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# The interdisciplinary needs of organizations

Interdisciplinary  
needs

## Are new employees adequately equipped?

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### Introduction

The global economy obviously is market-driven. History is replete with stories of automobile companies that produced cars that lacked styling appeal for the consumer; politicians who misinterpreted the true beliefs of their constituents; and national economies that failed to adapt to market changes.

In order to maintain a competitive edge, businesses and governments seek out the most talented individuals available in the job market. These organizations expect to provide additional training in specialty areas that may be unique to their business (Pfeiffer, 1994). Businesses do not, however, expect to train new employees extensively in areas of general expertise within a major industry. For example, a major accounting firm should not have to supply training or schooling to a newly-hired college graduate before the employee sits for the CPA examination.

These examples seem obvious to the reader, but to some degree, colleges and universities frequently are guilty of these oversights. These institutions often neglect to maintain meaningful contact with employers to assess the performance of its graduates, and stay abreast of current and future needs. In today's fast-paced, global environment, a critical problem can be existing in an advanced, multifaceted state before the organization discovers it. Businesses cannot wait years for a university to develop an interdisciplinary curriculum relevant to the pressures that it faces on a regular basis.

### Literature review

Many studies suggest that interdisciplinary research contributes to innovative data analysis and interpretation. For example, Storey (1985) refers to management control as addressed in management and social sciences. The management sciences, embracing subjects such as accounting, operations research, systems analysis and industrial engineering, are yielding to the ideas of behavioral science and social accounting, adding to their viewpoints of formal theory and logic.

Support for more interaction also appears in management, sociology, and psychology. By examining customer service issues in organizational behavior and marketing literature, Bowen (1990) identifies four areas that promote an interdisciplinary perspective: customer-organization exchanges, customer-contact personnel roles, management influences, and climate and cultural mechanisms. Odegaard (1987) suggests that psychology should draw from multiple approaches and disciplines, especially when dealing with "big problems". Gans (1989) notes that sociologists need to draw from other social sciences to learn from and improve future research.

Many of the difficulties in academic thinking stem from overemphasizing specialization and disregarding the interdependence of the various functions that constitute the management process. Success requires the ability to move across what Leavitt (1986) calls the "harsh terrain" that separates these aspects (Bedeian, 1989). Showalter (1992), focusing on research in production/operations management (P/OM) and management information systems (MIS), notes limited interdisciplinary linkages in academia, though strong linkages exist between P/OM and MIS in business. In addition, Fimbel (1994) discusses the role of effective communication as it relates to building a power base within an organization. She calls attention to political implications from employee communications, suggesting that greater awareness of other mind-sets and interests increases interdisciplinary understanding.

#### *Current thinking*

Business management education, training, and development in the USA are in a state of reappraisal. Although the USA is renowned for its specialized business training, the rising importance of international business and communications that crosses functional lines causes the business community to rethink its needs, and prompts business schools to reconsider the thrust of their educational programs.

A 1987 survey of 150 CEOs of companies listed in *Forbes* and *Fortune* magazines stresses the executives' interest in a college-level international business component. The executives suggest that new MBAs in the USA do not possess all the characteristics required by potential employers who are international in scope. Specifically, MBAs do not receive important knowledge tools, because their business schools lack the following:

- (1) a faculty capable of teaching MBAs the current broad range of international issues;
- (2) resources to teach MBAs to adapt to diversity in the workplace;
- (3) incentives for professors to teach practical application of theory and publish works relevant to the real business environment;
- (4) an interdisciplinary approach to teaching that encourages MBAs to work and communicate across functional lines.

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Many undergraduate and MBA programs emphasize specialization of fields, because the curricula that instructors teach are highly specialized. Institutions expect professors to restrict themselves to writing articles within their specific area of knowledge and collaborate with those who share the same interests. Unfortunately, professors write for research publications that are largely ignored by business executives (Dulek and Fielden, 1992).

Lorange (1994), Mason (1992) and Porter *et al.* (1991) cite examples of progressive strategies of prominent US business schools that utilize partnerships with corporations to fund programs and regularly communicate with the business community to stay abreast of their needs. Elliott *et al.* (1994), on the other hand, present a model that criticizes the approach of many US business schools and their reluctance to change. They believe that students are not receiving a proper balance of research, application, and interdisciplinary training. Massy (1994) supports this notion by decrying the rigid system within universities that restricts their ability to change. Increasingly, Americans realize that graduates of our educational systems may not possess the skills and knowledge that match the US business needs. To quote *Fortune Magazine* (July 1991), "Business education has become largely irrelevant to business practice... MBAs lack creativity, people skills, aptitude for teamwork, and the ability to speak with clarity and conciseness – all hallmarks of a good manager."

#### *Possible reasons*

Why have educational institutions continued to produce products that do not meet society's needs? Barker (1990) suggests possible reasons within higher education stemming from the self-perpetuating separation between disciplines. These possible reasons include:

- higher education practices;
- discipline/specialization emphases;
- reward system policies;
- awareness limitations; and
- apprehension effects.

*Higher education practices.* Cultural practices in higher education create a lack of interaction among disciplines. School administrations structure departments by disciplines, instruction, and research. This approach creates a preprogrammed manner of viewing specific issues that contributes to the separation of disciplines (Andrews and Gilbreath, 1993; Barker, 1990; Elliott, 1994; Leonard, 1992).

Businesses and researchers cast a hopeful eye across the Atlantic Ocean looking at the educational practices. Many assume that business schools in the UK and Europe are superior to those in the USA in the following ways:

- (1) In contrast with British and European business schools, US business schools' learning programs are not coordinated with the needs of the business community.
- (2) British and European business schools produce graduates who are more prepared to enter the international business world.
- (3) Higher quality students from the USA are drawn to British and European business schools.
- (4) US business schools over-emphasize research and under-emphasize application in their educational programs. In other words, British and European business schools generate more support from the business community, because they are application-oriented and integrated with the business environment.
- (5) The American Academy of Collegiate Schools of Business (AACSB) accrediting process discourages interdisciplinary interaction and restricts business schools from adapting to the needs of the educational market. Meanwhile, European business schools are free from regulating bodies and better able to respond to market needs (Bickerstaffe, 1994; Porter *et al.*, 1991; Scullion, 1992; Tully, 1988).

The strong business ties to universities in the UK and Europe are not, however, entirely positive. This point is highlighted by business cutbacks caused by the recent recession. For example, INSEAD (European Institute of Business Administration) froze professional salaries in 1993, because of declining executive education revenue from private business sources (*The Economist*, June 4, 1994).

AACSB guidelines provide a level of quality and consistency for member organizations that is absent in the UK and Europe. Certainly, the top business schools there provide a high-quality education. The schools positioned in the lower tiers with strong business partnerships, however, are in danger of becoming company training schools (*The Economist*, June 4, 1994). Despite the criticism of US business schools, it is noteworthy that 77,000 out of 102,000 MBAs annually receive degrees from US institutions. On a worldwide basis, the Graduate Management Admission Test average scores for business students places nine out of the top ten positions. Only INSEAD is ranked among the leaders, and 81 percent of its professors received doctorates in the USA (*The Economist*, June 4, 1994).

*Discipline/specialization emphases.* There are pressures toward more specialization in the educational disciplines. One cost of specialization is a limited focus. Another cost may be the inability of the organization to see the interdisciplinary factors that could promote interdependence among models, structures, processes, theories, and policies developed (Barker, 1990).

Personal perception and absence of common knowledge of other disciplines also limit interaction. Golembiewski (1985) suggests that public sector

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managers may reject private sector innovations because they accept negative stereotypes that such changes would not work within their organizations. Shalinsky (1989), in his article discussing language and polydisciplinary groups, suggests that different disciplines do not share a common language, models and tools for analysis. Some rely on numbers, others rely on words for communication.

*Reward system policies.* The faculty reward system is a drawback to conducting interdisciplinary research in educational institutions. Currently, most promotion and tenure systems encourage junior faculty to write for mainstream publications within their own disciplines and discourage them from collaborating with outside and/or competing areas. Promotion and tenure policies generally encourage younger faculty to conform to the expectations of peers and senior faculty, reinforcing a single discipline research focus (Barker, 1990; Elliott *et al.*, 1994).

*Apprehension effects.* Perhaps fear of the unknown, characterized by lack of understanding of a language, research methodologies, and unfamiliar literature restrict interaction. Individuals working in a specialized area may consider an outsider venturing into their area a threat. Grant funding requirements also may deter a scholar from venturing into a new area by requiring specific discipline prerequisites in order to receive funding (Barker, 1990).

### **Purpose**

The current research was conducted because of the preceding separation issues, and business environment perceptions. The purpose of the study was to provide additional information for developing a new MBA program offering. Questions guiding this research include:

- (1) What are the perceptions of business executives regarding the skills of newly hired recent graduates of business schools?
- (2) What approaches can be developed to help business educators address these issues in the future, particularly as they relate to developing new MBA programs?

### **Methods**

Input from business executives was obtained from personal interviews from executives from 12 companies located in the US Mid-Atlantic region, each of which are included in the *Fortune 1000* listing. The organizations represent a variety of product and service industries including tobacco, engineering, retail, automobile, manufacturing, banking and medical. Participants for the interviews were chosen based on the following criteria: upper level position within the organization, extensive exposure to college graduate new hires, extensive experience in leading and working with all levels within their organizations, and employed by a company with national/international business interactions. The participants, shown in Table I, have characteristics

**Table I.**  
Participant  
characteristics

Industry	Position	Gender	Age	Education	Experience (years)
Medical	Director	Female	45	PhD	20
Service	Director	Female	36	MBA	16
Banking	CFO	Male	60	MBA	30
Tobacco	VP	Male	43	BS	15
Engineering	Chief Project	Male	52	BS plus	30
Manufacturing	Director	Male	53	BS	30
Retail	VP	Male	47	MBA	25
Automobile	President	Male	49	Secondary	30
Manufacturing	Corporate Manager	Female	42	MBA	9
Automobile	Chief Engineer Manager	Male	47	Master's	26
Service	Corporate Manager	Female	46	BS	21
Manufacturing	Director	Female	39	BS	18

of age ranging from 36-60; education from bachelor's to doctorate degrees; experience from 15-30 years within their respective industries; and are representative of both genders.

#### *Data*

Data were gathered through face-to-face, in-depth, structured interviews. Each of the current researchers independently developed possible open-ended interview questions based on the preceding literature. A meeting reduced by consensus the number of questions to eight. Open-ended questions to stimulate responses rather than restrict the range of responses were selected. Two executives not included in the sample were selected for pretesting the resulting interview guide. The researchers clarified the wording of the interview guide based on pilot findings. The questions used during in-depth interviews were:

- (1) What strengths do you note in recently graduated new hires?
- (2) Do you note any deficiencies in their skills or abilities?
- (3) What training do you provide for new hires?
- (4) What role of importance does a team orientation play in your organization? Do your new hires possess teamwork skills?
- (5) Can you think of additional characteristics you would like to see in new hires?
- (6) For your industry, what skills will be needed in five years that are not currently present in new hires?
- (7) What is your perception of the ability of new-hires in their ability to integrate and interrelate with personnel outside their functional area?
- (8) What international/intercultural characteristics are needed in your new hires?

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One of the researchers called each subject to discuss the research orientation and to solicit their participation. Only the general subject area was divulged in order for the participants to focus their comments during the actual interview.

Researchers assured the participants of confidentiality both in the initial telephone calls and at the beginning of the interviews and received permission to record the interviews in writing.

Interviews occurred in the participants' offices with the duration ranging from 25 to 120 minutes. The interviewer asked questions and probed for specificity and clarification. The data from each interview were summarized and the responses for each question examined across all interviewees. To identify major themes in the interviewees' responses, content analysis was conducted. Two of the researchers independently analyzed responses to generate content categories. Inter-rater reliability produced an  $r$  of 0.82. The following section contains the results of the data analysis of the interviewees' responses.

### Results

The results of the interviews combine all industries and gender responses. All interviewees agreed to the interviews. Responses were omitted only in those instances where remarks were of a proprietary nature. A summary of responses is presented below by interview question.

#### *What strengths do you note in recently graduated new hires?*

The most common response given referred to the new-hires' strength of specific technical expertise. The expertise ranged across the areas of computer, accounting, sales, production, and engineering. Only one individual indicated that more technical knowledge was needed. Quantitative skills of these new hires was the strongest skill developed during the course of their education as suggested by all but one of the interviewees.

#### *Do you note any deficiencies in their skills or abilities?*

Eleven of the interviewees indicated deficiencies in the areas of speaking, writing, and interpersonal communication. Two interviewees noted that when new-hires write or speak, the information presented is not audience centered. Most referred to the fact that these people did not understand the "big picture" or strategic nature of the organization when analyzing problems and then making recommendations to decision makers. One interviewee said that new-hires do not gain the trust of others through their verbal and nonverbal behaviors because they transmit messages showing concern only for their own needs. Another interviewee suggested that new-hires should be more open-minded in dealing with other people, who come from different parts of the company with different perspectives and approaches to dealing with situations. Finally, two interviewees adamantly explained that they needed to remind new-

hires that their personal career objectives were tied to improved corporate effectiveness and efficiency. As one interviewee indicated "If these people do a good job the career will take care of itself".

*What training do you provide for new-hires?*

Each interviewee indicated that the company provides an orientation training session to help the new-hire with their job responsibilities and to aid the organization's socialization process. One executive said that the organization releases the employee immediately if the new-hire does not display desirable traits during orientation. All interviewees noted that new-hires receive communication training in the areas of writing, speaking, and customer relations emphasizing the organization's approach. Seven of the interviewees stressed cross-functional and process-driven communication.

One executive believed that some universities were not providing all the basic discipline education needed. Thus, the company retrained many new-hires in the discipline fundamentals for which they were hired.

*What importance does a team orientation play in your organization? Do your new hires possess this characteristic?*

Eight of the interviewees indicated that teams were vital to their organization's success.

A majority saw a need for people to work effectively across functional/discipline lines at some time in their career depending on the task and situation at hand. Two respondents noted some need for teams and two currently saw no present need.

A majority of interviewees indicated that new-hires do not possess a team orientation, but that it was desirable. As one person said during a lengthy interview "we don't have this orientation yet, but we will as we continue to downsize (reduce the number of employees)... those employees left and new hires must develop this team approach". One interviewee stated that an organization-wide effort was under way to train all employees about team concepts and communications among teams. Another noted that his three-year development program focuses on interdisciplinary teams. This executive indicated that both new-hires and career employees lack team communication skills. Ten of the interviewees suggested their organizations exposed most of their new-hires to team concepts, but they needed more exposure in this area prior to assuming their position.

*Can you think of additional characteristics you would like to see in new hires?*

All but one interviewee identified a growing need for stronger communication skills in the areas of speaking, writing and interpersonal/intercultural relations. Ten interviewees indicated that an organizational orientation would increase the perception of new-hires regarding the interdependence among organization



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roles. Four interviewees saw a need for more computer literacy in discipline areas as well as general computer use through word processing and spreadsheet applications. All interviewees saw a need for greater change receptivity to change, with nine interviewees reiterating the need for a stronger team approach to work as organizations decentralize their structure.

*For your industry, what skills will be needed in five years that are not currently present in new hires?*

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Answers to this question were similar to the answers to the preceding question. Three interviewees said that a person with stronger strategic orientation would be necessary... a person who envisions the scope of present and future problems and applies meaningful solutions. Two noted more computer literacy, and two suggested a foreign language would be helpful. Although listed in answers to the previous question, one interviewee strongly identified a need for better interpersonal skills to facilitate the teamwork process.

*What is your perception of new hires regarding their ability to integrate and interrelate with personnel outside their functional area?*

Without exception, each of the interviewees perceives new hires as lacking the ability to understand other points of view, because they view the world from the perspective of their own functional areas. Two of the interviewees noted that after some training and time, these people improved in looking beyond their own discipline and "territory". One interviewee believed this "tunnel-vision" caused problems for both the new hire and each person he or she might contact in the organization. Communication, and idea generation suffer from this myopic viewpoint. One person noted that new hires seem to think that all they have to do is perform their function and not deal with the rest of the organization. Another person indicated that this functional view hinders interpersonal communication.

*What international/intercultural characteristics are needed in your new hires?*

Four interviewees indicated that foreign language skill was needed. Eight of the interviewees saw a need for more cultural sensitivity and adaptation to the variation in problem-solving approaches of other cultures. Four interviewees did not see any application to this question, because most of their companies work as decentralized multinationals. The use of host country nationals automatically removes the language barrier in that country's operations.

In analyzing the responses, we searched for major themes in the content of the interviews indicating skills needed by the new hire. Based on the content analysis five themes emerged:

- (1) communication skills in speaking, writing, and interpersonal relations;
- (2) team oriented skills;
- (3) cross-functional/interdisciplinary perspective;

- (4) change receptivity; and
- (5) inter-cultural awareness.

These five themes are discussed below.

### **Discussion of findings**

#### *Communication skills in speaking, writing, and interpersonal relations*

Communications skills combine to create a desired political image of an employee within an organization. There are limited opportunities for members of organizations to communicate directly. It is, therefore, critical for individuals to cultivate their desired images through these contacts. In addition, the written word often is the only connection a manager has with certain other colleagues and superiors. It is politically important for managers to convey positive personal styles and acumen through their writings (Fimbel, 1994). In addition, there is a positive link between productivity and effective communication within organizations (Clampitt and Downs, 1993).

#### *Team-oriented skills*

Businesses accomplish many of their goals through teamwork (Peters, 1992). Recognizing this fact, colleges and universities such as Columbia, University of Michigan, Wharton, Stanford, and many others teach team concepts (Mason, 1992). Muller *et al.* (1991) encourage American schools to pursue a European strategy for developing team skills. Although European institutions are well known for their teamwork teaching concepts, some US business schools are quite progressive in this area. At the University of Michigan, teams of students work on actual business projects in conjunction with faculty members. Business executives from top US companies contribute time to speak on issues relevant to the projects, much in the European fashion (*Harvard Business Review*, 1992). Similarly, the University of Tennessee offers a three-credit course that focuses on teamwork problem solving using realistic business problems (Mason, 1992).

#### *Cross-functional/interdisciplinary perspective*

The need for interdisciplinary perspectives in business and school curricula is well documented. Storey supports the need for interaction of management and social science variables that may provide for a more adequate theory of management control. Graham (1978) suggests that some complaints against the management sciences stem from a lack of behavioral considerations. Bowen (1990) believes those customer-organization exchanges, customer-contact personnel roles, management influences, and climate and cultural mechanisms contribute to interdisciplinary perspectives. Elliott *et al.* (1994) call attention to the fact that US businesses must recruit managers with broad perspectives who can manage across functional lines. Muller *et al.* (1991) point to a new recommendation from Massachusetts Institute of Technology (MIT) that it

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should stress interdisciplinary methods in its program. Researchers make valuable contributions to fields outside of their specialty by asking questions from a different disciplinary viewpoint. The narrower perspective of “insiders” may prevent them from asking critical questions that could solve a puzzle (Kuiper, 1994).

Isolation of the faculty is a major concern at higher educational institutions (Massy *et al.*, 1994). In these cases, individuals lacked interaction and communication skills. The University of Tennessee teaches students interdisciplinary applications through a year-long case study course that attacks cross-functional problems.

#### *Change receptivity*

Massy *et al.* (1994) state that faculty members who narrowly specialize are reluctant to embrace new theories, discounting possible advancements and leading to inflexibility. Where differences are openly discussed, however, tolerance increases (Barker and Barker, 1994). Mason (1992) attributes much of this resistance to change in higher education and corporate America to complacency, resulting from successes in the 1960s and 1970s. Although organizations recognize the need to manage change, a Gallup poll of 400 *Fortune* 1000 senior executives revealed that 62 percent of executives surveyed are reluctant to deal with change (Marbler, 1994).

#### *Intercultural awareness*

A growing number of multinational companies in the world focus attention on intercultural awareness (Tully, 1988). European businesses and universities are particularly adept in this area. Inter-cultural concerns pervade course work and training programs. Fluency in at least two languages, cross-cultural training, and cultural sensitivity training (Clark and Arbel, 1993) are recommended for those entering the job market.

### **Conclusion and approach for meeting organizational interdisciplinary needs**

The findings of this research document a continuing need to improve the skills of business graduates in the areas of communication, teamwork, and leadership through an understanding of cultural differences and global concerns. In order to produce graduates that meet the demands of the workplace, business schools must be prepared to initiate meaningful change that disrupts the status quo. Faculty members have the obligation and the opportunity to provide exemplary leadership by communicating the benefits of change and dispelling the fears surrounding it. The Executive MBA Program at Virginia Commonwealth University (VCU) illustrates how faculty commitment can lead to a marketable degree program that mirrors the interdisciplinary nature of the business world.

In addition to this research, the university conducted extensive research that suggested an alternative approach to its traditional MBA program. Encouragement from business leaders prompted VCU to offer an MBA Program that integrates accounting, finance, marketing, and management, rather than presenting them as separate subjects. Second, in this program, issues such as communication, system thinking, teamwork, quality, leadership, and global perspective are treated as pervasive elements. Third, the structure of the program fosters an interactive, participative environment that teaches students to address business situations with an interdisciplinary, team approach that closely resembles progressive business practice.

The role of communication cannot be overstated as VCU's faculty and administration overcame their natural inclination to maintain status quo in the development and delivery of instructional material. Executive MBA instructors accept team teaching roles that require them to present material when it will most aid the learning process. For example, if a class studies a business situation that calls for involvement of multiple corporate functional departments, instructors from the corresponding disciplines present possible solutions in rapid succession from their perspectives. In a traditional MBA program, however, the problem would be addressed in single class from the perspective of one instructor within the confines of a single discipline. The intensity of the program allows participants to graduate with marketable business skills in just 18 months, without sacrificing the academic integrity of the university. Successful implementation of an MBA program similar to VCU's Executive MBA advances the broad communication skills of the students and hinges on the ability of the instructors to communicate effectively in the development and delivery phases of the program.

In summary, as academicians, practitioners, business and government executives, it is time to remove the harsh terrain that comes between us if we are to meet the demands of the next millennium. Programs that value interdisciplinary diversity can help accomplish the needs of our organizations. Who knows what we might discover as we continue to communicate and evolve resisting the temptation to reward the status quo?

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