Sustaining Innovation in the Global Corporation:

The Role of Managers, Entrepreneurs and Leaders

Professor Philip A Dover
Babson College
Malloy 109
Babson Park
MA 02457
Tel: 781-239-4255
Fax: 781-239-5020
e-mail: ***dover@babson.edu***

Professor Udo Dierk
MEL – Institute
Weikenweg 13
D-33106 Paderborn
GERMANY
Tel: +49 5251 6938 579
Fax: +49 5251 6938 531
e-mail: ***udo.dierk@mel-institute.com***

Acknowledgements: The authors wish to sincerely thank the Babson Faculty Research Fund, the Glavin Center for Global Management and the FHDW for their kind support for this research

Sustaining Innovation in the Global Corporation: The Role of Managers, Entrepreneurs and Leaders

Abstract

How can we understand the role of key personnel in sustaining innovation within corporations around the globe? This article presents the results from the pilot study of a two-stage research project. It is underpinned by the concept that three basic archetypes exist – managers, entrepreneurs and leaders. We tested a new tool: the MEL-Index, a numerical and graphical representation of executives' evaluation of their own and their corporation's performance as managers, entrepreneurs and leaders. It was shown to have considerable diagnostic potential. Improvements were made in the test instrument, which will form part of the subsequent extended study.

Sustaining Innovation in the Global Corporation:

The Role of Managers, Entrepreneurs and Leaders

Philip Dover and Udo Dierk

INTRODUCTION

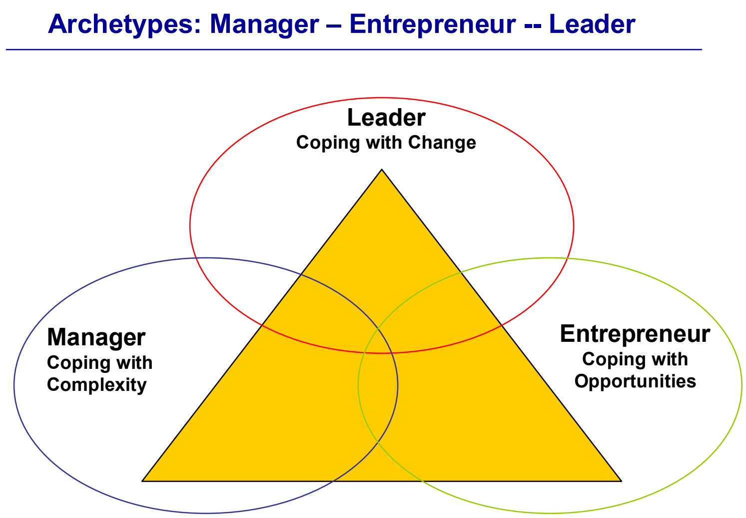
The continued sustainability of companies depends on effective management of the present combined with imaginative vision for the future. On the one hand, they need to optimize processes, organizational structure, staffing procedures and the like, to be faster, more cost efficient and responsive to current markets. Such focus allows companies to succeed in the present and near future. But this does not at all ensure continuity in the longer run. In order to achieve this, companies must also regularly assess their vision, encourage innovation, be willing to adjust or change strategies, products and markets and more. This adaptive approach helps them forge a flexible and dynamic roadmap for the medium and long term future. In order then to sustain both short and long term futures companies must work simultaneously on doing the same things better while stimulating and responding to change (doing things differently). It may well be that the emphasis shifts from current optimization to future change management and backwards like a pendulum, depending on such factors as the situation at the individual company, market forces, and the socio-economic environment.

Many organizations struggle to attain this delicate balance with the result that otherwise adept companies often fail in rapidly changing markets. Recent business history is replete with companies who have either gone to the corporate graveyard (e.g., Digital Equipment Corporation; Wang; Siemens-Nixdorf) or are now sadly diminished (e.g., Polaroid; Kodak) because of the reluctance of senior management to embrace necessary change (a classical yet apocalyptic example was the collapse of the Swiss watch industry in the 1970s and early 1980s where companies refused to accept the digital threat to their analog dominance). Following many years of observing and working with both SME's and large international corporations, we became fascinated by the concept of the *ambidextrous organization*[1] and by the formal and informal roles played by various personnel in longitudinally guiding the firm. The decision to commence this major multinational research project therefore started with the *a priori* view that strategic and operational success depends, in large part, on the combination of skills evident in the leadership group of a firm. Such skills must serve the company in both the short and longer term as well as in a variety of contextual settings. In particular, we became interested in the

[1] This term was first used by O'Reilly and Tushman (2004) to describe companies that manage for short-term efficiency by emphasizing stability and control, and for long-term innovation by taking risks and learning by doing.

integrative impact of three types of personnel – managers, entrepreneurs and leaders – in the sustainable fortunes of the organization.

This basic conceptual building block for our research – that three major decision making archetypes exist – receives some support from the business literature (e.g., Kotter, 2001; Mintzberg, 1990; Thornberry, 2006; Zaleznik, 1992). Initial evaluation of this secondary research suggests that managers, entrepreneurs and leaders bring different skills and capabilities to their company roles. We have tentatively summarized them as *focusing on current complexity (Manager), focusing on change (Leader), and focusing on opportunities (Entrepreneur).*



While the management literature is quite well represented by work on the similarities and differences between leaders and managers (e.g., Goffee and Jones, 2000; Zaleznik, 1992) – and has started to address, if somewhat less completely, the associated role of corporate entrepreneurs (e.g., Darling, Gabrielsson and Seristo, 2007; Garvin and Levesque, 2006; Thornberry, 2006) – it is largely silent on the *combination* of skills required of executives to guide the short and long term development of the organization. This led us to pose a number of intriguing questions:

> -- what is the weighting of these managerial, entrepreneurial and leadership practices that result in optimal short and long term corporate performance? How are these weights impacted by contextual variables such as industry maturity, technological intensity and cultural norms?
>
> -- do we all have elements of managerial, entrepreneurial and leadership skills in our approach to problem solving? Can we measure the balance of skills contained within

members of an executive group as well as measuring the spread of capabilities across the group (e.g., business unit) or company?

-- if different kind of capabilities are required to simultaneously work on both short and long term initiatives, how can they be balanced to ensure smooth operations and leverage conflict? How does attaining (or failing to attain) this skill balance impact the innovation profile of the organization?

If everyone working in a major decision making role has some degree of each of the three archetypes in him/her, then the balance of these archetypes could cast a negative as well as a positive influence on decision making at both the individual and leadership team levels. Consequently, our interest lay in understanding and measuring the combined role of the manager, leader and entrepreneur at short and longer term horizons in a company's fortunes. Specifically, this led to the following research objectives:

1. To develop and validate a measurement instrument (the MEL-Index) that will allow an organization to assess the managerial, leadership and entrepreneurial capabilities of its key personnel as well as the company as a whole.

2. To operationalize the MEL-Index in a number of business contexts including geographies/cultures, size and type of company, stage of the industry life cycle, and management level (senior executives + high potentials).

3. To correlate MEL-Index profiles with company performance metrics (profitability, market share, customer loyalty, etc.) and perceived level of innovation activity.

4. To offer prescriptive guidance to corporations on achieving an appropriate balance between entrepreneurial, managerial and leadership capabilities.

This paper reports on a pilot study carried out to better understand perceptions of the role and required skills of the manager, leader and entrepreneur, as seen through the eyes of executives in European and American companies. It also set out to resolve how these archetypes can best be measured and interpreted, both individually and organizationally. As such, it acts as the necessary foundation for a major global study to be carried out over the next few years. Before exploring the research methodology and findings from the pilot study we will briefly examine the relevant literature on the topics of manager, leader and entrepreneur and establish a conceptual framework for the project.

LITERATURE REVIEW

A recent large-scale study by McKinsey (Leslie, Loch and Schaninger, 2006), involving over 115,000 managers from almost 400 discrete business units in 231 global businesses, posed the question as to which combination of management practices are the most effective at creating high levels of near-term organizational performance and longer-term organizational health. They found that by far the most dominant base case pointed to *accountability, clear direction setting, and a strong culture* as the main foundations of a high-performing company. To quote from the report, "senior executives must provide for clear roles within a structure matched to the needs of the business (accountability), articulate a compelling vision of the future (direction), and develop an environment that encourages openness, trust, and challenge (culture). Note that it is the complimentarity among such practices that creates organizational excellence – that is, the ability to generate sustained performance year after year. The report also noted that contextual differences in organizational culture and strategy are more important than contextual differences among industries or types of work. The base case is equally successful in, for example, manufacturing industries, dominated by equipment and labor; financial services, dominated by capital and systems; and pharmaceutical companies, dominated by knowledge and innovation.

These thought-provoking findings are germane to our view that three archetypes of leadership exist. We can see "accountability" as mainly a managerial function, requiring the ability to guide present and near-future activities. "Direction" is very much a leadership role that maps the future and prepares the organization for change. The "culture" dimension can be seen to embrace – at least in part – an entrepreneurial element. Here trust and openness stimulate the decentralized search for value creation through new product and process opportunities. It bears repeating that a company's performance and underlying health are much more likely to be improved by a combination of complimentary practices. But how can the diverse characteristics of managers, leaders and entrepreneurs effectively be welded together to create sustainable high performance? Let's first explore a few of these characteristics.

Managers*:* An oft-heard comment is that "most corporations today are over-managed and under-led." Is this pejorative statement justified or are managers getting a bad wrap? Before commenting we should examine some of the behaviors and characteristics – positive and negative – often associated with the manager.

Managers are most frequently linked to pragmatic, functional activities – planning, organizing, coordinating and controlling (Mintzberg, 1990). They are seen to bring order and structure to situations, place emphasis on reducing complexity and risk, concentrate mainly on attaining efficiency and productivity (rather than growth and innovation) and act within circumscribed rules and processes (indeed they are often the originators of such rules and processes). They tend to act collaboratively in order to get things done and work best when their own role authority and responsibility is clearly defined (Zaleznik, 1992). Within these parameters they are adept at using negotiation, reward, punishment and coercion to achieve planned objectives. Their critics may see them as fearful of change and adherents of the status quo.

Personal characteristics that facilitate these actions include the following: rational, analytical, persistent, hard working and conscientious, disciplined and cautious. They are seen as conventional and concrete thinkers who prefer to operate in structured relationships (e.g., formal teams) and rigid organizations (centralized rather than decentralized -- see Hornsby, Kuratko, and Zahra, 2002). It has been observed that "obsessives" make good operational managers. These individuals set high standards, are critical of anything but the best performance, and are very goal oriented. Although limited in forward vision, they are skilled at reading and exploiting the current business context (Maccoby, 2000). They have been described as "worldly" because of their deep appreciation of the prevailing reality. As such they are sound problem solvers (Gosling and Mintzberg, 2003).

We would tentatively suggest that managers are comfortable with their own flexibility in dealing with established business settings. Consequently, the better managers have the ability to spot opportunities to aggressively expand the scale and scope of the current business (Mayo and Nohria, 2005). Where they become less comfortable, and therefore less self-reliant, are when market changes demand that growth results from new product platforms and new strategic approaches. This feature marks one of the major distinctions between managers and leaders.

Leaders*:* This comprises a more amorphous and diffuse grouping. Unlike managers, who have a formal job description that allows performance measurement, leaders are expected to act without such guidelines while providing direction and inspiration to others. Undoubtedly this topic of leadership has had more ink spilled by scholars than virtually any other.

What are our expectations of a leader? Perhaps the most essential is the need to excite others by establishing a vision and creating clear strategic direction (Goffee and Jones, 2000; Goleman, 1998). This includes the ability to cope with, and often stimulate, change. As such, they need to be forward thinkers who can visualize and help forge the future. They deal well with complexity and ambiguity, devising innovative solutions through consideration of multiple options (Martin, 2007). As an employee they will have areas of formal authority although much of their impact will come from informal persuasion and influence (what Cohen and Bradford (1991) have termed "influence without authority")[2]. They work hard to develop an atmosphere of trust and integrity as well as a collaborative environment in which to operate (Kotter, 2001). Accordingly, they encourage a strong interchange of views among colleagues and subordinates in order to encourage new ideas (Zaleznik, 1992). They tend to leave implementation and short-term problem solving to others. This results from them having the self-confidence to select good people and delegate fully to them.

What then are the personal characteristics of successful leaders? A series of adjectives have consistently been associated with them – charismatic, engaging, inspirational, trustworthy, energetic, influential, empathetic, integrative, self-aware, tough, and determined. A few of the attributes are common to both managers and leaders (e.g., toughness, determination). However, it is the perceived differences that are of the most interest. Managers operate within a largely pre-

[2] Indeed, we would argue that real leaders are found all over the organization, from the executive suite to the shop floor. To quote Goffee and Jones (2000), "… leaders are simply people who have followers, and rank doesn't have much to do with that."

determined set of parameters, leaders do not. This is manifested, for instance, in the attitude towards goal setting (Zaleznik, 2002). Managers adopt an impersonal attitude towards goals, seeing them as necessities over which they have limited control. Leaders, on the other hand, adopt a personal and active approach, feeling it important to be involved in goal determination and direction. We would cautiously present the following broad distinctions. The designations represent end-points on a continuum with leaders and managers tending towards the opposite ends of these ranges.

Managers	***Leaders***
Cognitive	Emotional/affective
Concrete	Intuitive/abstract
Systematic	Unstructured
Plan driven	Idea driven

Can a person act as both a manager and a leader at the same time? Is it possible for the same person to switch from being a manager to a leader (and back) as the occasion requires? What are the personal characteristics that make this transition easy or difficult? These and similar critical questions form an important part of our research.

Management researchers have identified a number of leadership forms. These include *transformational leadership* (change through continuous innovation -- Darling, Gabrielsson and Seristö, 2007), *charismatic leadership* (creating an inspirational view of the future – George and Jones, 2005), *entrepreneurial leadership* (effectively dealing with opportunities – Morris, Schindehutte and LeForge, 2004), *zeitgeist leadership* (adapting to changing business conditions -- Mayo and Nohria, 2005) and *narcissistic leadership* (emphasizing both the advantages (innovation, drive, charisma) and disadvantages (overly-sensitive, poor listeners) of leaders -- Maccoby, 2000). Although these categorizations present some interesting and nuanced differences, they all reinforce the inherent attributes of leaders – vision, coping with change, openness, and trust. It does raise the fascinating question of *nature versus nurture.* We believe that managers can be taught the skills required to perform well. We are much less sure about capability building in leaders. [3]

Entrepreneurs: An entrepreneur can be defined as a “person who habitually creates and innovates to build something of recognized value around perceived opportunities” (Burke, 2006). We are focusing in this project on what is often referred to as Corporate Entrepreneurship or the role of the entrepreneur in the medium or large sized corporation. Within this environment, two

[3] Sorcher and Brant (2002), for example “believe that much of leadership talent is hard-wired in people before they reach their early or mid-twenties.” The authors criticize companies for focusing their energies on developing leaders rather than on accurately identifying them in the first place.

phenomena can be explored. First are the characteristics of the personnel who assume an entrepreneurial role inside the firm. Second is the establishment of an "entrepreneurial mindset" (McGrath and MacMillan, 2000) whereby a climate is established conducive to innovative thinking.

The qualities of the corporate entrepreneur are similar to those of his/her start-up cousins – a willingness to accept reasonable risk (although more likely, in this situation, to be social or psychological than financial risk), a proclivity for identifying and creating opportunities, an ability to think beyond the context in which they presently live, the propensity to deal well with ambiguity and to flourish in unstructured environments, and the traits of perseverance and determination (Lumpkin and Dess, 1996, Darling et al., 2007). The corporate entrepreneur often has the luxury of assuming a longer-term orientation on business outcomes.

Thornberry (2006) draws an important distinction between *activists* and *catalysts* in the entrepreneurial process. Activists are similar to our traditional view of the entrepreneur. They take a driver- or owner orientation to value creation. They see themselves as directly responsible for identifying, developing and capturing new business opportunities. They can focus their entrepreneurial energy either externally or internally. External focus is most often seen in personnel who have direct access to and impact on the market. These folks are frequently found in sales and marketing positions, new product development, corporate venturing and business development functions. Activists can also focus their energy internally on processes, procedures, operations and asset management with the aim of providing internal improvements that lead to external differentiation. Such internally focused activists are often found in operational jobs like manufacturing, engineering, operations, human resources and finance.

Catalysts are not ordinarily the direct drivers of opportunity. Rather, they help set up, or induce, conditions within the organization that allow innovative opportunities to be consistently pursued. As such, they can be thought of as establishing the cultural values of the "entrepreneurial mindset." Again, catalysts can be either internally or externally focused. Those that are internally focused generally take an entrepreneurial leadership approach within their own business unit or department. Externally focused catalysts tend to have a wider breath and scope of responsibility within the organization (i.e., Board members, very senior executives), and focus on the enterprise as a whole rather than on specific business units or opportunities.

Such observations provide an appropriate bridge to the institutional conditions needed to encourage entrepreneurial action. This requires attention to organizational structure, controls, human resource management and culture. Structural adjustments include limiting the layers of authority and the number of decision makers, expanding the span of individual control, allowing ideas to surface at lower levels of the organization and encouraging informal relationships (Holt, Rutherford, and Clohessy, 2007). Such approaches work best when tight controls on current business activities are blended with flexibility on innovative pursuits. Metrics would include strategic as well as financial measures (e.g., the balanced scorecard – Kaplan and Norton, 1992) while cultural emphasis would be on the future rather than the past (Dess, Ireland, Zahra, Floyd, Janney, and Lane, 2003).

Time and resources need to be found for entrepreneurial initiatives while the risk of being entrepreneurial should be minimized for the employee. It must be recognized that creating an entrepreneurial orientation is likely to lead to conflict between the "old" (business as usual) and the "new" (search for change). More frequent and effective communication is therefore required at all levels of the institutional hierarchy. Particular emphasis should be placed on shared knowledge (regarding technology, markets, etc.) with the aim of engendering a spirit of openness and trust (Ireland, Kuratko, and Morris, 2006). Note that the extent of the challenge to create an entrepreneurial setting depends on the type of corporate entrepreneurship sought (Dess et al., 2003). We can think of a continuum that starts with "sustained regeneration" (continuous innovation originating from current technology), passes through "organizational rejuvenation" (improving the ability to execute strategies) and "strategic renewal" (changing how we compete by selecting new products and/or markets), and ends with "domain redefinition" (changing the competitive playing field by creating a new product/market position).

Summary*:* How independent are the roles of managers, leaders and entrepreneurs? We have argued – maybe too simplistically – that managers mainly take care of the present and near future, leaders are concerned with the medium and longer term future, while entrepreneurs seek to forge the profile of these futures through imaginative process and product innovation. Their dominant characteristics therefore conform to these classifications – managers being structured and risk averse, leaders more visionary and change oriented, with entrepreneurs opportunity driven and independent. We believe each role is essential to the success of the organization. The question then becomes how to get the balance between the roles correct while understanding the contextual variables (e.g., market forces) that call for balance adjustments. The earlier statement that "most corporations today are over-managed and under-led" may not be an indictment of managers but a critical comment on the need for a variety of talent to resolve ever-shifting commercial challenges.

One final point – a close reading of the literature suggests leaders fulfill a facilitation role for the internal and external "activists" by providing an environment in which the entrepreneurial spirit can flourish. On the other hand managers, in their pursuit of highly focused outcomes from current affairs, may well inhibit both leadership and entrepreneurial tendencies. If the result is conflict between these archetypes, how best can it be leveraged for competitive advantage?

CONCEPTUAL FRAMEWORK

How can the collective activities of managers, entrepreneurs and leaders best sustain innovation within corporations around the globe? To help classify innovation, we have adopted a typology of commercial development projects devised by Wheelwright and Clark (2003). Each of their three project types requires a unique combination of development resources and management styles.

Derivative projects range from cost-reduced versions of existing products to add-ons or enhancements for an existing production process. Development work on derivative projects typically falls into three areas: incremental product changes, say, new packaging or a new feature, with little or no manufacturing process change; incremental process changes, like a lower cost manufacturing process, improved reliability, or a minor change in materials used, with little or no product change; or incremental changes on both dimensions. Because design changes are usually minor, incremental projects typically are clearly bounded and require substantially fewer development resources than the other categories. Also because derivative projects are completed in a few months, minimal changes are required in ongoing management procedures.[4]

Breakthrough projects are at the other end of the development spectrum because they involve significant changes to existing products and processes. Successful breakthrough projects establish core products and processes that differ fundamentally from previous generations. They create a whole new product category that can define a new market. Because breakthrough products often incorporate revolutionary new technologies or materials, they usually require revolutionary manufacturing and management processes. Executives need to give development teams considerable latitude in designing new processes, rather than force them to work with existing plant and equipment, operating techniques, or supplier networks.

Platform projects are in the middle of the development spectrum and are harder to define. They entail more product and/or process changes than derivatives, but they don't introduce the untried new technologies or materials that breakthrough products do. Well-planned and well-executed platform products typically offer fundamental improvements in cost, quality and performance over preceding generations. Most importantly, platforms represent a significantly better system solution for the customer. Because of the extent of changes involved, successful platforms require considerable upfront planning and the involvement of not only engineering but the interaction of marketing, manufacturing, senior management and others.

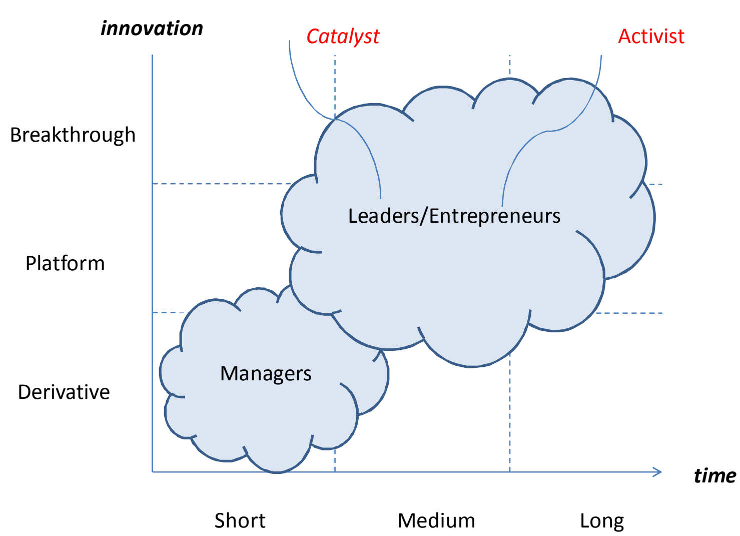
Companies target new platforms to initially meet the needs of a core group of customers but design them for easy modification into derivatives through the addition, substitution, or removal of features. Well-designed platforms also provide a smooth migration path between product generations so neither the customer nor the distribution channel is greatly disrupted. Platforms offer considerable competitive leverage and the potential to increase market penetration, yet many companies systematically under-invest in them. The reasons vary, but the most common is that management lack an awareness of the strategic value of platforms and fail to create well-thought out platform projects (Wheelwright and Clark, 2003). Another way of viewing this is

[4] Although the Wheelwright and Clark typology refers only to products and the associated production processes, the derivative – platform – breakthrough classification appears just as relevant for service activities.

that managers over-emphasize the importance of derivatives as they strive to optimize the efficiency of current practices. But often these products fail because small improvements are not enough to alter customers' entrenched buying habits (Goldenberg, Horowitz, Levav, and Mazursky, 2003). Increased leadership vision is required to envisage the potential of platform and breakthrough projects and to facilitate the entrepreneurial environment in which they can be pursued. Although the desired mix of projects will vary by industry type and market condition, an allocation of development resources of about 50% platform, 20% derivative and 10% breakthrough projects and partnerships has been recommended for technology-based companies (Wheelwright and Clark, 2003). This is not the allocation in most organizations where in excess of 50% investment is earmarked for derivative improvements. In an excellent recent article, Laurie, Doz and Sheer (2006) report that CEO's at progressive companies like Boston Scientific and Medtronic spend at least half of their time in the search for new platform growth.

It may be helpful to diagrammatically show our thinking so far. If we represent "*innovation type*" and "*time*" on the axes, we can suggest the differential roles of managers, leaders and entrepreneurs in pursuing innovation strategies over varying time horizons. It is postulated that leaders play more of a catalyst role in the identification of platform and breakthrough projects, creating the climate for the entrepreneur to flourish as an activist.

Figure 2: Archetype Roles in Innovation



Two further dimensions warrant consideration as we operationalize the concept of the *ambidextrous organization.* The first is *organizational structure* – that is, the extent to which personnel seek stability in their roles and responsibilities. The manager, in order to efficiently manage current activities, favors well-defined roles and responsibilities. Leaders and entrepreneurs, in their assumed function as change agents, prefer fluid and informal structures. Such logic is linked to the notion of *perceived risk*. Mangers, driven by short term objectives and clear metrics, tend to be risk averse. Entrepreneurs, in their obsessive search for opportunities, strongly reflect risk takers. Leaders, it would seem, need to take a middle course. They need to show, through vision and future orientation, a propensity for risk. At the same time, they must carefully search for a balanced portfolio of innovation opportunities. This requires performance of substantial due diligence with a consequent aim of risk minimization. These traits might be represented as follows:

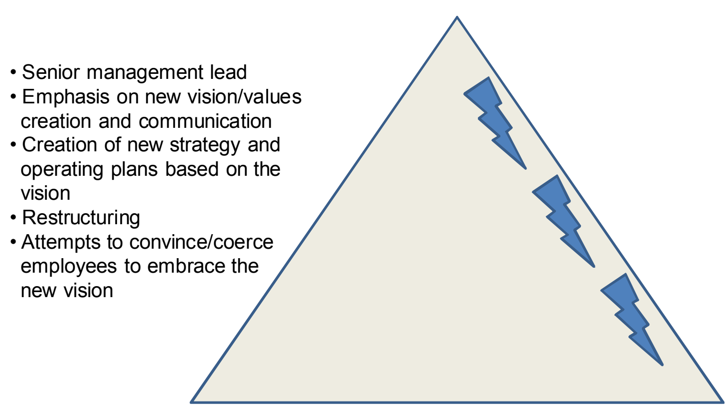
Improve Efficiency → *Engender/Facilitate Change* → *Create Opportunities; Activate Change*

←——————————————————————————→

Managers	**Leaders**	**Entrepreneurs**
Risk Averse	*Risk Taker + Risk Minimizer*	*Risk Taker*

One final point is worth making. Most of the literature on change management suggests that change should start at the top and cascade down to lower levels (see below):

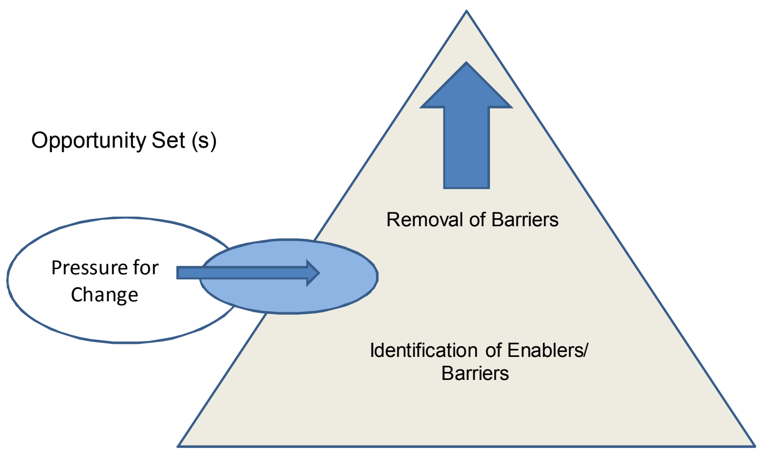
Top-Down Change



Source: Thornberry (2006)

Such changes can take a great deal of time as they work slowly down through the often resistant corporate ranks. Moreover, top level jobs are inherently insecure so that it is not uncommon to see many changes start at the top, but peter out when senior management is changed.

Opportunity-Induced Change



Source; Thornberry, 2006

An alternative approach is to stimulate opportunity-induced change where leaders can come from any level of the organization. Corporations that do a better-than-average job of identifying leaders put an emphasis, for example, on creating challenging opportunities for relatively young employees (see Kotter, 2001). This entrepreneurial leadership "from the middle" is often successful because actions are focused on change related to a specific opportunity. These changes are generally narrower and more quickly achieved than an overall company-change effort. Because we believe that the continuous and disciplined drive for new business opportunities can originate throughout the company, project participants in our study include not only senior management but also those designated as high potential employees.

We have now identified the dimensions that we feel important in directing the *ambidextrous organization* – executive archetypes (manager, entrepreneur, leader), types of innovation (derivative, platform, breakthrough), time period (short, medium, long), preferred organizational structure (stable, flexible), and individual risk profiles (averse, taker, minimizer). Additionally, the significance of these variables will be impacted by the moderating influence of business conditions (or "zeitgeist") facing a decision maker at any point in time. It appears that context matters. Mayo and Nohria (2005) found that the macro-contextual factors of government intervention, global events, demographics, social mores, technology and labor are especially influential in shaping the landscape for business. They noted, for instance, that "entrepreneurs were uniquely skilled at sensing emerging opportunities or the potential of nascent technologies and through perseverance and determination build successful new enterprises." To these we would add the variables of both corporate and national culture. At a very broad level companies can be categorized, on the one hand, as those where sustainability and survival are the key drivers (that is, profit is a means to the end of satisfying the disparate needs of a wide stakeholder base), and on the other, where aggressive growth is the principal target (driven by the needs of a much narrower owner/investor public). Our experience suggests that there is a greater propensity for companies in Europe to emphasize sustainability and social responsibility while US firms more often focus on rapid market and stock price growth. There is some limited secondary support for this notion with Europeans, on average, less interested than Americans in becoming entrepreneurs (Blanchflower and Oswald, 1998, *Global Entrepreneurship Monitor,* 2008) and showing a stronger preference for being an employee with a regular fixed income, a stable job and less risk (van Houdt, 2005). We have similar observations regarding the ownership status of the firm. Differences in strategic and operational style exist between family-owned businesses and publicly owned corporations. The family owned businesses – perhaps more prevalent in Europe – lean more towards sustainability and life style as a *modus operandi.* While not eschewing growth, they do so with a strong emphasis on the welfare of their employees and local community. The public firm sees growth much more as its *raison d'être*. It is not indifferent to social concern but is much more driven by shareholder considerations of profit, contribution, cash flow and EBITDA.

A final contextual variable that can substantially impact the focus of innovation activity, and therefore the nature of personnel talent sought, is the industry life cycle (see Wheelwright and Clark, 2003). In the early stages of growth, innovative, dynamic companies gain market position with products that have dramatically superior performance on a small number of key dimensions. These companies employ a successful breakthrough-platform strategy, giving full reign to the entrepreneurial spirit. But as the industry develops and the opportunity for breakthrough products decreases – often because the technology is shared more broadly – competitors try to satisfy increasingly sophisticated customers by rapidly making incremental improvements in existing products. Here the sound manager comes into his/her own, adopting a strategy based on derivative products and employing disciplined resource allocation and execution. [5]

RESEARCH DESIGN AND METHODOLOGY

This Pilot Study was conducted over a 9 month period during 2008. Our interest lay in starting to understand and measure the role of the manager, entrepreneur and leader (MEL) in guiding a company's fortunes. The results have been used to design a large scale global project aimed at

[5] In presenting the leader as a change agent, we have emphasized his/her role as a facilitator of an entrepreneurial environment in which new growth platforms and market spaces can emerge. Mayo and Nohria (2005) have also depicted leaders as those that "confront change and identify latent potential in businesses that others consider stagnant, mature, declining, or moribund."

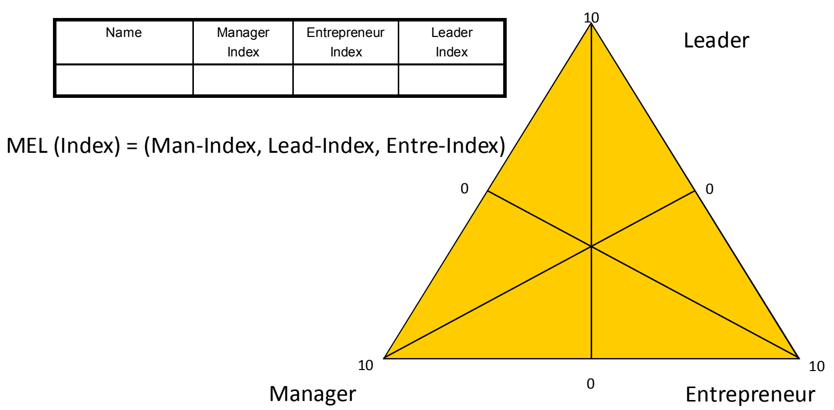
linking a company's MEL capabilities with growth through continuous innovation. Data will be collected in the second half of 2009 with a final report available by June 2010.

Secondary/Literature Search*:* Despite a thorough examination of the academic and business literature, we are surprised at the paucity of research available on the type and balance of executive skills required for sustained commercial development. We believe our study will add to this limited knowledge.

MEL Index Pilot Survey: A specific goal was to develop and validate a measurement instrument (the MEL-Index) that allows an organization to assess the managerial, leadership and entrepreneurial capabilities of its key personnel. Our initial idea was to use a triangle to visually represent executive perceptions of individual and organizational capabilities on the three archetypes.

The Triangle

Manager - Entrepreneur - Leader



A three-dimensional index was used by interviewees to indicate their own ratings and their ratings of the organization on management, leadership and entrepreneurship abilities on zero to ten scales.[6] The triangle simply acted as a clear and attractive way of representing MEL scores while – at least at this stage – no inferences were made about interactions between the three archetypes. In addition, we collected considerable open-ended information from some of the participants. This included:

---

[6] The actual question was: "Please take a look at the triangle. We would like you to rank yourself on the *manager, entrepreneur, and leader* dimensions. On each of the dimensions allocate yourself a score between 0 and 10, with 0 equaling no capabilities and 10 indicating truly outstanding skills." The rating was repeated for the company as a whole.

- A description and self-evaluation of the participant's current job (likes/dislikes; time allocation, etc.).
- Perceptions of the generic roles and responsibilities of managers, leaders and entrepreneurs as well as verbatim comments on their own and their company's capabilities on these archetypes.
- Observations on company status/performance (growth, profitability, stage of industry life cycle, innovativeness, etc.)

Pilot Sample: Given that this phase of the study was highly exploratory we took a convenience based approach to sample selection. That is, we worked with companies where we had strong personal contacts and were able to gain relatively smooth access to senior executives. We sought, wherever possible, to collect information from two levels within the organization: a) senior management, including Board members, senior functional officers and regional managers, and b) "high potential" personnel, who have positions such as product managers, functional specialist or corporate support. A description of the project was sent to each participant prior to the interview. The face-to-face interviews, each lasting between 30 and 60 minutes, were conducted inside the following companies:

Large, Multinational Corporations:

1) European semiconductor manufacturer (Rev: €4b) – 2 senior executives, 1 high potential
2) European computer manufacturer (Rev: €7b) – 1 senior executive, 2 high potentials
3) US construction company (Rev: $6b) – 3 senior executives

Briefer interviews, mainly involving administration and explanation of the MEL ratings, were carried out as follows:

Small and Medium Sized Corporations (SMEs):

4) German automotive supplier (Rev: €450m) – 18 senior executives, 20 high potentials
5) German fiber composite company (Rev: €70m) – 5 senior executives, 11 high potentials

Although the sample size was small, we found that all participants were highly involved in the study, were very willing to openly discuss the issues, and were keen to be informed of the results on completion of the project. As one respondent noted, "This is a fascinating topic particularly as it applies to today's fast moving business climate."

RESEARCH FINDINGS

Case 1: European Semiconductor Manufacturer (IT)

IT is a European semiconductor company with annual sales of about €4b which regularly flirts between positive and negative net income figures. It is a world leader in certain "logic" markets and must now make a strategic decision on whether to be a strong niche player or a mainstream supplier. To date it has tended to get caught in the middle.

All participants saw the company as "entrepreneurially underdeveloped." As one VP noted:

"*Entrepreneurship is one of the company's biggest weaknesses. We invest too much into mature businesses and are too keen to take the easy opportunities"*

Ratings of the organization reinforced this perceived weakness on the Entrepreneur dimension (average 4.5), were stronger on the Manger axis (7.5) and appeared modest on the Leader score (5.5). This limited evidence suggests a gulf at IT between efficiently managing the present and effectively preparing for the future. Interestingly, the interviewees – thought to be amongst the "best and brightest" in the firm – had MEL self-scores that reversed their rankings for the corporation. They saw themselves as being managerially weaker than the company norm (5.5), entrepreneurially stronger (7.5), and similar in leadership ability (6.0). Despite their relatively weak management scores, all chose to put personal development effort into improving leadership and entrepreneurial capabilities. If IT can manage to retain and recruit this type of talent, then the future of the company may prove more promising as it better matches current and future needs.

Case 2: European Computer Manufacturer (F)

F is currently a mid-market player with sales of about €7b and wafer-thin profits of about €150m. In reality, it is more of a regional than global competitor and faces the classical challenge of how to confront the "big boys." As with many of its rivals, it is intent to move beyond box sales into value added activities such as network configurations and solutions.

Both of the high potential participants recognized the senior executive interviewed (Head of the Storage BU) as the company's leading entrepreneur. He was described as follows:

"He is able to win people over. He has a combination of charisma and being a "pain in the backside" (he just doesn't let go). He has a strong belief in his own actions which turned out to be right"

The MEL ratings at both the individual and institutional level were comparable to those found at IT. F is considered to be strong managerially (7.5), weak as an entrepreneurial corporation (4), with improvements required in leadership (5.5). The current business context suggests the need for a better balance of capabilities:

"*To date operational efficiency has been the key. In such a climate it is hard to take a risk and do something new and different. But we now recognize that there is an innovation problem*"

The senior executive believes he has strong leadership (8) and entrepreneurial (9) skills, but modest managerial talents (5). Significantly, he sees little need to improve his management ability as he relies on capable management performance from members of his team. He argues strongly for evangelizing entrepreneurship within the organization and thinks that entrepreneurial skills can be taught through training.

Case 3: US Mechanical and Electrical Construction Company (E)

E is a Fortune 500 company with $6b in annual revenues and EBIT of about $300m. It is a leader in mechanical and electrical construction, energy infrastructure, and end-to-end facilities services. It operates 76 companies across 170 locations – mainly in the US -- with much of its growth coming from an aggressive acquisitions program. It benefits enormously from a charismatic CEO and a visionary, yet tough, COO. They have created what appears to be a truly entrepreneurial culture. A critical question has now become "as the company grows towards $10b can this entrepreneurial spirit be maintained?"

Descriptions of the entrepreneur's role where similar to those of the previous companies – always looking for ways to exploit opportunities, tolerance of risk, understanding that nobody can do it all alone, passionate commitment, etc. Where E differed, however, was in their appreciation of the support required to create and nourish the entrepreneurial process:

"We must have the spirit to be able to explore opportunities. Our model allows this to happen by removing control from the Centre and allowing decisions to be made in the local companies. We are responsive to new ideas almost to a fault. This makes the folks in the field feel that they own the company"

All interviewees (COO, CFO, V.P Services) described the company as very entrepreneurial (9) with much of the stimulus coming from the leadership of the CEO. Leadership was seen as fairly strong (7.5) while management scores lagged (5.5). At the personal level, the COO saw himself as a compelling leader (9.5), a sound entrepreneur (7 – this score was not higher as he believed himself to be a facilitator for entrepreneurs rather than an entrepreneur himself), and a modest manager (5.5). He indicated his future development intentions:

"I intend to learn to be less quick to judgment. I have always had a low tolerance for non-leaders. I must appreciate the need for balance and use, for example, the CFO as a counterweight"

It is instructive to observe the differences between E and the two previous struggling companies. In E's case adjusting to change and generating entrepreneurial ideas is not a problem. Their main concern is establishing managerial discipline in a fast growing organization. All interviewees implied that they were beginning to "suffer" form the leanness of the company as rapid growth started to stretch the small senior management team. The search for balance works in all directions!

Case 4: German Automotive Supplier (M)

Company M produces various plastic components for automobiles and flexible moldings for a wide variety of applications in other industries. It is over 275 years old and still a privately owned company now in its 8th generation of family management. They employ about 4,500 employees, have revenue of approximately €400m, and do business in Europe, North and South America and Asia.

The interview process was rather different in this example. Here the interviews were embedded into a management development program including both middle and senior executives. This allowed a larger sample size to be interviewed (20 middle managers; 18 senior executives, including the CEO and CFO and 4 other members of the executive board) although time was only available to collect ranking data on perceived manager, entrepreneur and leader capabilities (i.e., application of the triangle). In order to provide richer data and to test for the likelihood of bias in self-reports, senior executives assessed their own and their peers' MEL capabilities, while the middle managers, in addition to evaluating themselves and their peers, rated the MEL abilities of each of the top management team. Aggregated findings show:

Figure 6: Peer and Self-Evaluation: Senior Executives (n=18)

Name	Manager Index	Entrepreneur Index	Leader Index
TOP-Peer	7,2	5,4	6,4
TOP-Self Avg	7,8	5,3	7,5

MEL-(TOP-Peer) = (7,5,6)
MEL-(TOP-Self) = (8,5,8)

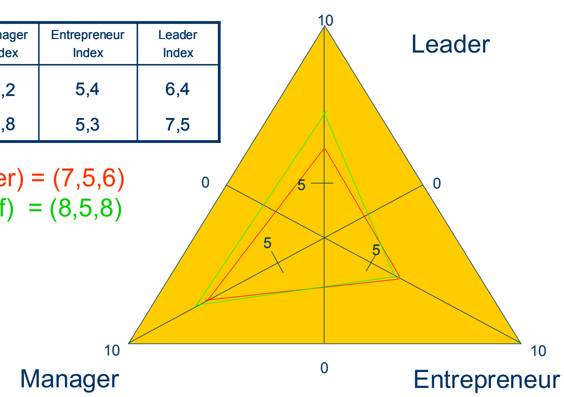
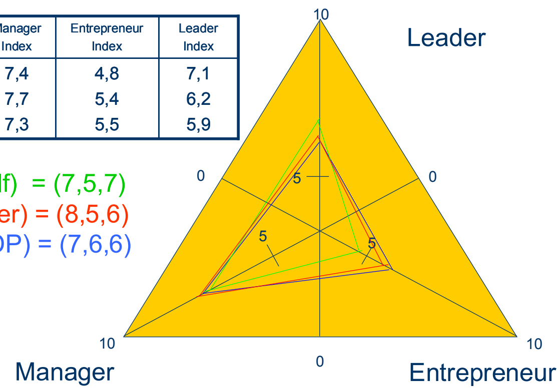


Figure 7: Evaluation of Executive Board by themselves (n=6), their peers and by Middle Management (n=20)

Name	Manager Index	Entrepreneur Index	Leader Index
Board Self Avg	7,4	4,8	7,1
Board Peer Avg	7,7	5,4	6,2
Board MDP Part.	7,3	5,5	5,9

MEL (Board Self) = (7,5,7)
MEL (Board Peer) = (8,5,6)
MEL (Board MDP) = (7,6,6)

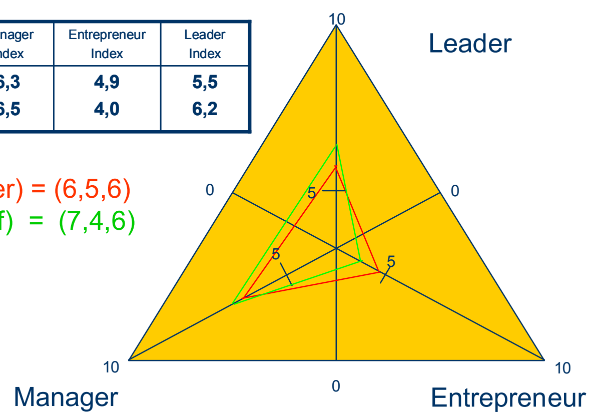


There is considerable consistency between the peer evaluations provided by the Executive Board (and by the senior executive team) and the ratings of this Board by Middle Management. The similarity of scores suggests agreement that the company has, at best, modest leadership and entrepreneurial capabilities in the higher ranks of the organization. Interestingly, the self-ratings repeat this message with both Senior Executives and the Board realizing their lack of entrepreneurial spirit. These findings may come as a result of the sluggish growth of the company in recent years and its struggle to establish strategic clarity and direction in an increasingly competitive environment.

Figure 8: Peer and Self-Evaluation: Middle Management (n=20)

Name	Manager Index	Entrepreneur Index	Leader Index
MDP-Peer	**6,3**	**4,9**	**5,5**
MDP Self Avg	**6,5**	**4,0**	**6,2**

MEL (MDP-Peer) = (6,5,6)
MEL (MDP-Self) = (7,4,6)



The self- and peer-evaluations by Middle Managers confirmed a lack of institutional self-confidence, especially on the entrepreneurial dimension. One benefit of collecting the rating data during a management development program was that it allowed for a “real time” debriefing on the results. Much of the subsequent discussion revolved around the lack of leadership and entrepreneurial instincts among Senior Executives. It was felt these weaknesses reflected a lack of future orientation among the top team. This led to intense debate on such questions as “How did we get to where we are now?” and “How can we improve out future orientation as a group?” Having access to the MEL findings facilitated a frank and open discourse between different levels of management, a situation very hard to replicate in the normal course of business.

Case 5: German Fiber Composites Company (A)

A is a technology leader in high-end composites used to serve the aerospace, automobile, marine, energy and paper industries. Founded about 25 years ago and still a family owned company, sales are growing at between 20 – 25% per year. Current revenues are about €70m with sales expected to reach €200m within the next four years. Although moves are being made to make it an international company (sales offices have been opened in Spain, France and the US), it remains – for the present – a very German organization. The company is split into two operating units. The first is the original firm, involved mainly with stable and organic growth in precision carbon fiber and metal tubes for the paper and printing industries. The second is a recent and dynamic start-up, focusing on technology leadership in high-end composites and growing largely through acquisitions. It has now by-passed the older unit in terms of revenue.

Interviews were conducted with 16 senior (including the CEO, who is also the founder) and mid-range executives prior to the commencement of a management development program. MEL self-evaluation ratings were collected from all respondents as well as scores for the two operating companies (T and X). The self-evaluation results are shown below:

Figure 9: Self-Evaluation (T): 7 Middle and 2 Senior Executives

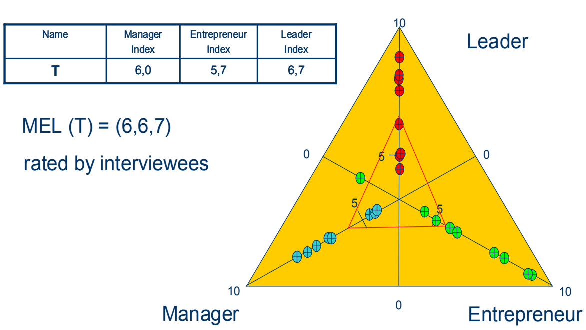
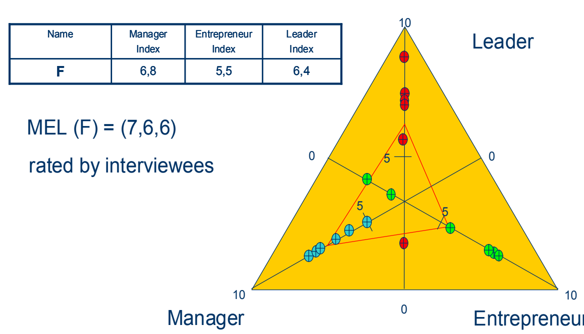


Figure 10: Self-Evaluation (X): 5 Middle and 2 Senior Executives



In this case, we have shown the range of scores from each MEL self-evaluation rather than the mean score. For T -- a well-established company with a reputation for quality in a fairly mature technology market -- the widest range (3 → 9) comes from the entrepreneur ratings. There is some face validity to these scores – 3-4 who see themselves as highly entrepreneurial, a further 3-4 with above average entrepreneurial capabilities, and the final 1-2 not at all entrepreneurial. This appears to be a sound balance but much depends on the interaction between the entrepreneurial measures, and those of managers and leaders. Do the leaders facilitate entrepreneurial action? Do the managers erect barriers to innovative, future-oriented thinking? Our next project will look to assess this MEL interaction effect.

X is an aggressive start-up pursuing state-of-the-art technology and market growth mainly through acquisitions. The MEL result shows a company that is relatively strong on management – much needed to assimilate the acquired companies – but less impressive on both leadership and entrepreneurial capabilities. This led the CEO to question whether there was an appropriate balance of executive skills available to a company so rapidly growing and ambitious. Following an in-class discussion of the ratings, an initiative was launched to identify new personnel with high entrepreneurial and leadership profiles. In part, this will revolve around retaining and motivating strong leaders and entrepreneurs from acquired companies rather than having them leave to find new ventures.

FUTURE RESEARCH DESIGN

Lessons Learned from the Pilot Program: The pilot interviews employed a case based approach to providing experiential and inductive learning. This is a productive methodology when new and complex research topics are tackled that have generated little prior knowledge (see, for example, Bonoma and Kosnik, 1989). The in-depth interviews offered substantial insight into interviewee perceptions on the three archetypes and suggested strong inferences for testing in future, larger scale studies.

Describing the archetypes: Managers – Leaders – Entrepreneurs: When we asked respondents to describe the roles and responsibilities of managers, leaders and entrepreneurs, our findings supported the results from the literature review. The key characteristics that emerged have been broken into tasks performed and personal traits:

<u>Managers</u>: i) Tasks – Comply with deadlines; encourage information flow; stay on the job assigned to them; deal with budgets; determine what needs to be done to complete a job; create and drive processes; make sure that plans come to action; measure progress and provide feedback ii) Traits – Good organizer; thorough and detailed oriented; concise communicator; analytically sound; able to handle complexity; decisive decision maker; somewhat risk averse.

<u>Leaders</u>: i) Tasks – Create vision/strategy/direction for the future; translate strategy into action; show how employees relate to goals; appoint right people to pursue goals; understand the

industry and the business; build an entrepreneurial environment ii) Traits – able to inspire/motivate people; strong communication skills; integrity and trustworthiness; visionary/forward looking; high level of self-belief; charismatic.

Entrepreneur: i) Tasks – Identify market opportunities; forge effective support team; make strong case for scarce resources; sound market understanding; provide technical expertise; calculate and assume risk for venture ii) Traits – never satisfied/always looking for new ways to do things; tolerant of risk; independent thinker; toughness to fight for cause; passion and enthusiasm; a mixture of creativity and pragmatism; takes longer-term perspective.

These descriptions add support to our earlier view that mangers *focus on current complexity*, leaders *focus on change* and entrepreneurs *focus on opportunity.* We will continue to develop these three archetypes as the research continues.

***Measuring the archetypes: The MEL Index*:** We used the concept of a triangle and three 0-10 rating scales to represent the perceived levels of individual and organizational management, leadership and entrepreneurial capability. This generated a three-dimensional measure which we've called the MEL-Index. It provides us with some heuristic findings as well as raising questions on the appropriateness of the measurement methodology and how best to improve the measurement tool. Let's start with some results and the tentative conclusions that can be drawn from them:

-- It appeared possible for an individual to have high levels of two of the dimensions without conflict. The exception was for the "manager" and "entrepreneur" combination which represent very different skill sets (e.g., risk averse vs. risk tolerant). Significantly, this finding was also replicated at the organizational level. This implies that companies find it difficult to efficiently manage the present while, at the same time, creating a climate that encourages future entrepreneurial vision. Note that this can work both ways. Struggling companies find it hard to be enterprising while entrepreneurial firms often grow too quickly to build effective management processes.

-- We were very interested in the extent to which moderating variables such as business context (e.g., stage of industry life cycle) and company type (e.g., public vs. privately owned companies; location of company HQ) would impact ratings scores. Our limited results suggested that successful companies were just as likely to be critical of their balance of capabilities as less successful ones. This underlines the importance of having in-depth discussions complement the MEL ratings to help identify contextual and cultural influences. For example, the need for a greatly improved entrepreneurial spirit has become critical at the European computer manufacturer now that they have resolved their short-term, operational difficulties. On the other hand, the search for enhanced entrepreneurial skills at the German Fiber Composites firm, an apparently flourishing enterprise, results from fast growth coming mainly from acquisition rather than in-house innovation.

-- Although we had only one US-based company in our pilot sample, we wondered – following observation of the MEL scores -- whether Europeans evaluate their skills more conservatively than Americans. Similarly, are employees in family owned companies more likely to be conservative? We must take care in future work to distinguish between rating artifacts (e.g., do Europeans regress more towards the middle of a scale?) and a genuine desire to pursue high levels of MEL capabilities (e.g., do Europeans value entrepreneurial skills as much as Americans? What impact does economic vs. social sustainability have on capabilities sought?).

Improving the MEL-Index*:* Participants found the MEL-Index interesting and easy to use. Although pleased with the face validity of the "triangle," we will explore additional measures to further improve the diagnostic insight of the instrument. These will include the following:

- Do respondents consider the measures for managers, entrepreneurs and leaders to be independent or interdependent? In order to tease this out we will have participants allocate points within a fixed sum. For example: "You have been allocated 100 points. Given your (your company's) management, leadership and entrepreneurial capabilities, how would you allocate these 100 points? What would be the *ideal* allocation?"

- We will, wherever possible, endeavor to collect peer as well as self-evaluations in order to minimize possible response bias.

- We will examine the variance in scores (see, for example, companies T and X) as well as the mean. This will allow us to test for conformity of views and to look for the reasons for variance. This will be especially useful if we are able to collect data from specialized innovation teams within participating companies. This will allow us to ask such questions as, "Is it a good thing to have heterogeneous team members in terms of their MEL-Index score?"

- We will calculate the rating ratios for Manager/Leader (ML), Manager/Entrepreneur (ME), and Leader/Entrepreneur (LE) at both the individual and institutional levels. This analysis will provide further understanding of how closely archetypes are associated and under what circumstances (e.g., company innovation intensity) these associations may be strongest.

As we move to collecting MEL data for the full study, it will be important to correlate the Index scores with a number of descriptive measures. These will include:

Senior executives and high potentials: position, age, time at company, previous employment

Organizations: size, position in industry life cycle, growth, profitability, location, ownership

Of particular importance will be an *innovation index* which identifies the percentage of revenue generated from products and services introduced in the past 3 years. Additionally, we will classify these innovations as derivative, platform or breakthrough.

Program for Extended Study (2009-10)*:* We will continue to measure manager, entrepreneur, and leader capabilities, using the improved MEL Index (see above), while also collecting open-ended comments that help explain the MEL ratings. Because of the continued exploratory nature of the work, combined with the rich insights resulting from personal interviews, all data will be gathered from respondents via face-to-face interactions. As all of the interviews will be carried out by the primary researchers or their trained surrogates, this will provide an opportunity for continuous project improvement.

For pragmatic reasons (influenced primarily by time and funding) we will initially conduct the research in North America and Western Europe. Eventually, we would like to extend this to South-East Asia to provide a more global perspective on the MEL role in sustaining innovation. Our goal, therefore, for the next 12 – 18 months is to identify 10 companies in North America and 10 in Europe. They will be a mix of large (revenue > $1b) and small/medium ($100m - $1b) companies, and of publicly and family owned businesses. In order to provide a focused basis for comparison we will limit selected companies to three major strategic groupings: heavy industry (e.g., automotive); retail and financial services; and medical devices. These groupings were selected as they covered service and product companies as well as new and mature technologies. They also represent industries with which the authors have considerable familiarity. Within each company, interviews will be administered to 5-8 senior executives and 12-15 "high potential" employees. We will ensure that selected subjects form part of one or more in-tact innovation teams so that the impact of team dynamics can also be studied.

The interview process, in most cases, will be conducted on site. However, for two of the companies in the present pilot study the interviews were embedded into a management development program. This proved a very fruitful framework for data collection and analysis as not only were many senior executives and high potentials in attendance but participation in the study stimulated intense post-interview discussion about the outcomes and encouraged early action on the results attained. We will continue this practice of using management development programs where appropriate.

Because we feel that this topic of guiding the *ambidextrous organization* – and specifically the role of managers, entrepreneurs and leaders in undertaking this task – is of such interest and importance to both the academic and business community, we are in the process of creating a web site (www.mel-institute.com) that will invite comments on the study and encourage visitors to suggest how the research initiative can be further expanded and improved. We are hopeful that this work will stimulate other researchers to explore the MEL interface and open an important, new research stream within the field of management studies.

This extended project will bridge the interests of both academics and the business community. Its primary goal is to provide insight and guidelines to senior executives on the leadership actions required to sustain innovation within the global corporation. It should also be of great interest to applied academic scholars, who continue to look for human correlates of success in a rapidly changing business environment. We believe we are at the outset of an exciting research journey.

References

Blanchflower, D., & Oswald, A. 1998. What Makes an Entrepreneur? ***Journal of Labor Economics,*** 16 (1): 26-60.

Bonoma, T. V., and Kosnik, T. J. 1989. Learning by the Case Method in Marketing, ***Harvard Business Review,*** July,

Bosma, N., Jones, K., Autio, E., & Levie, J. 2008. ***Global Entrepreneurship Monitor: 2007 Executive Report***, Babson College and London Business School.

Burke, R. 2006. ***Entrepreneurs Toolkit***, Burke Publishing.

Cohen. A., & Bradford, D. 1991. ***Influence Without Authority***, New York, Wiley.

Darling, J., Gabrielsson, M., & Seristo, H. 2007. Enhancing Contemporary Entrepreneurship: A Focus on Management Leadership, ***European Business Review,*** 19 (1), 4-22.

Dess, G. G., Ireland, R. D., Zahra, S. A., Floyd, S. W., Janney, J. J., & Lane, P. J. Emerging Issues in Corporate Entrepreneurship, ***Journal of Management,*** 29 (3): 351-378.

Garvin, D. A., & Levesque, L. C. 2006. Meeting the Challenge of Corporate Entrepreneurship, ***Harvard Business Review,*** October,

George, J., and Jones, G. 2005. ***Understanding and Managing Organizational Behavior,*** (4th ed.). London: Pearson Prentice Hall.

Goffee, R. & Jones, G. 2000. Why Should Anyone Be Led By You? ***Harvard Business Review,*** September-October, 63-70.

Goldenberg, J., Horowitz, R., Levav, A., & Mazursky, D. 2003. Finding Your Innovation Sweet Spot, ***Harvard Business Review,*** March,

Goleman, D. 1998. What Makes a Leader? ***Harvard Business Review,*** November-December,

Gosling, J., & Mintzberg, H. 2003. The Five Minds of a Manager, ***Harvard Business Review,*** November, 54-63.

Holt, D. T., Rutherford, M. W., & Clohessy, G. R. 2007. Corporate Entrepreneurship: An Empirical Look at Individual Characteristics, Context, and Process, ***Journal of Leadership and Organizational Studies,*** 13 (4): 40-54.

Hornsby, J. S., Kuratko, D. F., & Zahra, S. A. 2002. Middle Managers' Perception of the Internal Environment for Corporate Entrepreneurship: Assessing a Measurement Scale, ***Journal of Business Venturing**,* 17: 253-273.

Van Houdt, F. 2005. ***Entrepreneurial Challenges and Policy Response in the EU***, presentation at the launch of the Global Entrepreneurship Monitor, London.

Ireland, R. D., Kuratko, D. F., & Morris, M. H. 2006. A Health Audit for Corporate Entrepreneurship: Innovation at All Levels: Part 1, ***Journal of Business Strategy**,* 27 (1): 10-17.

Kaplan, R. S., &Norton, D. P. 1992. The Balanced Scorecard: Measures that Drive Performance. ***Harvard Business Review,*** 69 (1): 71-79.

Kotter, J. P. 1990. What Leaders Really Do, ***Harvard Business Review,***

Laurie, D. L., Doz, Y. L., and Sheer, C. P. 2006. Creating New Growth Platforms, ***Harvard Business Review**,* May,

Leslie, K., Loch, M. A., & Schaninger, W. 2006. Managing Your Organization by the Evidence, ***The McKinsey Quarterly**,* (3)

Lumpkin, G. T., & Dess, G. G. 1996. Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance, ***Academy of Management Review**,* 21: 135-172.

Maccoby, M. 2000. Narcissistic Leaders, ***Harvard Business Review**,* January-February,

Martin, R. 2007. How Successful Leaders Think, ***Harvard Business Review**,* June

Mayo, A., & Nohria, N, 2005. Zeitgeist Leadership, ***Harvard Business Review**,* October, 45-60.

McGrath, R. G., and MacMillan, I. 2000. ***The Entrepreneurial Mindset: Strategies for Continuously Creating Opportunity in an Age of Uncertainty***, Boston: Harvard Business School Press.

Mintzberg, H. 1990. The Manager's Job: Folklore and Fact, ***Harvard Business Review**,* March-April,

Morris, M., Schindehutte, M., and LeForge, R. 2004. The Emergence of Entrepreneurial Marketing: Nature and Meaning. In H. Welsch (Ed.), ***Entrepreneurship: The Way Ahead,*** Routledge.

O'Reilly III, C. A., & Tushman, M. L. 2004. The Ambidextrous Organization, ***Harvard Business Review**,* April, 74-81.

Sorcher, M., & Brant, J. 2002. Are You Picking the Right Leaders? ***Harvard Business Review,*** February, Thornberry, Neal. 2006. ***Lead Like an Entrepreneur: Keeping the Entrepreneurial Spirit Alive Within the Corporation.*** New York: McGraw Hill.

Wheelwright, S. C., & Clark, K. B. 2003. Creating Project Plans to Focus Product Development, ***Harvard Business Review,*** September,

Zaleznik, A. 1992. Managers and Leaders: Are They Different? ***Harvard Business Review,*** March-April,

Philip A. Dover is a Faculty Director at Babson Executive Education and an Associate Professor of Marketing at Babson College. He has led custom executive education programs on strategic market management and corporate entrepreneurship topics with major companies around the globe. He also consults and publishes in these areas with particular emphasis on business-to-business and high technology markets.

Udo Dierk is a Professor of Leadership and Entrepreneurship at the International Center for Management Learning in Paderborn, Germany. He was previously VP of Management Learning at the Siemens Corporate University. He teaches and consults extensively on organizational development issues and is an acknowledged expert on business-driven action learning. His research interests include executive pedagogy where he is on the editorial board of the *Academy of Management Learning and Education.*