

Curriculum Variation in MBA Programs

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GMAC[®] Research Reports • RR-06-03 • May 8, 2006

Abstract

Business schools today are able to differentiate themselves by offering prospective students a wide range of curriculum and program options. In this study, the similarities and differences in curricula for full-time, part-time, and executive programs are compared for a stratified random sample of 150 schools. One would expect that since the goal of each program type is the same, acquiring the skills to have a successful career in management, differentiation among programs would be minimal. In this analysis, discriminant analysis was used to determine if program type could be identified based on required courses. The program type is used as the criterion variable, and courses are used as the predictor variables. Course data was partitioned into meaningful subgroups based on shared subject matter to identify the subjects that could discriminate between program types. Frequency distributions for all course data were also computed and stratified by program type. Results revealed that there are significant differences in the required courses of executive MBA programs compared to full-time and part-time programs.

Today, a multitude of program structures are available to cater to a student's needs, including one- or two-year full-time programs, part-time programs, executive programs, and online and/or distance learning programs. One might assume these programs vary solely based on course scheduling designed to accommodate student needs. Though all these programs serve the main purpose, a master's level education in business administration, is it possible that variation beyond timing exists among program types? Does the actual content of each program vary? This analysis focuses on the required course offerings that make up these programs to determine if those offerings can be distinguished among full-time, part-time, and executive programs.

Background

Structural Program Differences

The structures of full-time programs offer distinct advantages for students able to make the time commitment. In full-time programs, the student is fully

immersed and is able to take advantage of program offerings such as career services (including campus interviews), career counseling, social and professional clubs, and other "campus life" services, like an executive speaker series. Full-time programs can benefit both career switchers (those seeking to change job functions or industries) and career enhancers (those seeking to continue in their current job function or industry). These programs provide an opportunity to develop knowledge in a specific discipline, leading to new job skills and prospects in a shorter duration than with other programs.

Part-time MBA programs tend to be more accommodating to working professionals and students with scheduling needs. Part-time programs may be attractive to career enhancers who have a good foundation of experience and want to further their career in a chosen field. Some part-time programs offer the same option to specialize through concentrations and open electives as full-time programs, but others offer only a limited number of concentrations.

Of the program types examined, executive programs are the latest phenomena. Executive programs are a response to the needs of students who can not give up full-time employment for one or two years. Similar to part-time programs, the executive programs are most accommodating to working professionals. They are also accommodating to employees, often of regional employers, and many corporations today will sponsor employee enrollment in executive programs. “Companies embark on executive education to improve skills or teach new required skills” (Dietz, 1997, p.24).

One key difference between executive and full-time programs is the limited or lack of opportunity to specialize in an executive program. Executive students are less likely to need or desire services (i.e., career and student services) that full-time students desire (Edgington, 2003). Executive programs attract older students, whereas younger students are more likely to enroll in full-time programs. Because applicants to this type of program generally have years of experience in a professional setting, the executive program offers a different level of coursework. There is also a notable difference between timelines in the b-school pipeline for these programs—students enrolled in an executive program take about twice as long between completion of an undergraduate degree and enrollment in an MBA program as students enrolled in full-time programs (Schoenfeld & Edgington, 2005), which may again be a reflection of the age difference.

Of the respondents to the 2004 mba.com Registrants Survey (Schoenfeld & Edgington, 2005), expenditure was significantly more widespread as a school selection criteria among full-time students compared with part-time and executive students. Survey results also indicated that convenience (i.e., scheduling and timing) is significantly more common among part-time and executive students compared with full-time students. For executive students, more than half (55%) consider the curriculum as a part of their school section criteria compared with 43% of full-time and 36% of part-time students—a statistically significant difference.

In the GMAC® Global MBA® Graduate Survey, Schoenfeld (2006) asked graduating students to rate various aspects of their program based on their entire educational experience. The survey results show marked variability between programs from the perspective of graduating MBAs. One of the top three aspects rated outstanding or excellent in terms of value by respondents of all three program types was curriculum. Respondents of full-time programs indicated that the MBA degree provides an opportunity for more challenging and interesting work in the future and advancement potential as the leading causes for their satisfaction with their chosen program. Part-time program respondents were the most satisfied with the ability to remain marketable and competitive and the credentials needed to increase career options. Executive respondents most valued an increase in long-term potential through the development of skills and abilities.

Related Literature

The 2004 mba.com Registrants Survey (Schoenfeld & Edgington, 2005) identifies a prospective student’s process for deciding on a program based on various factors, including quality and reputation, financial costs, convenience, curriculum offered, and school experience. Program type served as a deterrent for enrollment in full-time programs for some and was one of the top reasons part-time programs were chosen. For the executive MBA, class schedule was a powerful contributor of matriculation.

Each MBA program competes with other MBA programs based on the appeal of its program structure, the school’s brand image, and the value of its MBA. Attributes such as these make each program unique. However, in concept, the content of a program, i.e., the courses represented within each program type, could be replicated in any program. A very basic distinction among program types, then, can be the configuration of the courses (Segev, Raveh, & Farjoun, 1999). The succession of courses and the timeframe of the courses are mainly due to differentiation among program types, not necessarily the content of the courses.

Curriculum is affected by the program structure, specifically the time constraints. What is taught in a two-year, full-time program may not be easily compressed into a one-year or part-time program (Dierickx & Cool, 1989). However, the content of a program partially represents the business school's stock and distribution of knowledge (Segev, Raveh, & Farjoun, 1999), so the compression of a course does not necessarily indicate any loss in value of the course to the student. Only after successfully obtaining an MBA can a student assess its value. In a factor analysis by Bruce (2006), curriculum was moderately correlated to a scale representing the value of an MBA by program type. Satisfaction with a program is directly related to the knowledge that can be absorbed from its curriculum in addition to the convenience provided to students by varying structures of program types (Bruce, 2006). The implication is that curriculum has a significant impact on the overall perceived value of an MBA.

Perceived quality of programs and program characteristics measured by MBA program managers and their customers who ranked the curriculum also impact the selection criteria (Schoenfeld & Bruce, 2005). When the marketing strategies initiated by business schools were analyzed, curriculum was ranked as the most important factor that needs to be researched with regard to graduate business schools. If curriculum is a pertinent factor in deciding on options given to a student for management education, the differentiation between program types can be a critical decision-making aspect. MBA programs are composed of a variety of product offerings (Schoenfeld & Bruce, 2005). The question is how much variety there is in the core products, the core curriculum across programs.

Satisfaction with a program, differentiation among programs, and matriculation by program type are all important factors. Related literature has touched on the topic of differentiation among program types. However, none of the literature has focused on how the curriculum of a program can influence many imperative factors. The

curriculum in an MBA program lays a foundation, and it is therefore essential to understanding how steady this foundation is across program types.

Methodology

This paper examines three types of MBA programs—full-time, part-time, and executive—by comparing their core required courses. The curriculum analyzed was extracted from a stratified random sample of 150 GMAT® using schools based in the United States only. The core curriculum of each program was researched using each school's Web site and online course catalogue. In this random sample, 50 full-time, 50 part-time, and 50 executive programs were randomly sampled from a stratified listing of 403 part-time, 2098 full-time, and 142 executive GMAT® using programs compiled by the Graduate Management Admission Council® (GMAC®).

Initially, 74 core course titles and descriptions were compiled from the 150 programs. It was noted that several courses had extremely low frequencies (e.g., 15 courses were offered at only one or two programs) and that several courses had very similar titles. Courses offered at only one or two schools would not generalize to program type and could adversely affect the statistical analyses. If one course was offered at less than three of the 150 schools, it was either clustered into a group of courses with similar objectives or it was eliminated. After these deletions and combinations, 57 courses were available to distinguish the programs from one another. In order to assess the variation among program types, each course was then clustered into broad categories based on the expert judgment of two former admissions directors. Clusters included courses that either shared the same title or the same requirements. The final result was seven clusters with varying numbers of courses within each. The appendix contains a table illustrating the wide variety of courses offered across the MBA programs and how they were distributed among the clusters. Differences across program types in which courses are required can be seen.

Figure I. Course Clusters

Economics	Operations and Supply Chain
Macroeconomics Microeconomics Economic Analysis Managerial Economics Business Government and Int'l Economy Economics of Competition Economic and Social Goals	Operations Management Operations Strategies for the General Manager Supply Chain Management Service Operations/e-Commerce Mgmt. Consulting
Finance and Accounting	Information Systems
Managerial Accounting Financial Risk Management Managerial Finance Finance Capital Markets Financial Accounting Mergers and Acquisitions Principles of Accounting International Finance	Management Information Systems Enabled Technological Transformations Competing in Networked Environment
Statistics and Decision Science	People and Government
Decision Science Statistics Enterprise Integration Analysis for Managers	Negotiations Organizational Analysis Change Management International Business Human Resource Management Ethics Global Strategic Management Management Communications International Residency Legal Environments Leadership Organizational Behavior (Leadership) Strategic Management (Business Policy) Entrepreneurial Manager Business and Government Personal Leadership & Career Mgmt. Strategic Advantage/Implementation Strategic Human Resource Management Organizations Corporate Governance Management Skills Global Leadership Values and Crisis Management International Competitive Management
Marketing	
Marketing Management Marketing Strategy Management for Complex Product Design and Development Customer Value/Customer-Focused Mgmt.	

Each cluster is represented in the three program types. The clusters enabled the comparison of part-time to full-time programs, part-time to executive programs, and full-

time to executive programs. Discriminant analysis function was used to test the null hypothesis of no variation across program types. Standardized and structure matrix

functions were obtained in order to interpret which clusters influenced the variation between program types. The unit of analysis was the number of courses within each of the seven clusters offered by each program type. All analyses were conducted at the $p < .05$ level, and all analyses were conducted pairwise.

Results

The clusters of similar courses were used to classify cases into groups using discriminant analysis. Separate models were developed for each comparison in order to determine

if the results generalize. Each of the following comparisons also provides descriptive statistics for analyzing variation.

Full-time vs. Part-time Programs

Variation within a course cluster and averages for the courses within a cluster per the program type for the part-time and full-time comparison are shown in Table I, below. For each cluster, the means and standard deviations of the number of required courses are quite similar across program type.

Course Cluster	Full-time Program		Part-time Program	
	Mean	Std. Deviation	Mean	Std. Deviation
Information Systems	.56	.541	.66	.519
Statistics and Decision Science	.66	.519	.64	.525
Economics	1.08	.724	1.00	.639
Operations and Supply Chain	.74	.527	.72	.536
Marketing	.98	.377	1.04	.533
Finance and Accounting	2.28	.834	2.54	1.014
People and Government	2.84	1.503	3.30	1.693

Full-time and part-time programs could not be differentiated based on the core course clusters. Wilks' lambda was .551, which is not significant at $p < .05$. The classification table (Table 2) presents how accurately full-time and part-time programs were classified into their

respective program type based on the course cluster function. The discriminant function correctly classified only 62% of the cases, which is only slightly better than the 50% classification accuracy that could be obtained by chance.

Program Type	Predicted group membership		Total
	Full-time	Part-time	
Full-time	32 (64%)	18 (36%)	50 (100%)
Part-time	20 (40%)	30 (60%)	50 (100%)

Part-time vs. Executive Programs

Summary descriptive statistics for the part-time and executive program comparison can be seen in Table 3. In this comparison, the Finance and Accounting cluster and the People and Government cluster have the widest variation among part-time and executive program types.

The null hypothesis that the populations have the same means was rejected based on the discriminant function analysis ($r=.413$; Wilks' $\lambda=.829$, $df=7$, $p<.05$). There is a statistically significant difference between these two program types.

Table 3. Course Cluster Variation and Summary Descriptive Statistics for Part-time and Executive Programs				
Course Cluster	Part-time Program		Executive Program	
	Mean	Std. Deviation	Mean	Std. Deviation
Information Systems	.66	.519	.84	.738
Statistics and Decision Science	.64	.525	.74	.527
Economics	1.00	.639	1.26	.751
Operations and Supply Chain	.72	.536	.88	.773
Marketing	1.04	.533	1.18	.720
Finance and Accounting	2.54	1.014	2.94	1.707
People and Government	3.30	1.693	5.52	3.303

There were four clusters in particular—the People and Government, Economics, Finance and Accounting, and Information Systems clusters—that strongly influenced the variation between these two program types, as illustrated in Table 4. The difference between the People and Government and Economics clusters is the largest,

making them the best indicators in this comparison. The Finance and Accounting cluster, along with the Information Systems cluster, also appeared to influence the prediction, which is further supported by the observations made based on the means of these clusters.

Table 4. Cluster Influence on Variation between Part-time and Executive Programs		
Course Cluster	Standardized Matrix	Structure Matrix
Information Systems	.053	.314
Statistics and Decision Science	-.005	.211
Economics	.171	.415
Operations and Supply Chain	.021	.268
Marketing	-.219	.246
Finance and Accounting	-.245	.317
People and Government	1.105	.941

The classification results based on the predictions resulted in an overall accuracy of 67%. (See Table 5.)

Table 5. Classification of Clusters for Executive and Part-time Programs			
Program	Predicted group membership		Total
	Executive	Part-time	
Executive	39 (78%)	11 (22%)	50 (100%)
Part-time	22 (44%)	28 (56%)	50 (100%)

Executive vs. Full-time Programs

There is a statistically significant difference in course offerings between executive and full-time programs

($r=.485$; Wilks' $\lambda=.765$, $df=7$, $p<.05$). Table 6 shows that some of the variables examined are effective predictors in the variation of the two programs.

Table 6. Course Cluster Variation and Summary Descriptive Statistics for Executive and Full-time Programs				
Course Cluster	Executive Program		Full-time Program	
	Mean	Std. Deviation	Mean	Std. Deviation
Information Systems	.84	.738	.56	.541
Statistics and Decision Science	.74	.527	.66	.519
Economics	1.26	.751	1.08	.724
Operations and Supply Chain	.88	.773	.74	.527
Marketing	1.18	.720	.98	.377
Finance and Accounting	2.94	1.707	2.28	.834
People and Government	5.52	3.303	2.84	1.503

The comparison revealed that the course clusters that accounted for the most variance for this function were the People and Government, Information Systems, Finance and Accounting, and Marketing clusters. Table 7

represents the relationships between the courses and the composite for the executive and full-time program comparison.

Table 7. Cluster Influence on Variation between Executive and Full-time Programs		
Course Cluster	Standardized Matrix	Structure Matrix
Information Systems	.020	.394
Statistics and Decision Science	.090	.139
Economics	-.143	.223
Operations and Supply Chain	-.054	.193
Marketing	-.350	.317
Finance and Accounting	.106	.448
People and Government	1.140	.952

The function correctly classified 71% of the executive and full-time program types.

Table 8. Classification of Clusters for Executive and Full-time Programs			
Program Type	Predicted group membership		Total
	Executive	Full-time	
Executive	32 (64%)	18 (36%)	50 (100%)
Full-time	11 (22%)	39 (78%)	100 (100%)

Discussion

The hypothesis that program types could be differentiated based on a function of course clusters is supported for two of the three comparisons. The discriminant analysis yielded two discriminant functions that were statistically significant at $p < .05$. The first function, largely influenced by program type variations for People and Government and Economics course offerings, differentiated part-time and executive MBA programs. The second comparison, that between full-time and executive MBA programs, demonstrated that these program types could be

differentiated based on a function influenced by Finance and Accounting and People and Government course offerings. Both functions were useful for explaining variation with respect to program type for the two comparisons of part-time to executive programs and full-time to executive programs.

Cross-program variability in curriculum is an important feature of business schools that should be considered by prospective students when selecting a program type. The lack of variance between full-time and part-time programs implies that the core curriculum associated with a part-

time program does not drift far from the curriculum of a full-time program, regardless of the difference in cost and scheduling. This similarity could reflect the fact that a school might offer both full-time and part-time program options with little differences other than scheduling. On the other hand, the curriculum differences between executive MBA programs and the other two types may not be surprising. Executives enrolling in MBA programs may expect the program to take better advantage of their accumulated knowledge, taking into account the years of professional experience a typical executive MBA candidate has before enrolling in the program.

An analysis of GMAT® data by GMAC® revealed that the average age of part-time applicants is 29 years old with an average GMAT® score of 490. Full-time applicants average 26 years of age with an average GMAT® score of 540. These averages indicate that though these programs do not differentiate on curriculum, they do differ in the nature of their applicants and, presumably, their student bodies. This difference may create the perception that these program types differ greatly when they probably do not. Thus, the notion that a full-time program requires more effort by the student may not be due to the program structure but, rather, it may be a function of the nature of a student body who are younger, potentially less experienced, and possibly more competitive academically.

Executive programs offer the widest variation among the three program types. Each cluster has more courses for the executive program than the full-time and part-time programs. For executive MBA candidates, leadership and innovation are an integral part of their experience because executive students are seeking skills to be applied to their current working environment. Full-time and part-time programs tend to be more content-specific because the candidates have a less definite path to follow or immediate need for applying the skills. An example of this scenario can be seen in the finance and accounting cluster. Among the three program types, more Finance courses are offered in full-time programs, and more Managerial Accounting courses are offered in part-time programs. Yet the most Finance and Accounting courses are offered in the

executive program, and the content-specific courses are extended more heavily in the part-time and full-time programs in this cluster. However, the total range of courses is higher in the executive programs because they are more condensed. The broad range of core courses within the cluster as it is available to the executive program fits more closely to the specific direction an executive MBA candidate needs to follow—a direction that is not necessarily evident when candidates begin the other two program types.

There remains a need to further illuminate the special characteristics of each program type. Such future analysis might be informed by application trends by program type to reveal how programs are evolving to meet the needs of future MBA candidates. A closer look at executive MBA programs that incorporate international programs might also provide more conclusive information on what makes executive programs so unique in comparison to part-time and full-time programs. Additionally, a study of executive programs in more detail could help to understand student preferences and benchmark their practices.

Contact Information

For questions or comments regarding study findings, methodology or data, please contact the GMAC Research and Development department at research@gmac.com.

Acknowledgements

Lawrence Rudner, Vice President of Research and Development, GMAC®, document revision and approvals; Judith Dror, independent contractor for GMAC®, syllabi research; Sandra Kelzenberg, Client Services Representative, GMAC®, curriculum and program expertise.

A version of this paper was presented at The 6th Annual Hawaii International Conference on Business, Oahu, HI, on May 26, 2006.

The views and opinions expressed in this paper are those of the author and do not necessarily reflect those of the Graduate Management Admission Council®.

References

- Bruce, G. (2006). *Understanding the Value of the MBA: A Program Type Comparison* (RR-06-01). McLean, VA: Graduate Management Admission Council®.
- Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage, *Management Science*, 35(12), 1504-1512.
- Dietz, J. (1997). *The Relevance of Executive MBA Programs: Student Expectations and Satisfaction*, 24-25.
- Edgington, R. (2003). *mba.com Registrants Survey Executive Summary 2003*. McLean, VA: Graduate Management Admission Council®. Available at <http://www.gmac.com/registrantsurvey>.
- Klecka, W.R. (1980). Discriminant analysis. *Quantitative Applications in the Social Sciences Series, No. 19*. Thousand Oaks, CA: Sage Publications.
- Schoenfeld, G. (2006). *Global MBA® Graduate Survey Comprehensive Data Report 2006*. McLean, VA: Graduate Management Admission Council®. Available at <http://www.gmac.com/globalmba>.
- Schoenfeld, G., & Bruce, G. (2005). School Brand Images and Brand Choices in MBA Programs, *2005 Symposium for the Marketing of Higher Education*. Chicago, IL: American Marketing Association, 130-139. Available at http://www.gmac.com/gmac/ResearchandTrends/Tools/RR0510_SchoolBrandImagesandChoices.htm.
- Schoenfeld, G., & Edgington, R. (2005). *mba.com Registrants Survey Executive Summary 2004*. McLean, VA: Graduate Management Admission Council®. Available at <http://www.gmac.com/registrantsurvey>.
- Segev E., Raveh A., & Farjoun, M. (1999). Conceptual Maps of the leading MBA programs in the United States: Core Courses, Concentration Areas, and the Ranking of the School. *Strategic Management Journal*, 549-565.

Appendix

Number of Programs Offering Each Core Course by Program Type and Cluster					
Cluster	Course Title	Executive Program	Full-time Program	Part-time Program	Total Courses
Economics	Business Government and Int'l Economy	5	4	2	11
	Economic Analysis	5	11	4	20
	Economic and Social Goals	1	0	2	3
	Economics of Competition	2	0	3	5
	Macroeconomics	15	17	6	38
	Managerial Economics	25	14	28	67
	Microeconomics	10	8	5	23
Finance and Accounting	Capital Markets	17	0	4	21
	Finance	24	44	18	86
	Financial Accounting	29	31	31	91
	Financial Risk Management	9	0	2	11
	International Finance	6	0	0	6
	Managerial Accounting	36	33	38	107
	Managerial Finance	23	1	34	58
	Mergers and Acquisitions	3	0	0	3
Information Systems	Principles of Accounting	0	5	0	5
	Competing in Networked Environment	4	0	1	5
	Enabled Technological Transformations	4	1	0	5
	Knowledge Management	4	0	0	4
Marketing	Management Information Systems	30	27	32	89
	Customer Value/Customer-Focused Mgmt.	2	2	2	6
	Marketing Management	40	46	40	126
	Marketing Strategy	12	0	9	21
Operations and Supply Chain	Product Design and Development	5	1	1	7
	Consulting	2	2	2	6
	Operations Management	28	35	28	91
	Operations Strategies for the General Manager	4	0	0	4
	Service Operations/e-Commerce Mgmt.	6	0	1	7
	Supply Chain Management	4	0	5	9

Number of Programs Offering Each Core Course by Program Type and Cluster					
Cluster	Course Title	Executive Program	Full-time Program	Part-time Program	Total Courses
People and Government	Business and Government	3	6	1	10
	Change Management	10	2	0	12
	Corporate Governance	6	0	1	7
	Entrepreneurial Manager	9	1	1	11
	Ethics	11	10	7	28
	Global Leadership	5	0	1	6
	Global Strategic Management	19	0	8	27
	Human Resource Management	15	10	4	29
	International Business	19	9	9	37
	International Competitive Management	0	4	0	4
	International Residency	20	0	3	23
	Leadership	23	13	20	56
	Legal Environments	18	3	17	38
	Management Communications	11	7	8	26
	Management for Complex Organizations	5	2	1	8
	Management Skills	0	0	6	6
	Negotiations	9	3	1	13
	Organizational Analysis	9	2	2	13
	Organizational Behavior (Leadership)	23	34	34	91
	Personal Leadership & Career Mgmt.	3	2	5	10
	Strategic Advantage/Implementation	9	0	1	10
	Strategic Human Resource Management	9	0	1	10
	Strategic Management (Business Policy)	37	34	34	105
Values and Crisis Management	3	0	0	3	
Statistics and Decision Science	Decision Science	21	15	14	50
	Statistics	32	30	31	93
	Analysis for Managers	5	0	1	6
	Enterprise Integration	0	3	0	3

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