Session No. A403

From Classroom To Board Room: Are Students Prepared?

Dr. Anthony Veltri
Associate Professor
Environmental, Safety and Health Sciences
Oregon State University

Introduction

Comprehending how private and public sector firms achieve competitiveness and unfold is a major problem that safety, health and environmental students should expect to encounter in their initial job. An incomplete understanding of this fundamental organizational requirement will inevitably hold back student career aspirations. Students should be aware of that working in today's firms requires a crystal clear understanding of the way senior-level executives desire to have their organizations compete and unfold. Previously, students who wanted to better understand this requirement have had to satisfy themselves with fragmented and piecemeal models. As a result, newly placed students may find it extremely difficult to integrate their strategic and technical ideas with other organizational specialists (*e.g., finance, managerial specialists, design and process engineers*) who will require students to make an organizational logic to their practice.

One-way for students to overcome this difficulty is to be aware of the newly developed organizational models. Over the past three decades, three models on how a firm can unfold have been advanced: industrial organization (IO), the resource- based view of the firm, and Schumpeterian economics. The (IO) position is that the environment determines how the organization will unfold and compete. The resource-based view, an internal perspective, is that competitiveness is achieved through protecting and productively using organizational resources. The Schumpeterian perspective, which has both internal and external elements, is that competitiveness is a function of firm innovation of internal resources and external reaction. This paper will review only the resource-bases view; chiefly because research on the other views are based on decades of theoretical and empirical research; whereas the resource-based view is new, less developed and fits best with the strategies of the modern environment, safety and health movement. The resource-based view of the firm contends that the firm's resources are the foundation for achieving competitive advantage (Hart 1995). Resources of the firm can be classified as the firm's reputation (*history & vision*), personnel (*competencies & capabilities*), physical (*property, structures, equipment & materials*), efficacy (*technical efficiency and effectiveness of processes, services, technologies, information systems*), and financial types controlled by the firm that have value, are rare, are difficult to imitate, and have few substitutes (Barney 1991). For students, the ability to analyze a firm's failures to use resources productively and protect a firm's resources can itself be a source of competitive advantage. The case for resource protection is grounded upon two business contentions: first, resources provide the guidance for exploiting internal strengths, resolving internal problems and neutralizing external threats. Therefore, for competitiveness to be gained from resources RISKS (i.e., potential harm),

DANGERS (vulnerability to sources of harm), and LOSSES (i.e., actual harm sustained) to which a firm's resources might be subjected must be effectively counteracted. The effective characterization of existing and potential risk, danger and loss problems affecting a firm's resources is becoming an increasingly important capability for students to possess.

In most firms, safety, health and environmental strategy is looked at as a non-business issue, left out of the firms competitive planning process and exempt from senior-level executive's expectation that this function manage it's internal and external affairs strategically. However, lately, there has been a resurgence of interest by senior-level executives in the role that a new-fashioned safety, health and environmental strategy can play in contributing to the firm's competitive performance. This new interest is being driven primarily at both external and internal financial levels. At the external level, the growing understanding of the competitive benefits derived from a well formulated safety, health and environmental corporate strategy has led to the construction of stock indexes (Dow Jones Sustainability Group Index 1999) and (Innovest EcoValue 21™ 1999). These indexes are providing institutional and retail investors with a financial and social interpretation of the safety, health and environment, sustainable resource development and eco-efficiency investments and practices of a firm. The external financial community is now viewing safety, health and environmental performance as a proxy for other business performance behaviors, which tend to produce good business performance. At the internal level, formulating safety, health and environmental strategy and its economic link to a firm's competitive strategy is financially appealing. Internal finance specialists are extremely interested strategy that is most likely to contribute to the firm's business fundamentals (*e.g., earning growth, financial strength, resource capability, quality of management*). However, they are reluctant to accept just qualitative results and trailing indicators (*number of inspections, citations; injury/illnesses frequency rates*); they much prefer strategy that presents quantitative results (*cost impact, profitability potential, reduced contingent liability*). Students then can assume that organizational specialists will make investments in safety, health and environmental strategy for the same reasons they make other strategic investments, because they expect them to deliver positive returns and reduce contingent liability. Because organizational specialists will rely on a firm's safety, health and environmental strategy for understanding the intended course of action chosen by a firm in the context of it's response to safety, health and environmental issues, students must be able to step up early in their careers and make available safety, health and environmental strategies which most accurately reflects the reason why investments are made in the first place.

This paper suggests safety, health and environmental strategies for students to consider as they go about mapping out a course of action that unfolds effectively and efficiently.

Framework

The organizing framework for the paper is centered around a set of specific elements of a firm's safety, health and environmental strategy and characterizes four developmental levels (Table 1) for each of these elements. Exhibits 1-3 provide an example of the elements and it's levels of development.

Findings

The findings of the discussions revealed the following four (4) conditions related to safety, health and environmental strategy formulation:

1. Don't know what to do; not getting sufficient information from internal and external stakeholders to formulate a viable strategy

2. No time to develop a viable strategy due to compliance activities.

3. Do only what others in their industry do

4. Make improvements in their environment safety and health performance; management information, performance metrics.

5. Develop and integrated safety, health and environmental strategy into the firms business strategy; make financial sense of safety, health and environmental strategy; deliver increased value to stakeholders.

Table 1

Elements of a Firm's Safety, Health and Environmental Strategy:

1. ***Strategic Plan:*** The manner in which the firm intends on confronting and managing safety, health and environment and sustainable resource development issues.

2. ***Organization Structure****:* The approach used for arranging and implementing safety, health and environment sustainable resource development strategy within the organization structure of the firm.

3. ***Financing Strategy***: The manner in which the firm intends on funding safety, health and environment and sustainable resource development strategy.

Developmental Levels of Safety, Health and Environmental Strategy Within A Firm:

Level 1. (Resistant)	Minimal and reluctant effort extended with a tendency to respond to safety, health and environment issues only after the fact.
Level 2. (Reactive)	Reactive, narrow and predominately technical effort extended with a tendency to be focused on the mechanics of complying with safety, health and environment regulations; strategic posture is determined by prevailing legislation.
Level 3. (Proactive)	Broad technical and strategic management effort extended with a tendency toward accepting and internalizing safety, health and environment issues.
Level 4. (Sustainable)	Extensive and forward looking strategic management, finance and technical effort extended with a tendency to be focused on the competitive value of safety, health and environment practices; point the way for future development by others.

Exhibit 1. Sample of an SHE Elements and Level of Development for Students to Consider

1. Strategic Plan: *The manner in which the firm intends on confronting and managing environment, safety, and health and sustainable resource development issues.*

Level 1: Resistant:

Strategy at this level can be characterized as resistant, i.e., **responding after the fact to safety, health and environment issues, usually falling short of what is necessary for strategically confronting and managing these issues.**

Senior level executives awareness of the strategic level of safety, health and environment issues is limited; they tend to be unconcerned about the strategy formulation process and see their firm's strategy to be driven strictly by mandates authorized by regulatory agencies. Compliance with regulatory standards tends to be considered as an inevitable on-going threat that negatively impacts productivity and erodes competitiveness. There are more pressing demands on the business agenda of the firm than to recognize the safety, health and environment challenge facing the business. No conscious or deliberate efforts to reduce safety, health and environment impacts are made, because the firm does not want to, do not think it needs to, or is not aware of its economic effects.

Since meager consideration and effort is made in the strategy formulation process, a get by with what you can mentality exists, usually resulting in narrow and incremental solutions to safety, health and environment issues. The firm excuses it from taking any remedial action because of financial and technological deficiencies. Even through the firm may not posses a formal strategy; it can nonetheless still be categorized as possessing a safety, health and environment strategy. For example, doing nothing is a strategy in itself, whether it is a deliberate decision or not.

Level 2: Adaptive:

Strategy at this level can be characterized as adaptive, i.e., dependent and driven by a regulatory response to safety, health and environment issues, usually without regard to how these responses strategically fits and contributes to the competitive aspects of the firm.

Senior-level executives tend to be passive and detached to the strategy formulation process and see their firm's safety, health and environment strategy strictly from a legal perspective. Compliance with regulatory standards tends to be considered as an important organizational fringe add-on that is a very small part of each business operating decision. Play by the rules and everything will be all right. Keep the firm out of trouble so it can effectively compete.

Because scanty attempts are made in the strategy formulation process, a strategic intent that describes the firm's long-term safety, health and environment vision is absent. A mission statement exists and is primarily focused on maintaining regulatory compliance and incident reduction. The strategic plan is comprised of a small portfolio of short-term technical-command and control type initiatives principally driven by regulatory compliance issues and incidents that have affected key internal operating units.

Level 3: Active:

Strategy at this level can be characterized as active, i.e., constantly pushing for the detection and correction of current and anticipated safety, health and environment issues, usually with attention to how it strategically fits and contributes to the competitive and regulatory performance standards of the firm. Safety, health and environment improvements are generally permanent and ongoing, but not always fully integrated into the business aspects of the firm.

Senior-level executives tend to promote how a well constructed, financed and integrated safety, health and environment strategy can help in improving operational performance. They look at environment; safety and health issues and regulations not as unnecessary cost burdens; but see them as opportunities to reduce short and long term risk and contingent liability.

Genuine attempts are made in formulating strategy and verifying that it strategically fits with the competitive performance strategy of the firm on an annual basis. The strategic intent is to adapt imaginatively and effectively to safety, health and environment issues and new regulatory agency compliance changes and improve the management of risk and contingent liability, while reducing the outlays associated with accidents/incidents, lawsuits and boycotts. The statement of mission is to prevent the causes of loss producing incidents and to minimize their effects. The strategic plan is comprised of a well-balanced blend of short- and long-term objectives that tend to meet the needs and expectations of key internal organizational clients.

Level 4: Dynamic:

Strategy at this level can be characterized as dynamic, i.e., enhancing economic growth and ESH sustainability. Safety, health and environment issues are considered at the earliest possible stage in the productive life cycle design of products, services, technologies and processes, usually with attention to how it strategically strengthens the firm's business fundamentals (e.g., earnings growth, financial strength and quality of management) and on how it enhances societal expectations for sustainable resource development.

Senior-level executives tend to fashion safety, health and environment needs as a criterion for making business decisions and business needs become a criterion for making safety, health and environment decisions. They understand that solid performance in this area tends to serve as a proxy for other corporate business behaviors, which tend to produce good business performance.

The strategy formulation process is taken seriously and embedded in the overall competitive business strategy of the firm. The strategic intent is to constantly build competencies and capabilities ahead of needs and to lead the firm in its sustainable resource development and use practices. The statement of mission is focused on preparing, protecting and preserving the firm's resources and spotting opportunities for revenue growth in sustainable new products and technologies. Strategic plans tend to have a clear fit with the firm's business objectives, focused on a set of high-leverage developmental and reform initiatives and reforms that are characterized substantively while delivering a unique mix of economic value.

2. Organization Structure: *The approach used for structuring environment, safety, health and sustainable resource development strategy within the organizational structure of the firm.*

Level 1 -Reactive:

The organization structure at this level can be characterized as an unspecified arrangement that is shaped by mandated imperatives from regulatory enforcement agencies. This type of structure tackles single issues as when they arise or when it suits the company in making responses to issues and is organizationally disconnected to the firm's processes. When facing mandated enforcement

actions, companies at this level reluctantly comply, a fix-operate-fix and get by with what you can mentality prevails.

Direction for structuring safety, health and environment compliance efforts tends to be principally provided by external regulatory agencies, insurance carriers and internal committees. Responsibility for structuring activities tends to be assigned to an safety, health and environment coordinator and/or collateral duty specialist with limited authority. Efforts are focused on complying with mandates required by regulatory authorities.

An organizational positioning arrangement is non-existent within the organization chart of the firm.

Level 2 -Adaptive:

The organization structure at this level can be characterized as a functional-staff arrangement that is shaped by regulatory priorities. This type of structure is organizationally connected to only the firm's processes encountering regulatory compliance problems, however it is not organized in a manner that properly structures and assimilates safety, health and environment strategies into existing business structures. When facing existing and new regulatory and/or enforcement actions, companies at this level react by letting only their safety, health and environment staff handle it.

Direction for structuring safety, health and environment compliance efforts tends to be principally provided by internal inspections/incident investigations, corporate wide audits, and needs from core operating staff and external regulatory agency and insurance carriers. Responsibility for structuring safety, health and environment compliance efforts is assigned to a small-centralized group of safety, health and environment specialists positioned and dispersed in the organizations core production areas. Efforts are focused on developing policy, providing technical advice on regulatory compliance matters and controlling exposures to hazards affecting the firm. Emphasis is placed on preparing line levels in understanding the intent and purpose of legislation affecting worker safety and health and the environment and in selecting from legislation those standards that are most applicable to work activities performed under their jurisdiction.

The organizational positioning arrangement is undistinguished and buried within the organizational chart of the firm. The function tends to report to a mid-level operational manager.

Level 3- Active:

The organization structure at this level can be characterized as a line-staff arrangement that is shaped by risks to resource problems affecting the firm, contingent liability and regulatory priorities. This type of structure is organizationally connected to all functions within the firm experiencing risk, danger and loss to the resources that they control. When facing existing and new regulatory and/or enforcement actions, companies at this level bring safety, health and environment, legal and operational staffs together to find cost effective and efficient solutions.

Direction for structuring safety, health and environment strategy tends to be principally driven by the internal needs and expectations of core business unit managers, design and process engineers, and external consultants. Responsibility for structuring strategy is assigned to a moderate sized team of safety, health and environment specialists possessing a wide array of technical competencies and capabilities, with powers to integrate activities vertically and laterally within the

organization. Major attention is focused on risk identification, assessment and control, contingent liability reduction, enhancing regulatory compliance and fostering safety, health and environment responsibility among employees and external suppliers by encouraging their initiative and innovation to support safety, health and environment initiatives.

The organizational positioning arrangement is somewhat distinguished and arranged on the same level as other major producing and servicing functions within the organizational chart of the firm. The function tends to report to a vice-president involved in operations and/or finance.

Level 4- Dynamic:

The organization structure at this level can be characterized as hybrid solutions based business arrangement that is shaped by the competitive performance standards of the firm. This type of structure is organizationally connected to the firm's products, services, technologies and processes contributing to safety, health and environment risk and cost burdens. When facing new major and strict regulations, companies at this level review it's products and processes asking such questions as: what products and processes are causing the most risk and cost burdens? Are the problem products and processes in high enough demand to justify spending resources to re-engineer and modify? Are any of the products and processes, causing safety, health and environment problems, unprofitable enough to eliminate? These companies then determine the cost of controls under different scenarios and conduct risk and economic analysis to find the best solutions. Dynamic companies look at major new regulations in a new light. Instead of viewing them as an unnecessary cost burden, they see them as an opportunity to make production more efficient.

Direction for structuring safety, health and environment strategy tends to be principally driven by the competitive performance strategy of the firm, by internal and external operations research studies, corporate audits, risk and cost assessments, and special task force studies. Responsibility for structuring strategy is assigned to a superimposed multi-level and interdisciplinary team of internal and external safety, health and environment specialists having dual allegiance to a particular safety, health and environment assignment and to their organizational department. These specialists possess a wide array of strategic management and technical competencies and capabilities, with power to extend and structure business management strategies in ways that connect safety, health and environment practices to the firm's business fundamentals. Major attention is focused on determining ways to enhance compliance with requirements authorized by governmental regulatory agencies and insurance carriers, counteract existing and potential risk to resource problems affecting the firm, reduce long-term contingent liabilities, and to lead the organization in activities that sustain the organization and its resources. In addition, these specialists contribute constructively to the shaping of public policy based on sound business and scientific principles. The function constantly reframe safety, health and environment issues into business and technological problems, this results in the firm to cooperate more fully with internal and external networks thereby finding solutions to problems that do not alter technology or production systems to any great extent.

The organizational positioning arrangement is well distinguished, internally and externally structured into the business strategy process of the firm, and reports to a senior-level executive.

3. Financing Strategy: *The manner in which the construction firm finances safety, health and environment strategy.*

Level 1: Reactive:

Strategy and structure for financing the firm's safety, health and environment function at this level can be characterized as an informal-pay as you go arrangement.

Access to financial resources is based solely on correcting violations, such as those granted by regulatory agencies and reducing the outlays associated with injury/illness and environmental incidents. Additional financial resources needed for providing technical day-to-day services are provided when it financially suits the company.

Tools for performing financial and economic analysis of safety, health and environment practices do not exist, because the firm does not want to, does not think it needs to, or is not aware of the potential risk and cost impact of failing to protect and use resources productively.

Level 2: Adaptive:

Strategy for financing the firm's safety, health and environment function at this level can be characterized as a regulatory compliance focused arrangement.

Safety, health and environment investments, such as those undertaken for compliance with regulations, specifically targeted at their industry type, generally do not compete for access to financial resources. However, access to financial resources needed to confront and manage more technical discriminating safety, health and environment issues depends upon the capabilities of safety, health and environment specialists to assemble internal coalitions of support in order to compete for funding. These technical discriminating initiatives tend to have no clear criteria and pattern of funding, thus subjecting them to unpredictable funding outcomes.

Financial tools for performing financial and economic analysis of safety, health and environment practices are considered by senior-level executives to be qualitatively and quantitatively immaterial for business decision-making. Safety, health and environment cost accounting practices focus on aggregating cost data causing safety, health and environment costs to be hidden in general overhead accounts and to be not included throughout the life cycle of the product, service, technology or process responsible for their generation. As a result, integrated and concurrent design engineering decision-making capabilities required for aggressively controlling safety, health and environment costs are limited and incomplete.

Level 3: Active:

Strategy for financing the firm's safety, health and environment function at this level can be characterized as a contingent liability focused arrangement.

Access to financial resources tend to be allocated when safety, health and environment budget requests are intended to improve compliance with regulatory standards, management of risk to resources, and reductions in outlays associated with accidents, environmental incidents, lawsuits and boycotts. The level of funding level tends to be at industry average levels and included into the overall budget of the core business units obtaining the services.

Financial tools for performing financial and economic analysis of safety, health and environment practices are chiefly focused on cost-benefit analysis. Cost are accumulated either through the use of cost accounting systems or through the use of cost finding techniques and reported on a regular basis for management information purposes. Incident costs are charged back to the core business unit that they occurred and incorporated into the budget making process. However, the function is ineffective in profiling the cost and profitability of safety, health and environment issues and integrating cost information into decision-making. This condition results in senior-level executives to look at safety, health and environment issues as non-business issues.

Level 4: Dynamic:

Strategy and structure for financing the firm's safety, health and environment function at this level can be characterized as being strategically opportunistic. This means having sufficient funding for the long-term, while having the financial wherewithal to remain flexible enough to solve new issues and support research and development and other opportunities for innovation that, over time, will lead to significant safety, health and environment performance gains while advancing measurable business goals. Business and safety, health and environment changes are tightly interwoven; changes in business operations affect safety, health and environment and changes in safety, health and environment regulations and issues in turn force product, service, technologies and process logistics.

Access to financial resources and capital is approved for 3 years (typically related to potential business contribution over long and short term) and based on factors and circumstances that are causing the firm to fail in its efforts to protect and use resources productively and conditions/circumstances under which safety, health and environment pays. Senior-level executives see investments in safety, health and environment strategy for the same reasons they make other investments; because they expect them to deliver positive results and/or reduce contingent liability. Senior level financial executives desire safety, health and environment strategy and activities to become financially self-sustaining and contribute measurable to the company competitiveness.
Tools for performing financial and economic analysis of safety, health and environment practices provide information to help stakeholders determine efficiency and effectiveness of the firm's ability to protect and use resources productively and determine the cost of controls under different production scenarios. Safety, health and environment cost accounting/modeling is a fundamental part of the firms integrated financial management system and structured to place an economic value upon specific activities such as compliance, sustainable resource development and due diligence reviews. It provides reliable and timely information on the full cost burdens associated with the firm's products, services, technologies and processes over their productive and economic life cycle.

BIBLIOGRAPHY

"Letters to the Editor - Green and Competitive: Ending the Stalemate," Harvard Business Review, November-December 1995, pages 194-209.

"Perspectives-The Challenge of Going Green," Harvard Business Review, July- August 1994, pages 37-50.

Adler, P.S., McDonald, D. W., and MacDonald, F., "Strategic Management of Technical Functions," *Sloan Management Review,* Winter 1992, pp. 19-37.

Barney, J. (1991). Firm resources and Sustained Competitive Advantage, *Journal of Management*, 17:99-120.

Barney, J., 1991, "Firm Resources and Sustained Competitive Advantage," *Journal of Management,* 17: 99-120.

Brown, K. A., 1996, "Workplace Safety: A Call for Research," *Journal of Operations Research,* 14: 157-171.

Dennis A. Rondinelli and Gyula Vastag, " International Environmental Standards and Corporate Policies: An Integrative
Framework,' California Management Review, Fall 1996. Vol. 39, No. 1, pages 106-122.

Epstein, M. J., Roy, M., "Environmental Management to Improve Corporate Profitability," *Journal of Cost Management,* November-December 1997, pp. 26-34

Forest L. Reinhardt, "Bringing the Environment Down to Earth," Harvard Business Review, July-August 1999, pages 149-157.

George R. Heaton and R. Darryl Banks, "Toward a New Generation of Environmental Technology," Journal of Industrial Ecology, 1997. Vol. 1, No 2, pages 23-32.

Grant, R. M., "The Resource –Based Theory of Competitive Advantage: Implications for Strategy Formulation," *California Management Review,* 33(3): 114-135.

Hart, S.L., 1995, "A natural resource-based view of the firm," *Academy of Management Review,* 20: 986-1014.

Hayes, R.H., Wheelwright, S.C., and Clarke, K.B., *Dynamic Manufacturing*, New York: The Free Press, 1988.

Henriques, I., and Sadorsky, P., "The Relationship Between Environmental Commitment and Managerial Perceptions of Stakeholder Importance," *Academy of Management Journal,* 1999, Vol. 42, No. 1, 87-99.

Hunt, C.B., and Auster, E.R., "Proactive Environmental Management: Avoiding the Toxic Trap," *Sloan Management Review,* Winter 1990, pp. 7-18.

Jasbinder Singh, "Making Business Sense of Environmental Compliance," Sloan Management Review, Spring 2000. Vol. 41, No. 3, pages 91-100.

Jennifer Howard, Jennifer Nash, and John Ehrenfeld, "Standard or Smokescreen? Implementation of a Voluntary Environmental Code," California Management Review, Winter 2000. Vol. 42, No. 2, pages 63-82.

Joan Magretta, “Growth Through Global Sustainability,” An Interview With Monsanto’s CEO, Robert B. Shapiro, Harvard Business Review, January-February 1997, pages 79-88.

John T. Landry, “Environmental Awareness-Greening Made Practical,” Harvard Business Review, Briefings From the Editors, July- August 1997, pages 10-11.

Kimberly O’Neill Packard and Forest Reinhardt, “What Every Executive Needs To Know About Global Warming,” Harvard Business Review, July-August 2000, pages 128-135.

Klassen, R.D., and Whybark, D.C., “The Impact of Environmental Technologies on Manufacturing Performance,” *Academy of Management Journal,* 1999, Vol. 42, No. 6, 599-615.

Maxwell, J., Rothenberg, S., Briscoe, F., and Marcus, A., “Green Schemes: Corporate Environmental Strategies and Their Implementation,” *California Management Review,* 1997 Vol. 39, No. 3, pp. 118-134.

Michael E. Porter and Claas van der Linde, “Green and Competitive: Ending the Stalemate,” Harvard Business Review, September-October 1995, pages 120-134.

Michael E. Porter, “America’s Green Strategy,” An Essay, Scientific American: April 1991, page 168.
Noah Walley and Bradley Whitehead, “It’s Not Easy Being Green,” Harvard Business Review, May-June 1994,
pages 46-50

Porter, M. (1980) *Competitive strategy: Techniques for Analyzing Industries and Competitors* (New York: Free Press).

Roame, N., 1992. Developing environmental management strategies. Business Strategy and the Environment, 1:11-24.

Robert B. Reich, “The New Meaning of Corporate Responsibility,” California Management Review, Winter 1998. Vol. 40, No.2, pages 8-17.

Russo, M. V., and Fouts, P.A., 1997. “A resource-based perspective on corporate environmental performance and profitability,” *Academy of Management Journal,* 40: 534-559.

Shortell, S.M., and Zajac, E., 1990. Perceptual and archival measures of Miles and Snow’s strategic types: A comprehensive assessment of reliability and validity. Academy of Management Journal, 33: 817-832.

Stuart L. Hart and Mark B. Milstein, “Global Sustainability and the Creative Destruction of Industries,” Sloan Management Review, Fall 1999. Vol. 41, No. 1, pages 23-33.

Stuart L. Hart, “Beyond Greening: Strategies for a Sustainable World,” Harvard Business Review, January-February 1997, pages 66-76.

Zahra, S.A., and Pearce, J.A., 1990. Research evidence in the Miles-Snow typology. Journal of Management, 16: 751-769.