A New “Product Development” Process: William and Mary’s Experiment in MBA Development

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Abstract

For decades, business schools have advocated product development processes that utilize trans-organizational, cross-function teams. Is it time for business schools to apply this model to our own product: MBA graduates? In this paper, we describe the trans-organizational, team-based approach that has transformed product development in many industries. We then discuss whether a comparable model might be applied to business education, its benefits and costs, and the unique characteristics of academic institutions that could complicate this effort. Finally, we present an effort at trans-organizational, team-based design and development currently underway in the Resident MBA Program at the College of William and Mary.

Introduction

Porter and McKibbin’s (1988) influential critique of business education gave voice to widespread dissatisfaction among companies that hire business school graduates. The authors note that through an inward focus on academic interests, business schools had drifted further from industry best practices, and from the critical skills required of the graduates that they hired. Shortly thereafter, the American Association of Collegiate Schools of Business overhauled its accreditation standards to better align with business needs (AACSB 1992). Business schools have been struggling to adjust their curricula to match industry requirements ever since, though not always with great success (Stevens 2000). Indeed, many corporations are questioning the value of the MBA and are bringing more of their education in-house. The proliferation of “corporate universities” since the late 1980s testifies to the demand for pragmatic, relevant business education that is responsive to company needs rather than faculty preferences (Greco 1997; Moore 1997).

Part of the challenge for business educators is the fact that the companies they purportedly serve are themselves evolving so rapidly. In hyper-competitive markets, speed of response has become a key source of competitive advantage. Today’s manager must be flexible, adaptive, able to work effectively in loose cross-functional teams, and equipped for continuous learning. Pearce (1999) notes that “the half-life of knowledge is growing shorter and that well-developed skills in accessing, developing, and managing knowledge are becoming increasingly important in today’s world.” In truth, businesses—and the skills required to manage them—are changing more quickly than the academic institutions charged with preparing tomorrow’s business leaders. Richards-Wilson (2002) summarizes the problem succinctly:

> “In keeping up with the speed of business, business schools face significant challenges, including staff and resource limitations, cultural resistance to change, wariness of technology, stubborn adherence to routine, decentralization, and an overall lack of flexibility resulting from hierarchical decision making or organizational structural impediments.”

Importantly, the businesses that MBA programs serve have faced a similar challenge for decades: organizing for rapid, effective product development in order to address changing customer needs and competitive offerings. The result has been a revolution in product design and development processes, one that business schools might do well to emulate.

In this paper, we describe the trans-organizational, team-based approach that has transformed product development in many industries. We then discuss whether a comparable model might be applied to business education, its benefits and costs, and the unique characteristics of academic institutions that could complicate this effort. Finally, we present an effort at trans-organizational, team-based design and development currently underway in the Resident MBA Program at the College of William and Mary. We discuss the stakeholders that have been involved, the co-design process, our experience thus far, and some of the issues to be faced as we move forward.

New Product Development: Lessons from Other Industries

Almost twenty years ago, Hirotaka Takeuchi and Ikujiro Nonaka (1986) published "The New New Product Development Game" in the *Harvard Business Review.* They depict traditional product development efforts as a "relay race," in which functional contributors at each stage in the product development process—concept development, design, prototype development, production, and sales—do their piece and then "pass the baton" to the next group. This serial approach to product development can produce suboptimal outcomes:

- "Good" products that can't be produced, because the design engineers didn't check with production to make sure they had the raw materials, equipment, or skills to deliver on the product concept.
- Producible products that can't be sold, because concept development, design, and production people never checked with sales to see if anyone *wanted* the product.
- Slow speed to market, because of substantial rework required to move from the "big idea" to something that can be made, and finally to something that anyone would actually buy.
- Products that don't *inspire* customers.

Takeuchi and Nonaka contrast this "relay race" approach to product design and development with a model that employs co-design by cross-functional, multi-level, self-organizing project teams. Membership on the team may transcend organizational boundaries to include customers and suppliers (Herstatt and von Hippel 1992; Handfield and Ragatz 1999). The team owns the entire process, from concept through development, launch, roll-out, support, and product refinement. They are given the latitude and resources required to meet their goals, and often are allowed to work outside the strict rules of the organization. The resulting process accepts built-in instability—moving development targets, loose top management control—in return for adaptability to a rapidly-changing marketplace.

Cross-functional and trans-organizational teams have become the structure of choice for many product development projects (De Moranville, Aurand and Gordon 2000), particularly when significant innovation is required (Olson, Walker and Reukert 1995). Trans-organizational teams are especially appropriate when customers have a significant vested interest in the outcome: for example, when purchases involve large expenditures and custom requirements (Pitta and Franzak 1997). In such circumstances, teams frequently co-opt lead users in the product development process (Herstatt and von Hippel 1992).

Co-design by all vested stakeholders, coupled with ownership from conception through launch and product refinement, offers some very salutary effects:

- *Market responsiveness.* The development team has prompt access to information on changing market conditions.
- *Better and timelier products.* Suppliers, designers, developers, producers, marketers, customers and support functions fully understand one another's needs and capabilities. This accelerates design and development, minimizes "rework," and results in products that meet or exceed market expectations. It may also enhance the capabilities of the producer by providing access to external resources.

- *Institutional learning and continuous improvement.* Because the team spans diverse organizational boundaries, it accumulates more knowledge. This collective wisdom often can be transferred to other product development projects and markets.

- *Happier, more involved customers and suppliers*. Broad participation in the design and development process increases the probability that the right components are chosen, that the right sources of supply are secured, and that the final product will truly suit customers’ needs. Beyond that, shared ownership supports relationships that are more cooperative and less adversarial.

For all of its benefits, adopting team-based product development is costly. It requires reorganization, cooperation among entities that have historically competed for resources, the development of cross-functional skills, overcoming barriers to change, and revised reward structures. Despite these challenges, effective business organizations have been employing this development process—and faculty members have been preaching it in business schools—for a couple of decades now.

A New Product Development Process for Business Education?

The MBA “product” has characteristics that seem ideally suited to trans-organizational, team-based design and development. We are challenged to develop truly innovative products, and our business customers have a significant vested interest in the MBA product we produce: enough to want to help with the development effort. Our “product” is expensive: beyond the costs of salaries, benefits and employee development, our customers are increasingly relying on expensive internships to qualify serious prospects. Further, we need to create a stronger partnership mentality among schools of business, students, alumni, and the business community. Indeed, those partnerships may be a key to survival as our industry continues to mature.

If we practiced what we teach, we would design and develop our own “products”—MBA graduates—with teams comprising all critical constituencies, from raw material suppliers (prospective students) to end consumers (prospective employers). Their involvement would extend from conception (the recruiting/admissions process) through development (curriculum specification and delivery), product launch (placement) and beyond (continuing education and career development).

Despite some noteworthy efforts at cross-disciplinary (if not trans-organizational) MBA “product development,” most business schools still adhere to the “relay race” model. Our “design teams” (program administrators, or more likely disciplinary departments) develop curricula that they suppose the market might want, or that *they* want. They then hand the baton to “production” – the course instructors. They, in turn, grab whatever student “raw material” is available from Admissions, produce a course that they find personally appealing, apply it to the students, and toss the result to “sales” (Career Placement). They face the unhappy task of selling the graduate to prospective employers/customers who haven’t evinced any evidence that they want whatever has been produced. In fact, often they were never asked *what* they wanted, and are relegated to modifying the “product” through in-house educational programs.

Could we do better? A business school that successfully employed cross-functional, trans-organizational teams to develop their students might expect to enjoy analogous benefits to those achieved in other industries:

- *Market responsiveness*: as companies and industries change, their input to student development could change in real time to ensure that MBA graduates arrive on the job with the skills demanded today, and are prepared to develop the skills required tomorrow.

- *Better and timelier products*: graduates who are genuinely prepared to make a contribution on Day One, because the firms that employ them helped prepare them for that task.

- *Institutional learning and continuous improvement*: continuous, real-time assessment by a team comprising all key stakeholders should enhance communication among these constituencies, and thus cut through institutional barriers to effective and positive change.

- *Happier, more involved customers and suppliers*: prospective employers should be happier with a graduate they helped develop, and more motivated to engage in that development since they reap tangible rewards. Students should also be happier and more motivated to excel. Ultimately, the new model should attract better students: ones who know what they’d like to become and are looking for evidence that an MBA program will help them get there.

Any business school that adopted this approach would undoubtedly face the costs and challenges experienced in other industries. These include realigning job expectations, performance criteria, and institutional resources to support and reward individuals for productive participation in a complex team-based process. The peculiarities of academia add unique complications when it comes to one of the key team players: the faculty. Tenure affords considerable protection to those who don’t want to change. Academic culture embraces individuality (and individualists), although this issue has been successfully addressed in many other industries. Business schools have also recognized the importance of teamwork, although the structural and cultural impediments are not trivial.

Perhaps the most significant complication is an inherent conflict between the behaviors that foster institutional teamwork and those that are rewarded in the broader academic marketplace. In most industries, being a successful “team player” only improves one’s professional prospects, whether within the organization or at another company. Not so in academia. In principle, a business school that is committed to team-based co-design could support that effort by measuring and rewarding appropriate teamwork, teaching and service contributions. Even so, the broader academic marketplace primarily values and rewards a different metric: individual scholarship. Faculty asked to sign on to an MBA product development team would have to weigh career tradeoffs between those activities that are rewarded by their institution and those that preserve their own “marketability.” Any business school that chose a team-based approach would have to carefully consider how it addressed individualistic behavior. For example, how should the Dean respond if a competing school woos one of its research “superstars”—one who shuns teamwork—with a substantial salary increase? Should (s)he match the offer? What signals would that send to faculty members who were investing large amounts of time in the team design process?

William and Mary’s Experiment in Trans-Organizational MBA Development

William and Mary is a small state university (about 7,700 undergraduate and graduate students) in Williamsburg, Virginia. Its School of Business is also small, employing approximately 50 full-time faculty members to serve our undergraduate and graduate programs. We admit roughly 100 Resident MBA Program students each year, few enough that we fall “under the radar” of many employers. We make most “Top 50” MBA program rankings, largely on the basis of our reputation for teaching, ratings by our students, and graduate “return on investment” metrics. Like many other business schools, we are challenged by current marketplace realities: the long-term decline in state support of public universities, soft job market, crowded field of competitors, and nationwide decrease in MBA applications.

Efforts to differentiate our program and our students have been driven by a mandate to “bring business to the business school.” More specifically, our challenge is to better align our MBA program with the real needs of the business community, preparing our students to make a positive contribution the first day on the job and accelerating their early career development.

Turning that idea into reality requires a new MBA “product development” process owned by a diverse array of internal and external constituencies: faculty, admissions and placement staff, students, alumni, active and retired executive friends, and employers. That effort has been facilitated (and some impediments have been mitigated) by William and Mary’s unique circumstances. First, our small faculty is not departmentalized, and there is considerable cross-disciplinary collaboration on research, teaching, and outside consulting. The result is an environment with unusually few political, structural, and cultural barriers to cross-functional faculty teamwork. Second, Williamsburg draws a large number of current, recently-retired, and semi-retired executives who want to develop the next generation of business leaders. These “Executive Partners” have assumed important roles as instructors, student mentors, and strategic advisors to the Dean. As the team-based development effort has progressed, they have been increasingly important conduits to the companies that we’d like to involve in the process. Finally, our Board of Sponsors has embraced the new MBA initiative, and has backed it with their expertise, business contacts, and dollars.

Comprehensive curricular and co-curricular changes to the Resident MBA Program will be phased in over the next couple of years. However, the remainder of this paper will focus on one of the first components, to be piloted in the fall of 2004: the “Career Acceleration Module” (CAM). We give an overview of the CAM concept, describe the evolution of one specific CAM (Consumer Brand Marketing), and finally present some lessons learned thus far.

Career Acceleration Modules

The Career Acceleration Module is one of several mechanisms by which we hope to “bring business into the business school.” The concept emerged through discussions among faculty members, Executive Partners, Board members, the Dean’s office, and Admissions and Placement staff. Our size and resource constraints dictated a focused niche strategy, and the ultimate outcome was a decision to focus the second-year MBA curriculum on a limited number of career tracks that would cater to the specific needs of select companies or industries.

Each CAM is a six-week, intensive immersion in a particular career track. During the CAM, students will take no other courses, allowing the development team to work outside of the strictures of a traditional course. In the Consumer Brand Marketing CAM, for example, we plan to take a week to visit exemplar consumer marketing firms to learn about best practices from those who are living the job. The faculty committed to pilot several CAMs beginning in October, 2004.

One might reasonably ask whether the CAMs are simply a re-jiggering and relabeling of traditional MBA electives. The key difference is that they are being co-developed *and co-delivered* by cross-disciplinary teams of faculty and executives representing the career tracks we wish to serve.

Pilot CAM development was initiated by autonomous, self-organizing teams, starting with volunteer faculty “champions” who were provided modest stipends and reduced teaching loads in return for overseeing the development and execution of the pilot runs. Each team was given broad latitude to design a CAM, within the following parameters:

1. The CAM must focus on a career path, not a functional discipline,

2. Appropriate functional skills from other disciplines must be brought into the CAM where required to prepare students for the chosen career path,

3. The CAM must be developed and delivered in partnership with business professionals in the organizations that hire in that career path,

4. Post-CAM assessment must involve those professionals, and

5. The budget for funding CAM activities must be approved by the Dean’s office.

Evolution of the Consumer Brand Marketing CAM

Four marketing faculty members volunteered to spearhead the development of what has emerged as the Consumer Brand Marketing CAM. These included the authors and a senior faculty member from the task force that first articulated the CAM model. Our first task was to orient the module by choosing a fairly specific entry-level position and the natural career paths that would follow that entry point. We chose consumer brand marketing because of our own interests, historic student appeal, and access to managers in such organizations. We then identified what we believed to be the key skills, tools and knowledge required for success in that career track. These were then translated into a preliminary list of module topics and delivery vehicles. The latter included: a “live” case from a consumer marketing firm that would run the length of the CAM, generating deeper analysis than the typical case study; an interactive, competitive simulation, also running the length of the CAM; field trips to exemplar consumer marketing organizations; and discussion panels dealing with job challenges, key skills, and industry trends featuring managers in various stages of their careers.

To get preliminary feedback on the concept, we brought in Executive Partners with extensive marketing experience, including one who had recently retired from a global Marketing Manager position with a premier consumer packaged goods company. Their "friendly fire" helped us refine our thinking and offered additional input on day-to-day content for the six-week module.

Once the Executive Partners were satisfied with the plan, we asked them to use the resulting draft proposal as a "straw man" to solicit input from their contacts in relevant companies. We also sent the proposal to alumni at various stages in their careers, from top managers with a couple of decades of experience to newly-minted brand assistants in their first rotation at a consumer packaged goods company. After incorporating their input, we asked them to share the revised model with contacts who are not affiliated with William and Mary. We also asked several alumni to come back to campus to share key skills or experiences, and others to help us find relevant live cases and field trips.

Lessons Learned Thus Far

At this point, any speculation over whether this process will lead to "better and timelier products" is just that: speculation. We are currently almost two months from the launch of the pilot CAMs. Still, we have already experienced some of the benefits of a trans-organizational, multi-functional team approach. The preliminary evidence is that we *are* being more responsive to our employer market, we're certainly learning a lot, and we're definitely finding that our customers are happier and more involved. We will know more about the response of students—and of the job market—next spring.

Although we had expected *some* useful feedback from the business community, we have been surprised by the quantity and quality of suggestions received, and offers—sometimes unsolicited—to help in more tangible ways. For example, a brand manager alumnus with a large consumer packaged goods company forwarded the CAM proposal to the director of their in-house educational programs to get feedback on managerially-relevant education. Shortly thereafter, the director called us to ask whether he could come to campus to share some of their proprietary brand management models with our students. He was not alone: we have had similar offers from several other organizations. One sent us a 13-week marketing management curriculum that all their new hires complete. Another recently offered to bring our students to company headquarters for a day of on-site training in their market and customer analysis approaches.

The team product development process has also helped us think about how to engender more stable and mutually-beneficial relationships with the businesses we serve. Sometimes, new ideas have come from unexpected places. For example, a visit to our MBA Placement Director—originally intended simply to garner names and addresses of alumni who might help with the CAM—evolved into a brainstorming session that culminated in the idea of establishing a Marketing Career Advisory Board. The Board will provide curriculum and program guidance, collaborate in program execution, advise and mentor students interested in marketing careers, share their insights on leading-edge marketing practices, and select additional members to partner with us.

Overall, we are encouraged and delighted by the tangible level of support received from our industry partners on the development teams. That, at least, seems to validate our belief that co-ownership of the development process is something that the business community will embrace. As we move forward with program delivery, we are soliciting their help in designing metrics to assess outcomes and improve the product in future iterations.

After adjustments based on what we learn from the pilot run in 2004, we will go full-scale in the fall of 2005. Each second-year student will choose two Career Acceleration Modules as well as complementary support modules designed to either broaden their business perspective or deepen their understanding of key skills required in their chosen career paths. All will be co-designed and delivered by cross-functional, trans-organizational teams, and will completely replace traditional second-year electives in the 2005-2006 academic year. Additional executive mentoring in the first year of the MBA Program—and even before students start the program—is also in the works. Ultimately, we expect the lessons learned as the CAMs evolve to drive change in the foundational courses found in the first year of the MBA program.

Going full-scale will undoubtedly stretch the limits of our resources, both financial and human. It will also require far more faculty members to change the way they teach, collaborate, and think about who "owns" courses. To a large extent, our long-term success will be contingent on the credibility of the pilot program. We will know something about that in six months. It will take several years to see if the *real* dividends of this new approach—better students, loyal/happy employers, strong business partnerships—live up to our hopes.

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