹⁶

...the difference between the computational step and intuition: the computational step is the analytical process, whereas the intuition can be viewed as a latent process that is running in the 'background' of the decision-maker, requiring less processing capacity than the computational step...

[...] it has been hypothesized that the capacity of the human mind for solving complex problems determines whether the potential behavioral outcomes are mainly driven by the computational step or by intuition. If the capacity of the human mind is relatively small (large) compared to the size of the problem that needs to be solved, intuition [...] may be the main driver.

NEW TYPES OF LEADERSHIP

In a nutshell, on one hand the KM experts were looking toward further expansion of the discipline to include the subjective sides of knowledge. On the other hand, Dynamic Markets Leadership¹⁷ expands the scope by explaining how to use the subjective sides of knowledge, consciousness, culture, and Intellectual Capital in international management. The New Planetary Culture is oriented toward integrating into a theory of leadership themes of knowledge creation, mental models, cultural horizons, group consciousness, organizational communities, open learning space, corporate culture,



social culture, cross-cultural knowledge, worldviews, and civilizations.

Globalization brings many benefits but also has its shadow side with risks that leaders are not likely to perceive if they themselves do not go through strong transformations necessary to advance to higher social and cultural levels. Thus, many of these risks are tied to the level of cultural development on which exist the business leaders and specific markets.

The new leaders involved in KM must handle the following concepts:

- Creativity: New leaders quickly get into gear with skills at the early creation and product design end of the value chain. It is not easy for a global company (or aspiring global competitor) to develop new types of leaders.
- Revitalization: 21st Century leaders also will need to excel at implementation and maintenance during the maturing phase of the product/market. Here companies need to bring to the surface again the hidden presuppositions relied upon in the creative phase to avoid crystallization of ideas and procedures, as well as crystallization of power within the company that can become divided into empires.
- Sharing: cross-cultural Knowledge Management is needed to get people from multiple countries and multiple cultures to talk the same language. This requires more than psychological altruism across business units; this requires shared assumptions, presuppositions, values, and worldviews globally that also allow for unity through the diversity. Generally speaking, the conventional wisdom of either business models or international management models from the 20th Century do not address in depth how these problems of variation in cultural values, mental models, and civilizational horizons affect an individual corporate culture and international corporate alliances.

The emerging business model is the integration of many new models.¹⁸ These models include new customer needs (appropriate consumption and sustainability), decision making (distributed leadership), economics (accelerated market changes), psychology (cooperative as well as competitive), new ontology (Non-Dualism), and the Co-Primacy

of Ethics. Ethics takes on an important role in globalization efforts because it is neutral ground based on rational justifications for normative rightness. When different nations, cultures, and religions do not share similar laws, values, or faith, then the commercially driven standards offer neutral ground to handle differences. This new orientation opens up ethical diversity, emancipatory thinking, and new organizational structures that link up companies in joint ventures, corporate alliances, and other forms of corporate multiplexing. These new cross-cultural organizational structures require post-merger or post-alliance integration at a high level of cultural integration that includes myths, stories, standards, values, and principles. It has parallels in Quantum Theory and Complex Adaptive Systems theory. Unlike ordinary knowledge that is based on the forms of things, much of the new challenge to international management based on Knowledge Management is the subjective side of things, the inner world, and the essence.

A NEW APPROACH TO BUSINESS DEVELOPMENT: MULTIPLEXING

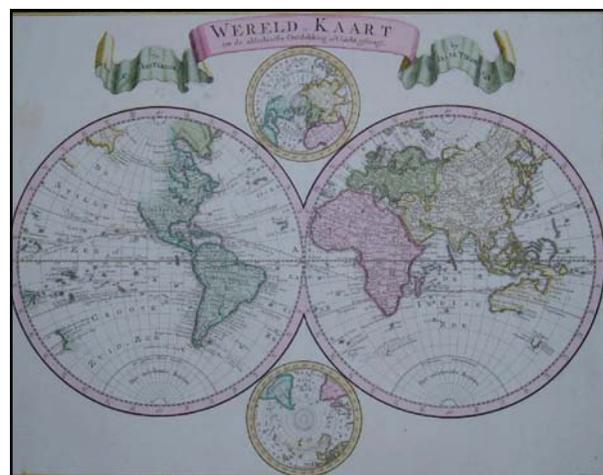
International management requires companies to “fix” their organizational capability. In addition, there are also ways in which the subjective side of Knowledge Management allows us to conceptualize new evolutionary trends about the phases of business organization itself. If this is correct, the higher evolutionary stage will not easily be something “fixed” that started out as an earlier-stage company and merely got more complex. Instead, it will be more than a complex corporate species. I refer to this stage in Phase Three as the corporate multiplex.

Corporate Multiplexing is a way of extending the capabilities of a company; for example, instead of growing slowly by waiting for increased sales, a company can extend its markets by an alliance with other companies that already have market penetration in other countries (that is how national airlines can offer international service). Instead of expecting for other governments to grant approvals for doing business there, Corporate Multiplexing can form an alliance or sell licensing rights (that is how the VHS recording format overwhelmed Betamax). Instead of waiting for an accepting stock market in one’s own

country, Corporate Multiplexing shops the stock markets of the world to see where they can make better stock Offerings. Most importantly, Corporate Multiplexing can use international partnerships or Mergers and Acquisitions to expand, which is where a crucial factor comes to light: successful extensions through other companies require the Corporate Multiplex to achieve new organizational design that supports collaborative relationships rather than “taking control” of another company.

Based in their evolution and characteristics the organizations will transit through different phases:

- Phase One: Traditionally, a business started out with a few key people and grew by increasing its sales and therefore added on subordinates to increase capacity. Beginning around the time of the Protestant Reformation, that was a One-party business ownership system that emphasized building the business alone and maintaining complete control. Some of these companies continued to grow and became national or international giants, whether as privately owned or publically traded.
- Phase One-A: Then new business models in the 21st Century began to improve on that approach to the earliest phase of business start-ups; they emphasized business operations where authority and control were defused throughout the corporation, also with an emphasis on cultural values and cooperative management teams.
- Phase Two: Next, as early Capitalism began to expand these more cooperative organizations struck up Two-party joint ventures, whether the



businesses were privately owned or publically traded companies. By combining forces with another company that had new areas of competence, the first company could suddenly expand.

- Phase Three: The next stage along this path of corporate evolution is the Corporate Multiplex. Here one party forms teaming relations with one or more outside companies, subcontracts out specialized tasks, and suddenly constitutes a new corporate capability where none existed before. Multiplexing requires an unusual degree of future vision, cooperative personalities,

technology integration and modularity. The barriers to Multiplexing are to be found more in the consciousness than in the business structure itself. Once we see the evolutionary trend in organizations towards multiplexing and appreciate its power, we can begin to structure our business efforts in ways that will make multiplexing easier.

The different aspects of the corporative multiplexing in relation to one and two party companies are compared in table I to give an overview of the implications of their implementation.

Table I.A. Characteristics of Company Types.

ISSUE	ONE-PARTY COMPANY	TWO-PARTY COMPANIES	The extended corporation: CORPORATE MULTIPLEX
1) Vision	Focus within the company, develop internal capability, change only with difficulty. Stage One-A re-focuses to vision statements that embrace change.	See the limits of one company and seek alliances or joint ventures. Typically form long-term relations that are difficult to change.	Quick strike in the market, quick disconnect.
2) Identity	A few owners build their own asset base, impose control. Stage One-A shares ownership, fosters psychological identification with the whole company.	Co-owners share control.	Core company shares ownership among the executives and employees. Modular relations to other companies so that it does not have to own everything internally.
3) Energy	Financial strengths slowly built up for independence. May go public. Emphasis on looking strong.	Sudden multiplication of financial strength due to the pooling of resources between the two companies.	Financial strength is limitless: international Sourcing of capital and unique financial engineering puts together the money that is appropriate to the new business.
4) Goal	What we can do within our own limits, gradually increasing. Stage One-A does reengineering but we still are just one company.	Our goal is expanded to what we can accomplish together cooperatively. Sudden new strengths found.	Our goal is what we can do globally without preconceived limits: Form teams with whatever companies needed. Leapfrog over competitors who are slow and working alone.
5) Key Values	Owning, controlling, dominating, being sure of what is next, minimizing risks, specializing. Stage One-A shifts to such values as creativity, innovation, change and group participation.	Sharing, trusting, opening new areas together.	Seeking explosive growth, integrating, finding underlying systems, understanding key trends, building sustainable growth, preserving the environment, quickly disconnecting as markets mature. Value people as the key to success. Maximize creativity, leadership and mutual responsibility.
6) Fears	Losing your grip, not knowing what is going on, taking too much risk in unknown areas.	Losing secret information or technology. Giving more to your partner than you receive.	Launching in the wrong direction, since we reach results so rapidly it is more dangerous to accomplish all that and then find out it is the wrong opportunity.

Table I.B. Characteristics of Company Types.

ISSUE	ONE-PARTY	TWO-PARTY	MULTIPLEX
7) View of Technology	It is the tools we use, a mode of control, and it lets us do more of what we want. Develop and keep it in house.	It is a source of growth, but our company does not have all the technology needed so combine with another company.	It is a detonator for explosive growth. It has to be structured and organized for quick implementation and flexibility so we can steer the rapid change.
8) View of core	Stick to your core industry, support tried and true business practices. Suspect conglomerates. Look for vertical integration. Stage One-A: The core is also values, business practices, deep corporate culture.	Each company retains its core business, but we enhance both by the joint venture.	Multiple cores within our company based on underlying systems integration. Therefore seek out many market opportunities, then interlink with specialized partners as needed.
9) View of the Customer	Stage One: Minimal contact with customers. Manipulate customers with advertising, packaging, etc. Stage One-A: Get close to the customer, understand his needs, keep his trust.	Select our joint venture partner according to who will create real value for our customers.	See an endless customer base. Form close relationships with partners and with customers. Give the customers more than they expect, raise the level of competition. Where necessary, empower customers with innovative financing or project finance.
10) Organizational Structure	Stage One: Hierarchy, control oriented. Stage One-A: Flat, empowering of people, streamlining processes, fostering innovation, trusting the elements to excel in light of the whole.	Empowering each company to contribute to the joint venture. Establish new guidelines for cross-company cooperation.	Set up the organization to handle almost limitless growth, quick connection to other companies, and quick disconnects. Networks of relationships developed ranging from suppliers to customers. Modularity. Common cores. Cross training in functional technologies. High integrity. Personal creativity. Transcendent motivations.
11) Basis for continuity	Grow ourselves, go it alone. Consolidate information in the hands of a few. Stage One-A: Fundamental principles.	Build relationships that will last.	Develop the ability to join forces with other team members quickly and value the disconnect. Do not stay together just because. Share information in real time to maintain continuity through the change cycles.
12) Personality of the winners	Stage One: Domineering, mistrustful, selfish. Stage One-A: Selfactualizing but still individualized. Self centered. Stage One-A: Innovative, cooperative, identify with the company as a whole.	Cooperative. Appreciate new views of one's joint venture partner.	Totally new kind of person going beyond self-actualization and cooperativeness, adding: <ul style="list-style-type: none"> • Transcendent motivations • Comfortable with systems thinking • Interdisciplinary • Not intimidated by limits • Highest integrity • Unselfish, willing to empower others • Endlessly creative, eager to change.

WHY MULTIPLEXING IS NOT READILY USED

There are many reasons that slow down the cooperative implementation of multiplexing, and those reasons include: (1) personality, (2) theory, (3) organization, (4) information, (5) finance, and (6) hollow corporation limitations.

1) Personality

Personality limitations to Corporate Multiplexing are very complicated and perhaps the most difficult to overcome. Some people are well developed, creative, innovative, eager to embrace change, adventurous, trust worthy, cooperative, and altruistic. Such people have the kind of personality that can enjoy multiplexing. Most people fear change, fear letting go of assumptions too quickly, cannot trust others when the rules are not rigidly in place, and do not understand underlying principles. These people need safe harbors within which to work. They mistrust others and do not have enough integrity to inspire others to trust them.

The old corporate personality in Phase One experiences change as loss, and that personality has to be convinced to change.

The new corporate personality in Phase One-A experiences change as progress and tries to change even if it is uncomfortable, since this personality realizes that change is necessary.

The new Two-party personality in Phase Two experiences change within the limits of the new Two-party mission of the joint venture. This new mission is experienced as interesting and these types of people then want to explore more opportunities.

The new Multiplex personality in Phase Three experiences change as exciting because new opportunities are suddenly opening up, which would

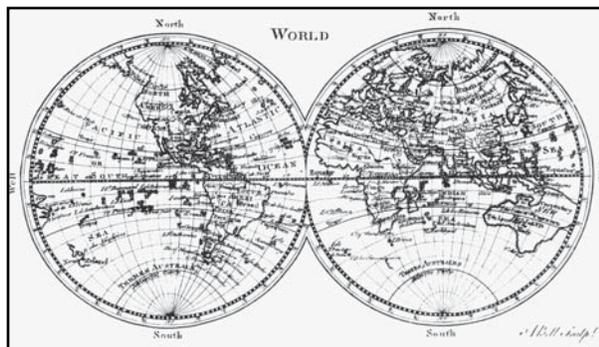
not exist without the new alliances and teaming relationships. Further, these personalities expect the markets to mature and the old-style competitors to catch up to them, so that they are already prepared to pioneer other new business sectors in the future. They are capable of quick disconnects from the teaming alliances in the Corporate Multiplex and ready to form new ones. This personality trait of being wise enough to disassemble outmoded structures is very important. Where the old structures of ego-centric consciousness in the personality want to hold on to old success stories that are past their usefulness, that personality is too insecure to function well in the Corporate Multiplex.

The old personalities in bureaucratic organizations do not easily appreciate new ideas. When you talk to them about new opportunities that have never been tried before, they do not know how to take those opportunities. They either cannot make meaningful contributions to the new concept, or else they fake interest and simply repeat back to the innovators slight variations on the new ideas already proposed. Because they do not understand or are faking it, they quickly get tired of pursuing these ideas. They will not be able to see the connections between the abstract ideas and the real problems of production and marketing. These are not problems of ability or business intelligence; these are problems of lack of multileveled perspective.

By contrast, the new personalities who thrive in Corporate Multiplexing will quickly envision and appreciate new ideas. They will get excited about good ideas because they will have quick insight into the previously unknown opportunities. When they talk about the new areas, they will each be contributing meaningful improvements to the idea, extending it, and testing its limitations. They will be able to discuss these ideas almost without rest because of the level of excitement. They will make meaningful connections and linkages between the abstract ideas and the concrete implementations of them for profitable productions.

2) Theory

The theory structures that slow down the implementation of Corporate Multiplexing include over specialization, over-emphasis on applications,



demands for excessive proof that a decision is right, and limitation to five-sensory information.

These people specialize in something so that they can feel control over their environment. Their theory structure attempts to predict all the variables that they will face. To gain that predictive security, they narrow their efforts to smaller and smaller business sectors. When they want to expand, they demand that new experts be brought in to gain the same control over the new field. Thus, they can expand, but they do it slowly and with great difficulty. They lack a unified theory, a systems approach that can work in many different business environments.

These people also are too hypnotized by what seems to be “practical” and have immediate applications. They can only see the opportunities that are simple variations on the unacknowledged theory structure that they share with their competitors. When they try to reach more fundamental levels, it is usually only in the research and development labs where they do some basic research...usually, not too much. Thus grew most of the companies in the 20th Century, not too quickly. These seemingly aggressive executives are covertly frightened of exploring the vast, the wild, the unknown where creative ideas lurk. Where there is now a greatly successful idea that started ahead of its time, you will find in its early stages executives who missed seeing it, did not see an application for it (non-permanent glue for temporarily posting messages to any surface), laughed it off (talky movies when all that was known was silent movies), attacked the innovators (early cell phone manufacturers verbally abused by companies trying to do the same thing with line-of-sight satellite transmissions), etc.

All of this happens in part because of their ways of seeing and thinking. Another factor, however also exceeded their narrow perspective, namely, when the new idea carried within it the seed of and need of a new world. This more complex form of creativity requires not only doing something new but also creating the surrounding world of a new context, such as infrastructure, customer education, or new standards for appreciation. Large-scale examples are electricity, the automobile, radio, television, computers, the internet, etc. Smaller scale examples are the mouse for personal computers, a special application software, etc.

So the opposite to this type of limited vision is the highly innovative entrepreneur who starts up a company because he has found a whole new product or opportunity. Corporate Multiplexing requires that the same entrepreneurial spirit be kept alive by having people understand the deep theory structures underlying both scientific applications and business applications.

The shallow theory structures also show up as a demand for excessive proof that a decision is right. These kinds of people try to gather endless amounts of data instead of getting first-hand experience of what opportunities are there and how the market will respond. Again, we find that the main issue is a problem of consciousness rather than ability. Practical people with direct applications of the old theory structures could succeed in the 20th Century because everyone competes with the same foundation. Where companies continue with their same business models and management styles today, they are relying on the assumption that what worked in the 20th Century will be good enough for the 21st Century too.

Corporate Multiplexing is assisted if people have strong intuition and go beyond five-sensory types of evidence. They can work with hints, emerging trends, and sudden insights in order to come to decisions about what business opportunity to explore. This capability is not easily taught, but in forming a Corporate Multiplex we can be aware of its importance and hire new people who also exhibit this strength of multi-leveled perspectives found in the new structures of consciousness and the new business models they use.



3) Organization

Organizational limitations that slow down the implementation of Corporate Multiplexing are very powerful and usually overwhelm people who have good intentions. The traditional companies are organized to impose control from the top down by a few people on the many employees. The old-style organizations breed mistrust and require individuals to pursue their own selfish agendas in order to get ahead. These organizational dynamics completely undermine Corporate Multiplexing.

Organizations are also typically divided into functional departments that do not communicate well with one another. If the organization's administrative, marketing, production, and finance departments cannot cooperate, then it cannot even progress to Stage Two where joint ventures are formed. Process reengineering may be necessary to streamline the organization and make it process oriented rather than department and function oriented. The old structures of consciousness are used to those organizational limitations that functioned in the 20th Century. For centuries the simplified paradigm of empiricism, centralism, efficiency, massive size, and control worked up through the 20th Century.

A discipline bestowed by multi-leveled perspectives that is missing but needed there can be seen in the results of mergers and acquisitions (M&A), which comprise a financial sector worth trillions of dollars. Yet most of the promised gains from mergers or acquisitions do not materialize because the two organizations are not capable of working together. Post-merger integration is the most important part of the opportunity and the least understood in the 20th Century. The two (or more)

organizations see differently, assess value differently, assess risk differently, predict differently, recognize trustworthiness differently, criticize differently, form alliances differently, and on and on. The differences go deep into values and corporate culture because the two organizations grew up each with their own way of capitulating to executive top-down power and control. Each had become experts in pleasing the boss, but the bosses were different: different prejudices, biases, whims, fears, and points of stubbornness.

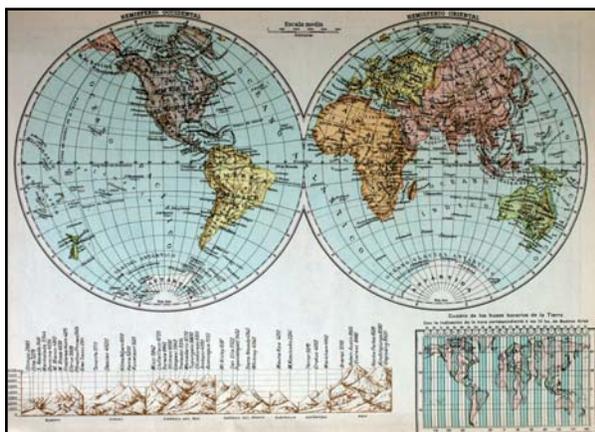
Within one organization the inability to adjust were sorted out so that incompatible people were marginalized and terminated: power imposed order. When, however, two organizations have to get along, the resort of the power of one is resisted by the other organization that has been long trained and disciplined to respond in a different way to the whims of a different power. Severe power conflicts typically result in post-merger or post-joint-venture disintegration. Frequently the best intellectual assets of an acquisition walk out the door. In a joint venture, the venture partner simply says "I do not have to put up with this..." and the whole company or its intellectual assets walk out the door.

4) Information

Limited information and inadequate information technologies often slow down the implementation of Corporate Multiplexing. By its nature, multiplexing means getting a lot of parties to cooperate and interact, so the quantity and quality of information exchanges involved are very high.

The Phase One companies since the beginnings of Capitalism breed secrecy and information hoarding. Specialized departments rule over their own realms and disdain others who are not experts in their functions. The productive process is restricted as one departmental function hands off the business development or product to another departmental function. Without integrated processes, there are endless opportunities for error, confusion, and noncooperation.

In Phase One-A companies in the 21st Century, international management requires there to be a new emphasis on integrating the processes, finding the underlying patterns and continuities so that all the people involved become responsible for the ultimate success of the product.



To accomplish process integration, the company has to also accomplish integration of information systems. Common systems, integrated networks, and on-line real-time systems are fundamental. Logistics control involves the entire supply chain including sourcing components and materials, scheduling outsourcing production, shipping, warehousing, distribution into the distribution channels, monitoring sales, predicting customer requirements, and advanced planning to maintain the international flow of goods. Knowledge Management systems also are important for the identification, capture, data warehousing, and universal availability of expertise throughout the corporation for all levels of decision making. When the Knowledge Management systems are used to integrate information technology with value-added productivity in international and global markets, the company has an important tool for both the learning organization concept and distributed leadership.

It is important to recognize that KM does not work independently of the structures of consciousness of the designers and users. We need to know for what purposes we will use KM so we can organize it well. We need to have the culture of “input” to capture the information with which KM will work. If we are not already willing to cooperate and share knowledge, a KM system will be limited by our hoarding of knowledge.

5) Finance

Financial limitations to companies are also very powerful incentives to try Corporate Multiplexing. The traditional approach to corporate finance specialized in the money aspect. The Phase One Company developed its own asset base, so corporate finance had a treasurer who borrowed money or issued Stock for a known entity with a “credit rating.” If their company was too small, they simply would wait for it to grow and gain credibility.

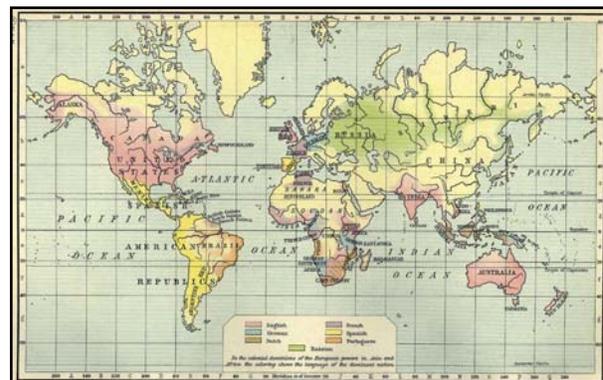
But in Corporate Multiplexing, they combine many talents that go beyond the simple aspect of money. Here they have to be dealmakers and financial engineers, as well as organizational development people. The assumption of the Corporate Multiplex development is that the core company does not have to be everything: it can do what it needs to do by quick alliances. Therefore, the capitalization portion cannot be done after the fact.

The multiplexer has to envision the new business opportunity, negotiate with joint venture partners, structure the financial support, and organize the relationships that will allow the new venture to be successful. If the multiplexer tries to wait until after a deal is done to find the financing, the deal will probably never get done. What we need to finance does not yet exist. This is more typically a venture capitalist approach, except that in the Corporate Multiplex, the founders are both the venture capitalists and the entrepreneurs. The dealmakers in the Corporate Multiplex are not just capitalizing an existing corporation; they are envisioning new structures and creating what they envision. They have to understand the details of new business opportunities that would not exist without the other partner companies. Thus, the Corporate Multiplex executives have to be dealmakers who are:

- a) Entrepreneurs who envision the new markets.
- b) Negotiators who convince other companies of new opportunities and then structure the new relationships as dealmakers.
- c) Networkers who have the relationships and trust needed.
- d) Financial engineers who find the capital support and structure attractive returns on investments for all parties need a better evaluation of intellectual capital.¹⁹
- e) Organizational development people who restructure the cooperative partnerships to quickly align their management philosophies, corporate cultures, and production processes for cooperative work.

6) Hollow corporation limitations

The idea of the “hollow corporation” refers in part to the issue of where the manufacturing



expertise resides. Frequently, multiplexing meant outsourcing to production facilities in foreign countries. The result was that the home corporation became hollow: it was a headquarters but had reduced manufacturing capability.

Hollowing is a relative problem. On one hand, the hollow corporation does lose its manufacturing facilities, if it so chooses. Worldwide outsourcing is possible in many industries, and the home company becomes a vast design, purchasing, logistics, and marketing company that buys its products made to its own specifications. The many advantages of e-commerce and e-business allow internet facilitation of both sourcing and sales, and everything along the chain of supply chain management, enterprise resource planning, and a variety of other computer systems. A hollow corporation may become stronger in research and development but weaker in production.

On the other hand, multiplexing has no set form. Some companies form strategic alliances with other companies strong in production. The capital investment in production companies helps to keep a strong relationship. While the production is not “in-house” for the home company, there is still an ownership of production capability through a joint venture.

Finally, the issue of “lost” production capability may be more a question of nationalism than of Capitalism. If the world is less secure politically, the home company takes a risk that its outsourced production could be interrupted by political/economic upheaval in the countries from which it receives its contracted production.



SUMMARY

National companies need to prepare for international management.

- First, their country borders are opening, so their competitors and suppliers are no longer all domestic companies. To sustain a competitive advantage they need to think and act in an international context.
- Second, just like transnational companies the new competitors have gained power through Knowledge Management, Supply Chain Management, and the kind of value for cultural diversity that makes them more appealing locally.
- Third, the adoption cycle of new products is shrinking to only a few years in many industries, so nationally produced products can be quickly outdated.
- Fourth, Knowledge Management itself is fast changing into cross-cultural KM that must handle values, beliefs, mind-sets, and cultures in addition to mere information.
- Fifth, organizational design and business models themselves are changing to adapt to global competition. Corporate multiplexing is a way of building an extended organization through licensing, outsourcing, joint ventures, project-level partnerships, and international capital structures to finance them.
- Sixth, the new international managers who handle these areas even for national companies are becoming multi-faceted Deal Makers, Organizational Designers, and Financial Engineers.

All of the facets of corporate multiplexing in international management described herein require a high level of ethical integrity to allow the interpersonal relationship to develop the mutual trust needed to work across departmental, corporate, and country boundaries. Traditional companies of the 20th Century with top-down command and control management systems will predictably have a difficult time with the changing market demands in globalization and the more complex international management relationships like corporate multiplexing that global competition requires.

NOTES

1. Portions of this article are excerpted from the author's book, *Dynamic Markets Leadership*, copyrighted in the USA and is In Press, 2012.
2. Loverde, Lorin J, *Dynamic Markets Leadership: a Multidisciplinary Approach to Business and the Hidden Soul of Capitalism*, which comprises Volumes I and II of *New Planetary Culture: a Multidisciplinary Approach to Dynamic Fields Leadership in the Coming Eras*, Portland, OR: GDI Press, In Press, 2012. www.governancedynamics.org See Introduction.
3. Kurzweil, Ray. *The Singularity is Near: When Humans Transcend Biology*. New York: Viking Press, 2005. p. 338. See also www.kurzweilAI.net
4. Wilber, Ken, *A Theory of Everything: An Integral Vision For Business, Politics, Science, and Spirituality*, Boston: Shambhala, 2011, p. 24.
5. Vicenzi, Richard and Loverde, Lorin, "CSR Metrics: Do they Point to Cultural and Competitive Determinants that Influence Technologically Driven Companies Toward or Away from Corporate Socially Responsible Approaches?" In 2011 Proceedings of Portland International Center for Management of Engineering and Technology (PICMET '11): Technology Management In The Energy-Smart World, 2011, pp. 2395-2406.
6. Markets that are slow enough in change so that top-down, Centralized command and control systems still work in them. They are internally self-perpetuating to the degree that product lifecycles allow all competitors to put forth similar competencies and strategies. Also, externally they remain in continuity as long as impacts from relevant externalities are not too rapid.
7. These new markets are ones changing too fast for top-down, centralized management models to keep up with the accelerating changes and world-class competition.
8. Op. cit., Kurzweil, p. 338.
9. Collins, Jim, "Level 5 leadership: The triumph of humility and fierce resolve." *Harvard Business Review*, Jan 2001.
10. Loverde, Lorin, "Business Leadership and New Structures of Consciousness," *Ingenierías, Revista de Divulgación de la Facultad de Ingeniería Mecánica y Eléctrica de la Universidad Autónoma de Nuevo León, México*, Vol. V, No. 15, March 2002
11. Op. cit., Loverde, *Dynamic Markets Leadership*. See Chapter 6, "Cross-Cultural Knowledge Management".
12. Op. cit., Loverde, *Dynamic Markets Leadership*. See Chapter 7, "Structural Interpretation."
13. International conference on Knowledge Management (KM) and Knowledge Based Development (KBD), Organized by Javier Carrillo, was held September 4, 2012 at ITESM, in Monterrey, Nuevo Leon, México <http://sistemasdeconocimiento.org/en/>
14. Hubert Sant-Onge was Senior VP of Strategic Capabilities at Clarica and Visiting Scholar at Harvard University (2005-2006).
15. Peter Pawlowsky is Director of the Research Institute for Organizational Competence and Strategy, Chemnitz University of Technology.
16. Abreu, José Luis, *Brain Economics: The Spenta Model*, Monterrey, México: Universidad Autónoma Nuevo León, 2011, pp. 144-146. See also Pennings, Joost, Philip, Garcia, and Eligius, Hendrix, "Towards a Theory of Revealed Economic Behavior: The Economic-Neurosciences Interface," *Journal of Bioeconomics*, 7: 113-127.
17. Op. cit., Loverde, *Dynamic Markets Leadership*, Volumes I and II.
18. From the larger perspective of the NPC, Level 5 Leadership is the logical implication of new orientations in business. Indeed, it is also logical that there are other stages of leadership beyond Level 5. Level 6 Leadership is needed for breakthroughs beyond the existing horizon of possibilities and then stabilising evolutionary changes in new structures of consciousness; this means people do not make breakthroughs in horizons as isolated individuals.
19. Loverde, Lorin. *Intellectual Capital Evaluation: an M&A Approach*, Knowledge and Innovation, a Journal of Knowledge Management Consortium International, Vol 1, No. 3, April 2001. Retrieved from <http://www.kmci.org/kijournal.html>