

Exploring the Likelihood and Reality of MBA Alumni Financial Donations

Grady D. Bruce

GMAC[®] Research Reports • RR-07-12 • January 10, 2007

Abstract

Alumni donations to their alma maters made up the largest percentage of voluntary support received by institutions of higher education in 2005, according to findings from the Council for Aid to Education (Kaplan, 2006). Results from the annual survey of voluntary support to higher education showed that alumni giving made up 28% of the \$25.6 billion in support for 2005, slightly exceeding donations from foundations. In commenting on survey results, John Lippincott, president of the Council for Advancement and Support of Education, said “philanthropic contributions provide the margin of excellence for educational institutions” (Lippincott, 2006). With that in mind, it is encouraging that overall donations increased by 4.9% in 2005, and alumni donations increased 6% from 2004 to 2005, marking the continuation of a trend started in 2003. However, the percentage of alumni making gifts, 12.4% in 2005, has declined each year since 2001, when it stood at 13.8%. Thus, the increase in alumni donations overall is the result of an increase in the average contribution per alumnus, rather than in the number who contribute. According to the survey sponsors, the decline in alumni participation may have occurred because institutions focused less on the number of gifts than on the size of gifts; as a result of improvements in record keeping that increased the number of alumni on record, which would have affected the percentages; or because fewer alumni were inclined to make contributions.

But what factors are associated with the likelihood that graduating students will make future financial donations to their schools—specifically, those graduating from MBA programs? And what factors are associated with the frequency of financial donations by MBA alumni? These are the questions explored in this study. The exploration begins with a review of the literature on alumni giving, with special attention to research that bears on the present study. Using data from two large-scale surveys of graduating MBAs and MBA alumni, measures and analyses are presented and interpreted for both the donation likelihood of graduating students and the donation behavior of alumni. A discussion that relates the findings to prior research and presents implications for MBA program administrators follows along with suggestions for future research.

Background

Research on alumni giving is a subset of a much larger body of research on charitable giving. Economists, sociologists, organization behaviorists, marketers, and fund-raising professionals have each conducted studies guided by theories from their specific disciplines or, in

some cases, solely by the availability of data in alumni databases. With regard to charitable giving in general, Clotfelder (2003) offers this summary of reasons for the “apparently anomalous act of giving money away” (p. 110): “donors give because they care about the well-being of recipients (e.g., Becker, 1974); contributions are merely

a payment for recognition and organized flattery (Yoo & Harrison, 1989); donors derive utility from the act of giving itself (e.g., Andreoni, 1990); donors give in response to social pressure (e.g., Keating et al, 1981); and giving is motivated by commitment, not utility maximization (Sen, 1978)."

Both macroeconomic variables and individual variables have been utilized as predictors of charitable giving. Okunade and Berl (1997) point to government policy in the form of income and estate tax incentives, demographic variables (including age and gender), socioeconomic variables (including income, race and employment status), and psychographic variables ("perceptions of self and recipient charities, donor lifestyle, values, and beliefs") (p. 203). Student evaluations of their educational experiences are among the psychographic variables that have been studied. Stutler and Calvario (1996) argued that one's experience as a student affects the likelihood of future financial donations as an alumnus. In a study of college seniors close to graduation, these researchers found that nine measures of satisfaction with the college experience discriminated likely future donors from non-donors with 79% accuracy. They noted, "Students are alumni in transition and the road to active and involved alumni must be cultivated throughout a student's years on campus [and that] attention must be given to how satisfied or dissatisfied the customer is with their college experience" (p. 13). In a similar vein, McAlexander and Koenig (2001) studied the "university experience" with a sample of 481 alumni from a large Western university. They found that "the transformational experiences associated with education are important and long-lasting contributors to relationships [between the university and alumni] and future brand-loyalty related outcomes" (p. 35), including financial donations. They emphasized the importance of "creating a situation that encourages students to form bonds with faculty, administrators, and other key staff *while they are attending the university*" and "to begin building and planning the alumni relationship during the *student's* educational experience (p. 38, italics theirs). In follow-up research with the same sample, McAlexander, Koenig, and Schouten (2004) found that alumni donation behavior is strongly influenced by the interpersonal ties formed with peers when alumni are students.

Heckman and Guskey (1998), in their study of 1,010 alumni from a private, Midwestern university, developed a theory of "discretionary collaborative behavior," one element being donation behavior of alumni. These researchers used discriminant analysis to distinguish donors from non-donors. Among the variables that discriminated donors from non-donors were satisfaction with the university's performance, career preparation, and alumni involvement. They concluded: "A striking result concerns the importance of active involvement and activity links between alumni and the university. The most robust characteristic of both collaborators and contributors was a high level of participation in university-sponsored social activities" (p. 106).

Mael and Ashforth (1992), in a study of 297 alumni of an all-male religious college, defined organizational identification as a "perceived oneness with the organization and the experience of the organization's successes and failures as one's own" (p. 1). Their research supports a model of alumni giving in which the organizational identification of alumni is preceded, in part, by satisfaction with the organization and sentimentality. Support for the organization in the form of financial contributions is one result of organizational identification. Beeler (1982) reached a similar conclusion, asserting that "emotional attachment" to the university is the "strongest predictor" of alumni giving (as quoted in Hueston, 1992, p. 21).

Arnett, German, and Hunt (2003) developed and tested a model that is also based on the individual's identification with the university. The model was developed in the context of relationship marketing, which is "based on the premise that marketing exchanges are not of the discrete 'transactional' variety, but rather are long in duration and reflect an ongoing relationship development process" (p. 89, relying on Dwyer, Schurr, & Oh, 1987). Relationship marketing is particularly applicable to the exchange relationship that exists between the university (school/program) and the student. That is, the relationship is formed and maintained while the individual is a student and may continue after graduation. Arnett et al. posit that identity salience is an important factor that influences relationships that are "primarily based on social exchange" (p. 91), and they characterize the relationship

between the student and the school/program as one based (primarily) on social exchange. “Identity salience” refers to the prominence of the person’s school/program identity in a hierarchy of competing identities that make up the person’s self-concept. Essentially, how much does it mean to the person to be a student or alumnus of “X” university? The model specifies identity salience as a mediating construct between four relationship-inducing factors and two outcomes (donating money to the university and promoting it to others). The relationship-inducing factors are:

1. Participation—extracurricular activities while a student
2. Reciprocity—acknowledgement that the person’s contribution is valuable to the success of the school/program
3. Prestige of the university
4. Satisfaction with the university experience

Tests of the model revealed that identity salience is a mediating factor between two relationship-inducing factors and the donating outcome: participation and prestige. Reciprocity and satisfaction with the university were not significantly related to identity salience. This finding may be surprising, given other research that shows the importance of satisfaction in understanding donation behavior. In discussing the absence of a relationship between satisfaction and identity salience, the authors note that “these results may be an indicator that the relationship between satisfaction and identity salience is more complex than our model indicates” or “that a person might not be satisfied with the college itself but could still develop a salient university identity because of other social connections (e.g., friendships)” (p. 101). Indeed, in follow-up research, Arnett, Wittman, and Wilson (2003) examined “the nature of the student-faculty relationship development process and its affect (sic) on helpfulness” (p. 127), which they “define as a ‘state of mind’ conducive to future helping behavior” (p. 127).

Although some studies have included “MBA graduate” as a variable in their analyses (Okunade, 1993, 1996; Clotfelter, 2003), the literature review revealed only one study that focused exclusively on MBA alumni. Edgington and Schoenfeld (2004b) found that satisfaction with four MBA benefits influenced the frequency of donations by MBAs graduating in the 2000–2004 time period. Alumni

indicating greater satisfaction that the MBA had given them each of the following benefits tended to be more frequent contributors to their alma maters (percentages show the relative influence of each benefit on donation behavior):

1. Opportunity to network and to form relationships of long-term value (37%)
2. An increase in earning power (35%)
3. Preparation to get a good job in the business world (17%)
4. Credentials you desired (11%)

Methodology

Two surveys conducted by GMAC® provide data used in this study. Both surveys are conducted online. Although some researchers have reservations about a “digital divide”—potential gaps in Web-based survey coverage—the populations and samples used in this research have access to computers and the Internet and are generally well-versed in their use, thus eliminating the greatest concerns with this mode of data collection. Below are descriptions of each survey, as well as the measures used or derived from each.

Global MBA Graduate Survey

Description. Each year, beginning in 2000, GMAC® conducts a survey of students in their final year of studies at graduate business programs around the world. Development of the survey sample is a two-step process. First, all GMAC® member schools and each school listed in the GMAC® internal database are invited to participate. Second, each participating school provides access to their students who are in their final year of studies. All contact with schools and students is conducted online. To encourage schools to participate, the schools are offered free data reports on responses from their students, which can be benchmarked against results for the overall sample and the school’s major competitors, identified from data on other schools to which their students originally sent Graduate Management Admission Test® (GMAT®) score reports during the application process.

Each school is sent an e-mail invitation to participate in the survey. In order to participate, each school either supplies GMAC® with a list of names and e-mail addresses of students intending to graduate in the survey

year or agrees to forward the student invitations directly to the graduating class. Pre-notification messages are e-mailed to the student sample a week prior to the survey launch. Survey invitations with a unique link to a Web-based survey are sent to students in the survey sample. The questionnaire is available online from mid-February through mid-March. Two weeks after the initial invitation, students who have not responded and those who have started, but have not completed the survey, are sent a reminder e-mail message. Respondents are offered the opportunity to participate in a drawing for one of four prizes of \$1,000 each as an incentive to participate.

Data for this study are from the Global MBA® Graduate Survey conducted in 2005, in which 128 schools participated. E-mail invitations were mailed to 18,520 graduating students; and 5,829 completed the online questionnaire, for a response rate of 31%.

Measures. The following measures are used in this study:

- Demographic—age, gender, and race/ethnicity (for U.S. citizens).
- Geographic—school location and citizenship
- Career—work experience, stage in job search process, and industry of post-MBA employment
- Educational experience—change in core competencies, satisfaction with benefits of the MBA, ratings of the overall value of the MBA, ratings of quality of the school/program, and the likelihood of recommending the school.
- Donation likelihood—the likelihood respondents would make future financial donations to their schools.

Demographic, geographic, and career variables were measured with direct questions and response categories shown in the results section below. With regard to educational experience, all variables except change in core competencies were measured on five-point Likert-type scales. Satisfaction with benefits of the MBA was measured with this question: “How satisfied are you that your MBA (or equivalent) degree will give you each of the following?” Nine potential benefits of the MBA degree were displayed randomly on respondents’ computer monitors; and respondents indicated their satisfaction with each along the following scale: extremely satisfied (5), very satisfied (4), somewhat satisfied (3), not very

satisfied (2), or not at all satisfied (1). The overall value of the MBA was measured with this question: “When you compare the total monetary cost of your MBA (or equivalent degree) to the quality of education you received, how would you rate the overall value of your MBA (or equivalent) degree?” Respondents rated overall value along this scale: outstanding (5), excellent (4), good (3), fair (2), or poor (1). The same five-point Likert-type scale was used to measure attitudes of graduating students toward the quality of seven aspects of the school/program in which they were enrolled: “Based on your entire educational experience as a graduate business school student, please rate each of the following aspects of your program.”

The likelihood of a school recommendation was measured by asking: “Would you recommend your school to someone who has decided to pursue an MBA?” Respondents selected from the following possibilities: definitely yes (5), probably yes (4), probably no (2), definitely no (1), or uncertain (3). The likelihood of future financial donations was measured with this question: “What is the likelihood you will give a financial donation to your graduate business school some time in the next five years?” Respondents could indicate “don’t know” or make a selection along the following scale: extremely likely (5), very likely (4), somewhat likely (3), not very likely (2), or not at all likely (1). This is the measure for *likely* giving behavior.

Changes in core competencies were measured by asking respondents to report their proficiency in a set of fifteen core competencies for two time frames, their pre-MBA (question number 2 in the survey) and current proficiency (widely separated, question number 9 in the survey). To report their pre-MBA proficiency, they answered this question: “How would you rate your level of proficiency in the following core competencies before entering your MBA program—on a continuum from basic, intermediate, advanced, to expert level?” To report proficiency at the end of their programs, they answered this question: “Now that you are almost finished with your MBA (or equivalent) program, how would you rate your current level of proficiency in the following core competencies—on a continuum from basic, intermediate, advanced, to expert level?” The eight-point scale utilized for these self reports is shown in Figure 1.

Figure I. Competency Scale

	Basic		Intermediate		Advanced		Expert	
Item Text	○	○	○	○	○	○	○	○

Responses to these two questions were used to derive measures of change in core competency as follows: First, responses to the pre-MBA question were factor analyzed (principal components analysis with varimax rotation and Kaiser normalization). Examination of initial eigenvalues led to the development of two-, three-, and four-factor solutions. Comparisons of factor structures and interpretability led to retention of the four-factor solution for use in additional analyses. The four factors explain 68% of total variance, with the first factor explaining 25%. Results are presented in the Appendix. Based on the factor loadings, the factors were labeled as follows: (1) managerial abilities, (2) quantitative/analytical skills, (3) communication skills, and (4) cultural/ethical sensitivity. Next, responses to the fifteen pre-MBA and post-MBA competencies were weighted by factor score coefficients to produce factor-level measures of competency. Changes in these measures were used in the analysis of donation likelihood.

MBA Alumni Perspectives Survey

Description. The MBA Alumni Perspectives Survey is a biannual panel survey of graduate business school alumni who previously participated in Global MBA® Graduate Surveys. Each year approximately three-quarters of the respondents to Global MBA® Graduate Surveys agree to participate in follow-up research. Data for this study are from the MBA Alumni Perspectives Survey conducted in September 2004. Alumni from the graduating classes of 2000, 2001, 2002, 2003, and 2004 who had given prior consent were invited to participate. As an incentive to

participate, alumni were offered participation in a drawing for one US\$500 and four US\$100 AMEX gift checks.

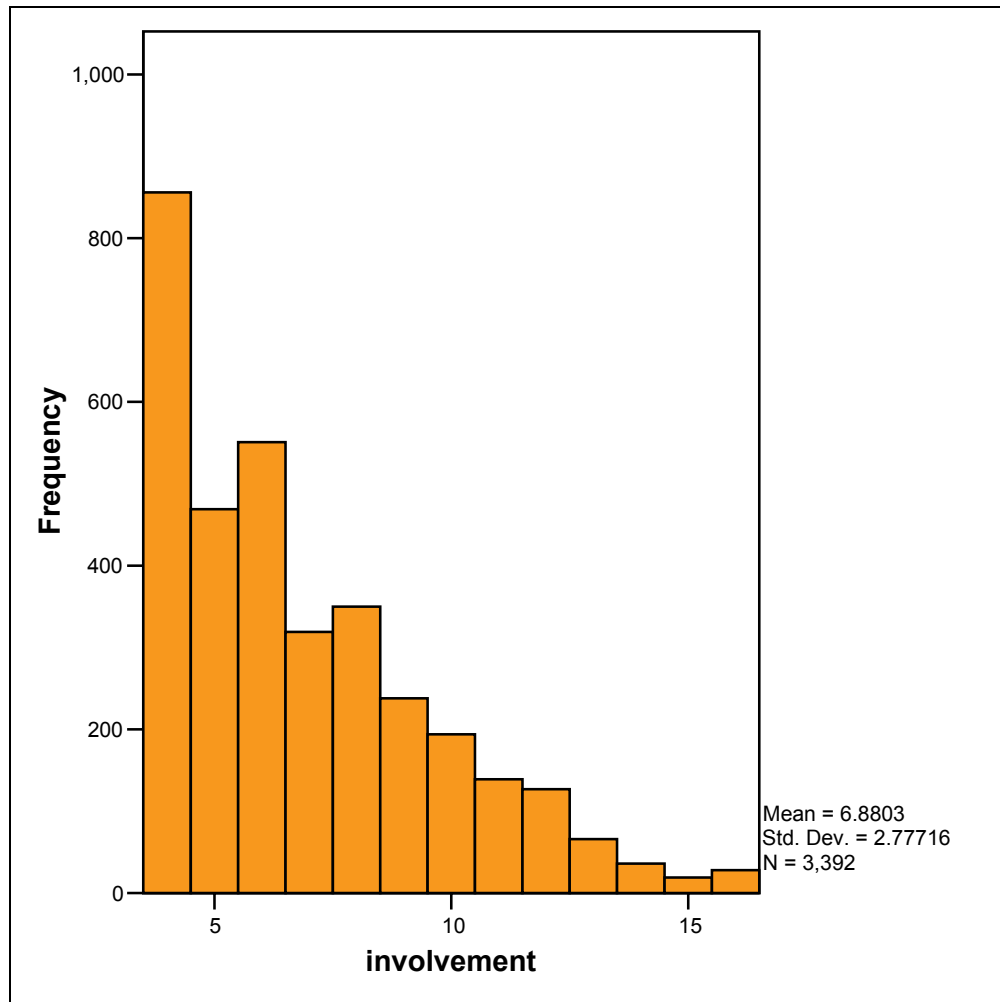
Edgington and Schoenfeld (2004a) report that 13,126 alumni were sent e-mail invitations to participate, 14% of which were undeliverable (1,840), yielding an adjusted sampling frame of 11,286. Of those alumni who were successfully contacted, 3,392 responded—a 30% response rate.

Measures. Alumni answered questions about the frequency with which they had been involved in four alumni activities: “As an alumnus, how often have you done the following activities since graduation?” They responded for each activity along a four-point scale: frequently (4), occasionally (3), rarely (2), and never (1). The activities were:

- Interview applicants for my admissions office
- Attend alumni social/networking events
- Recruit from my business school for new hires
- Meet prospective applicants for my business school

For the current study, an alumni involvement scale was created by summing responses for these four activities. Cronbach’s alpha for the resulting scale is .73, above the minimum level recommended by Nunnally (1978) for preliminary research and close to the average of .77 reported by Peterson (1994) in his meta-analysis of 4,286 alpha coefficients harvested from a broad sample of well-known journals in marketing and the social sciences. Figure 2 shows the distribution of scores for the alumni involvement scale.

Figure 2. Distribution of Alumni Involvement Scale



Item-total correlations for the alumni involvement scale are reported in Table I. Scale components in the table are ordered in terms of the strength of their correlation with

the involvement scale. All four scale components are moderately to strongly correlated with the total scale.

Table I. Item-Total Correlations—Alumni Involvement Scale	
Questionnaire Item	Pearson Correlation (<i>n</i> = 3,392)
Meet with prospective applicants as part of business school recruiting activities	0.82
Recruit from my business school for new hires	0.75
Attend alumni social/networking events	0.72
Interview applicants for my admissions office	0.70

In addition to answering the question on the frequency of their participation in activities, alumni answered a similar question with regard to the frequency with which they

give financial donations to their business school. Their response is the measure used for *actual* giving behavior.

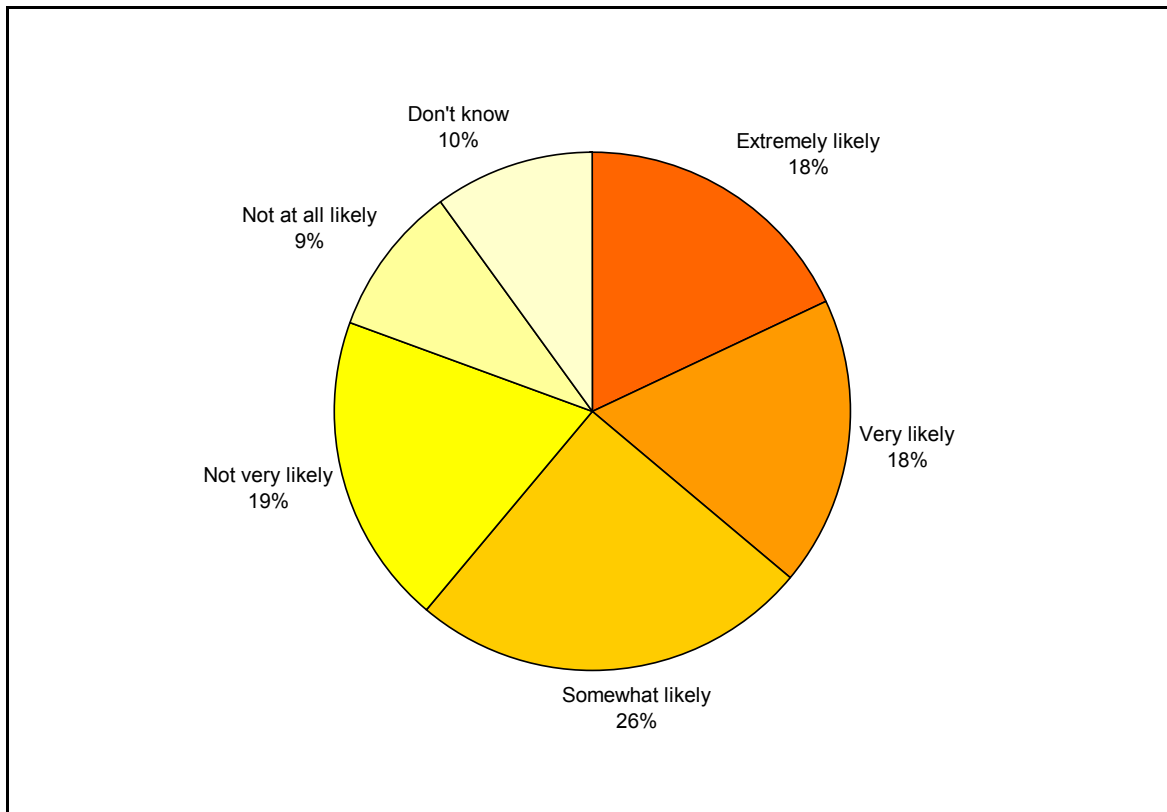
Results

Graduating Students

Findings. The likelihood that graduates will give future financial donations to their schools is shown in Figure 3.

Eighteen percent of graduates say they are extremely likely, and another 18% say they are very likely. In addition, 29% say they are somewhat likely. These data represent the behavioral intentions of graduates.

Figure 3. Likelihood of Future Financial Donations



The results of bivariate correlation analysis between study predictor variables and donation likelihood are shown in Table 2 and may be summarized as follows:

- **Demographic:** Age, gender, and race/ethnicity are not meaningfully correlated with the likelihood of future financial donations (in light of the low correlation coefficients and large sample sizes). Being 28–34 years of age, male, or a minority only slightly predisposes one to indicate a higher likelihood of a future financial donation.
- **Geographic:** School location and citizenship are weakly correlated with donation likelihood. Attending a U.S. school or being a U.S. citizen slightly predisposes one to higher donation likelihood.
- **Career:** Work experience, job search, and salary variables are weakly correlated with the likelihood of a future financial donation. Graduates with three but less than six years of work experience, those who have received or accepted a job offer, and those with higher post-MBA salaries and greater percentage increases in their salaries from pre-MBA levels are slightly more predisposed to greater donation likelihood. The post-MBA industry of employment is not related to the likelihood of a future financial donation.
- **Educational Experience:** Changes in core competencies are weakly and positively correlated with donation likelihood, but within the limited range, the correlation for changes in quantitative/

analytical skills is most notable. Satisfaction with benefits of the MBA, ratings of the overall value of the MBA, and ratings of the quality of the

school/program are moderately and positively correlated with donation likelihood. So, too, is the willingness to recommend one's school.

Table 2. Bivariate Correlations with Donation Likelihood

Category	Variable	Response	Pearson Correlation	<i>n</i>
Demographic	Age	27 and under	-0.034	1152
		28–34	0.079	3110
		35 and over	-0.064	970
	Gender	Male	0.036	3588
		Female	-0.036	1655
	Race/Ethnicity	Whites	-.072	2389
		Minorities	.072	607
Geographic	World Region: School Location	Canada	-0.068	556
		Asia	-0.045	125
		Europe	-0.088	445
		U.S.	0.128	4030
		Non-U.S.	-0.128	1126
	World Region: Citizenship	Canada	-0.048	427
		Asia	-0.044	793
		U.S.	0.107	3115
		Latin America	-0.008	207
		Europe	-0.071	506
Career	Work Experience	< 3 years	-0.078	966
		3, < 6 years	0.109	2109
		≥ 6 years	-0.047	2168
	Job Search	Not searching	-0.100	848
		Staying with current or previous employer	-0.089	1084
		Still searching	-0.052	1728
		Received/accepted offer	0.213	1583
	Post-MBA Industry	Consulting	0.012	680
		Energy and utilities	-0.015	137
		Finance and accounting	0.027	1355
		Health care/pharmaceuticals	0.001	318
		High technology	-0.014	468
		Manufacturing	0.025	196
Nonprofit/not-for-profit		-0.030	192	
Products & services	-0.021	1034		

Table 2. Bivariate Correlations with Donation Likelihood

Category	Variable	Response	Pearson Correlation	<i>n</i>	
Career (cont.)	Salary	Annual base salary—expected in first job after graduation	0.145	4286	
		Pre-post salary % change	0.049	3750	
Educational Experience	Change in Core Competencies	Managerial abilities	0.143	5243	
		Quantitative/analytical skills	0.205	5243	
		Communication skills	0.078	5243	
		Cultural/ethical sensitivity	0.113	5243	
	Satisfaction: Benefits of MBA	Preparation to get a good job in the business world	An increase in your career options	0.389	5243
			Credentials you desired	0.352	5243
			Opportunity to improve yourself personally	0.353	5243
			Opportunity for quicker advancement	0.404	5243
			Development of your management knowledge/technical skills	0.371	5243
			An increase in earning power	0.381	5243
			Opportunity to network and to form relationships with long-term value	0.421	5243
			Job security	0.369	5243
			Overall value of the MBA	0.517	5243
			Satisfaction: School/Program	Admissions	Career services
	Curriculum	0.440			5240
	Faculty	0.438			5234
	Program management	0.451			5220
	Student services	0.429			5132
	Fellow students	0.420			5238
	Willingness to recommend school	0.448			5243

Multiple regression analysis with backward elimination was used to develop a model that identifies variables that make unique contributions to the prediction of donation likelihood. All continuous variables from Table 2 were entered into the equation in their original form. Age, gender, race/ethnicity, job search, and post-MBA industry were treated as dummy variables with one variable in each set excluded. School location and citizenship are multicollinear, so both sets could not be used. The

decision was made to submit school location to the analysis—enrollment in a U.S. school—due to its high bivariate correlation with donation likelihood.

Table 3 shows the results of the multiple regression analysis. The model contains 14 variables that explain 39% of the variation in donation likelihood (multiple $R = .626$). Predictor variables in Table 3 are ranked in descending order of their standardized beta weights.

Table 3. Results of Multiple Regression Analysis: Donation Likelihood

Category	Variable	Standardized Beta Coefficient*
Educational experience	Overall value of the MBA	0.232
Educational experience	Opportunity to network and to form relationships with long-term value	0.104
Geographic	School location—U.S.	0.092
Educational experience	Willingness to recommend school	0.091
Educational experience	Satisfaction with student services	0.084
Educational experience	Satisfaction with program management	0.072
Educational experience	Satisfaction with faculty	0.066
Educational experience	Satisfaction with fellow students	0.066
Career	Search—received/accepted offer	0.065
Career	Search—staying with current or previous employer	-0.064
Demographic	Race/ethnicity: Minorities	0.060
Career	Annual base salary—expected in first job after graduation	0.058
Core Competencies	Quantitative/analytical skills	0.050
Career	Work experience: 3, < 6 years	0.050

*All beta coefficients significant at $p < .01$.

Results show that the most influential variable on donation likelihood is the overall value of the MBA. The second-most influential variable, though at less than one-half the impact as overall value, is respondent satisfaction that the MBA has given them the opportunity to network and to form relationships of long-term value. The next two variables have substantially equal effects: a U.S. school location and the respondents' willingness to recommend their schools. Ratings of four aspects of the school also enter the model—student services, program management, faculty, and fellow students. Having received or accepted a job offer has a similar effect as staying with the current or previous employer, although the former is positive, while the latter is negative. Being a minority has a substantially similar positive effect as the annual base salary expected in the first job after graduation. And the positive effect of improvement in quantitative/analytical skills is equal to that of having three, but less than six years of work experience.

Interpretation. The findings support prior research in several ways. First, there is a clear relationship between satisfaction with the student's educational experience and

donation likelihood. Nowhere is this clearer than in the powerful effect of ratings for the overall value of the MBA. Overall value has been shown elsewhere to depend upon composite measures of (1) satisfaction with MBA degree benefits and (2) satisfaction with the school/program (Bruce, 2006). It appears to be the best single measure in this study of the student's educational experience. Second, the findings indicate that satisfaction with student services, program management, fellow students, and faculty make contributions to predicting donation likelihood separate from those made by the overall value of the MBA. Each of these is an area in which relationships are formed while an MBA student. In the context of relationship marketing, there is social exchange; and it appears that satisfaction with that exchange enhances the willingness to make a future donation. Third, also from a marketing perspective, the social and economic transaction between the student (buyer) and the school/program (seller) reflects an exchange of values—the broader concept of a transaction developed by Kotler (1972). The student receives both social value, in terms of satisfying relationships, and economic value, in terms of career benefits. The influence

in the model of satisfaction with the opportunity to network and form relationships with long-term value is the clearest indication of the influence of social value received. Economic value is reflected by the positive effect of having received/accepted a job offer at the time of the study. Staying with the current or previous employer also has an economic effect on donation likelihood, but it is negative. This most likely stems from the speed with which career-switchers (being employed by new employers) achieve their objectives in the MBA program, compared with career enhancers (who stay with the same employer). Economic value received is also reflected in the positive effect of annual base salary in the first job after graduation, although salary likely also indicates financial capability.

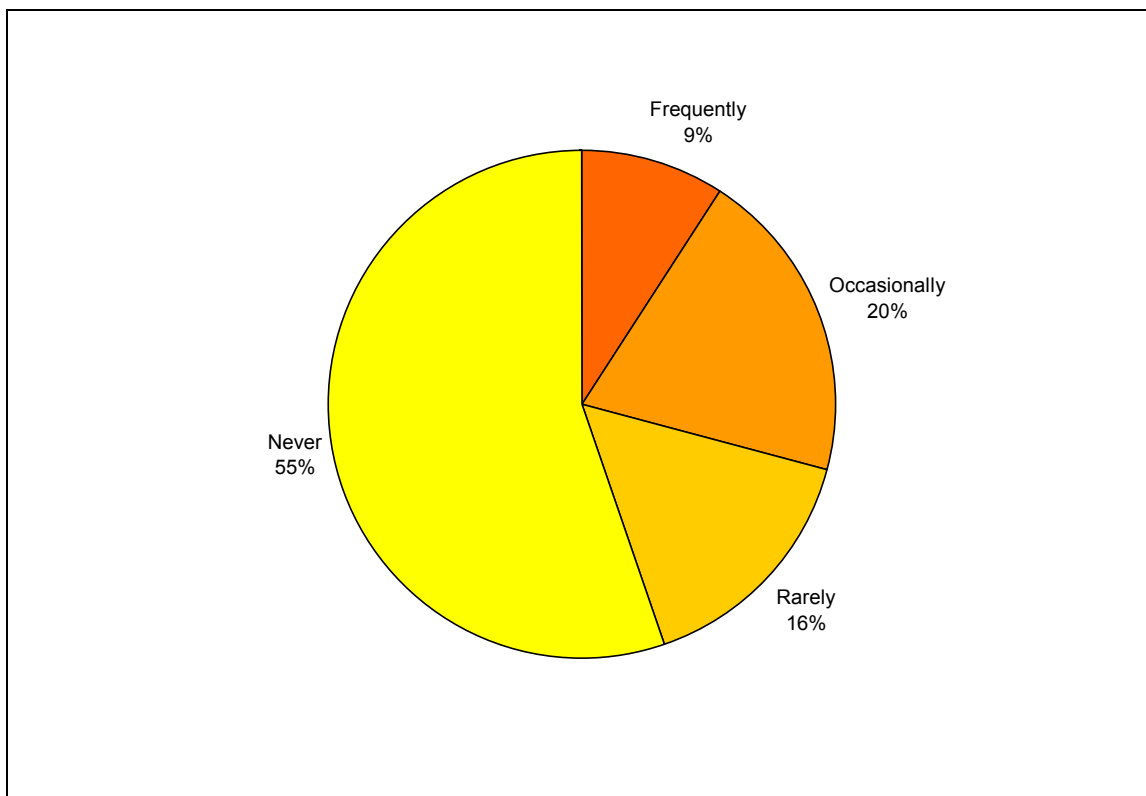
The willingness to recommend one's school also has a unique, positive impact on donation likelihood. This variable reflects the respondent's willingness to engage in promotional behavior—behavior that is both social and supportive. This effect may result from aspects of school satisfaction not captured by other variables in the model

(e.g., curriculum), from identification with the school, or from a tendency to engage in reciprocal behavior. The positive effect of being a student in a U.S. school may reflect cultural differences in charitable giving or in the fund-raising efforts of U.S. schools. The positive effect of having three, but less than six years of work experience may also reflect the influence of career-switching versus career-enhancing motivations for pursuing the MBA. In this sample, 61% of graduates with three, but less than six years of work experience are career switchers, contrasted with 47% of those with six or more years of work experience. Finally, the unique, positive effect of being a minority may result from higher levels of involvement, commitment, and organizational identification.

Alumni

Findings. The actual giving behavior of alumni is shown in Figure 4. Twenty-nine percent report that they frequently or occasionally give financial donations to their business schools.

Figure 4. Frequency of Alumni Giving



Do the variables that predict the likelihood of financial donations at graduation also predict alumni giving behavior? And what is the role of alumni involvement in explaining alumni giving behavior? To answer these questions, a multiple regression analysis (with backward elimination) was conducted by submitting to the analysis the variables shown in Table 4, which also shows the bivariate correlations of each variable with the actual giving behavior of alumni. Demographic, geographic, and career variables are measurements at the time of

graduation, as are the variables measuring satisfaction with the school/program and the overall value of the MBA. Post-MBA salary (measured at graduation) is replaced with the respondents' current annual salary at the time of the alumni survey. Satisfaction with MBA benefits (at graduation) is replaced with satisfaction with the same benefits at the time of the alumni survey. Data on changes in core competencies are not included because these data were collected after the alumni survey. Finally, alumni involvement is measured as discussed earlier.

Table 4. Bivariate Correlations with Alumni Giving Behavior

Category	Variable	Response	Pearson Correlation	<i>n</i>
Demographic	Age	27 and under	-0.049	554
		28–34	0.081	1295
		35 and over	-0.051	326
	Race/ethnicity	Whites	-0.023	964
		Minorities	0.023	217
Geographic	World Region: School Location	U.S.	0.176	1621
		Non-U.S.	-0.176	515
Career	Work Experience	< 3 years	-0.070	340
		3, < 6 years	0.076	903
		≥ 6 years	-0.024	924
	Job Search	Staying with current or previous employer	-0.112	290
		Still searching	-0.116	895
		Received/accepted offer	0.209	616
	Salary	Current annual salary	0.195	1026
Educational Experience	Satisfaction: Benefits of MBA	Preparation to get a good job in the business world	0.286	2167
		An increase in your career options	0.276	2167
		Credentials you desired	0.265	2167
		Opportunity to improve yourself personally	0.207	2167
		Opportunity for quicker advancement	0.284	2167
		Development of your management knowledge/technical skills	0.235	2167
		An increase in earning power	0.288	2167
		Opportunity to network and to form relationships with long-term value	0.305	2167
		Job security	0.255	2167
		Overall value of the MBA	0.246	2167

Table 4. Bivariate Correlations with Alumni Giving Behavior

Category	Variable	Response	Pearson Correlation	<i>n</i>
Educational Experience (cont.)	Satisfaction: School/Program	Student services	0.219	2050
		Faculty	0.246	2163
		Program management	0.264	2113
		Fellow students	0.243	2156
		Willingness to recommend school	0.212	2167
Alumni Involvement			0.475	2167

As shown in Table 4, age and race/ethnicity are not meaningfully correlated with actual giving behavior, as was the case in the analysis of donation likelihood. Being an alumnus from a U.S. school is weakly and positively correlated with alumni giving, just as it was with donation likelihood. Work experience, job search and salary are also weakly correlated with actual giving behavior, just as they were with donation likelihood—and in the same directions. Satisfaction with the benefits of the MBA and ratings of the school/program are positively correlated with alumni giving, although each is correlated less strongly than in the analysis of donation likelihood. The same is true of ratings of the overall value of the MBA at graduation and the respondent's willingness to

recommend their school. Alumni involvement is correlated more strongly with alumni giving behavior than any of the other variables analyzed.

Results of the multiple regression analysis are reported in Table 5 (multiple $R = .545$). As indicated by the beta coefficients, the predictor with the strongest effect on alumni giving is alumni involvement. Alumni involvement has about 2.7 times the effect of the next most powerful predictor—a U.S. school location—and about 4.7 times the effect of ratings (at graduation) of the overall value of the MBA. Alumni satisfaction that the MBA has given them an opportunity to network and form relationships with long-term value and the credentials they desired enter the model with only slightly lower effects.

Table 5. Results of Multiple Regression Analysis: Alumni Giving

Category	Variable	Standardized Beta Coefficient
Involvement	Alumni involvement	0.419*
Geographic	School location—U.S.	0.175*
Educational experience	Overall value of the MBA	0.089**
Educational experience	Opportunity to network and to form relationships with long-term value	0.081***
Educational experience	Credentials you desired	0.079***

* $p < .001$; ** $p = .05$; *** $p = .06$.

When the model results for donation likelihood (Table 3) are compared with the results for alumni giving (Table 5), as well as with the bivariate correlations for possible predictors from Table 4, one can reasonably ask: What happened to the predictive power of the respondents'

willingness to recommend their schools; satisfaction with student services, program management, faculty, and fellow students; race/ethnicity (minorities); and the career predictors (work experience, job search, and salary)? A preliminary answer to that question can be formulated by

looking at the bivariate correlations of Table 4 predictors with alumni involvement. These results are shown in Table 6. Examination of Table 6 shows that many of the variables that dropped out of the alumni giving model in Table 5 are related positively to alumni involvement: having three, but less than six years of work experience; being a minority; having received/accepted an offer when a graduating student; current annual salary; satisfaction

with benefits of the MBA; satisfaction with student services, faculty, program management, and fellow students; the overall value of the MBA; and the willingness to recommend one's school. The only anomaly is a U.S. school location, which positively predicts alumni giving in the Table 5 alumni giving model, but negatively predicts alumni involvement.

Table 6. Bivariate Correlations with Alumni Involvement				
Category	Variable		Pearson Correlation	n
Demographic	Age	27 and under	-0.027	554
		28-34	0.073	1295
		35 and over	-0.066	326
	Race/ethnicity	Whites	-0.114	964
		Minorities	0.114	217
Geographic	World Region: School Location	U.S.	-0.051	1621
		Non-U.S.	0.051	515
Career	Work Experience	< 3 years	-0.088	340
		3, < 6 years	0.098	903
		≥ 6 years	-0.033	924
	Job Search	Staying with current or previous employer	-0.155	290
		Still searching	-0.140	895
		Received/accepted offer	0.268	616
Salary	Current annual salary	0.206	1026	
Educational Experience	Satisfaction: Benefits of MBA	Preparation to get a good job in the business world	0.283	2167
		An increase in your career options	0.274	2167
		Credentials you desired	0.216	2167
		Opportunity to improve yourself personally	0.192	2167
		Opportunity for quicker advancement	0.281	2167
		Development of your management knowledge/technical skills	0.216	2167
		An increase in earning power	0.293	2167
		Opportunity to network and to form relationships with long-term value	0.379	2167
		Job security	0.263	2167
		Overall value of the MBA	0.193	2167

Table 6. Bivariate Correlations with Alumni Involvement

Category	Variable	Pearson Correlation	n
Educational Experience (cont.)	Satisfaction: Student services	0.167	2050
	Satisfaction: Faculty	0.212	2163
	Satisfaction: Program management	0.217	2113
	Satisfaction: Fellow students	0.235	2156
	Satisfaction: Willingness to recommend school	0.188	2167

It now becomes clear that in order to understand alumni giving, one must understand alumni involvement. Multiple regression analysis (backward elimination) is again used to further this understanding. The results are shown in Table 7 (multiple $R = .49$). Satisfaction with the opportunity to network and to form relationships with long-term value, with a relatively low effect in the alumni giving model, is the most powerful predictor of alumni involvement. This is followed in predictive power by two career variables—the respondents' current annual salary and whether the respondent received or accepted an offer at the time of

graduation. Next in predictive power is the respondents' satisfaction that the MBA has given them job security. Staying with the current or previous employer at graduation negatively predicts alumni involvement, just as it earlier negatively predicted the donation likelihood of graduating students. And being a minority positively predicts alumni involvement, just as it did for donation likelihood. Satisfaction with faculty positively predicts alumni involvement, but the beta coefficient is only marginally significant.

Table 7. Results of Multiple Regression Analysis: Alumni Involvement

Category	Variable	Standardized Beta Coefficient
Educational experience	Satisfaction with opportunity to network and to form relationships with long-term value	0.255*
Career	Current annual salary	0.157*
Career	Search—received/accepted offer	0.136*
Educational experience	Satisfaction with job security	0.116**
Career	Search—staying with current or previous employer	-0.107**
Geographic	School location—U.S.	-0.098**
Demographic	Minorities	0.081***
Educational experience	Satisfaction with faculty	0.069****

* $p < .001$; ** $p < .01$; *** $p < .05$; **** $p = .08$.

Interpretation. Alumni involvement has a powerful effect on actual donation behavior. This is consistent with the results of research discussed earlier, especially the work of Heckman and Guskey (1998). Being an alumnus from a U.S. school also positively impacts alumni giving, although it negatively predicts alumni involvement (Tables 6 and 7). It appears that the negative effect on involvement is easily outweighed by a cultural difference

in donation propensity for graduates from U.S. schools. Other variables in the alumni giving model in Table 5 are consistent with literature on the relationship between satisfaction with the university experience and donation behavior. These variables are ratings of the overall value of the MBA, satisfaction with the opportunity to network and to form relationships of long-term value, and receipt of desired credentials.

In light of the importance of alumni involvement on donation behavior, the findings on predictors of alumni involvement (Table 7) are of particular interest. Satisfaction with the opportunity to network and to form relationships of long-term value is the key predictor of alumni involvement. As discussed earlier, the interpersonal ties that are created while one is a student—relationships with faculty, administrators, and fellow students—strongly influence donation behavior. In addition, in this analysis, current annual salary and job search variables (whether students received/accepted an offer or were staying with the current employer at graduation) do not directly affect donation behavior. However, these variables do affect alumni involvement. The same is true of alumni satisfaction that the MBA has given them job security. Job security is not a direct predictor of alumni giving, but a significant predictor of alumni involvement. It is possible to view job security as permissive: it gives one the freedom to become involved. With regard to the positive impact of being a minority on alumni involvement, the findings support the earlier speculation in the discussion of donation likelihood that being a minority *does* result in higher levels of involvement.

Discussion

Twenty-nine percent of MBA alumni in this study made financial donations to their schools either frequently or occasionally. This is more than twice the 12.4% of alumni in the United States who donated to their alma maters in 2005, which should be encouraging news to business schools. Data from the mba.com Registrants Survey (Schoenfeld, 2005) show that students enrolled in MBA programs estimate that 29% of the financing of their MBA education will come from loans.¹ Given that alumni in the present study are relatively recent graduates who may still be repaying loans, the 29% who made frequent or occasional donations is even more encouraging.

The results of the present study strongly support prior research on the relationship between satisfaction with the educational experience and donation behavior, especially donation likelihood while still an MBA student. Students' evaluations of the overall value of the MBA exert the strongest influence on donation likelihood. But donation

likelihood is also influenced by satisfaction with specific aspects of program delivery—satisfaction with student services, program management, faculty, and fellow students. Fellow students are part of program delivery, just as faculty are, because of the learning that occurs between students. The donation likelihood model shows that satisfaction with each aspect of program delivery makes a unique contribution to the likelihood of a future financial donation. This suggests the important roles—and responsibilities—of student services directors, MBA program directors, admissions directors, and faculty in the production and delivery of an educational experience with the potential to positively influence donation likelihood. The same is true of career services directors who contribute to whether the student has received or accepted an offer, another independent predictor of donation likelihood. In short, no area of MBA program administration and delivery is left untouched by the donation likelihood model.

The responsibilities of admissions directors deserve special mention. They must make selections decisions that result in a class that can handle the academic demands of the MBA program. But their responsibilities also include crafting a class (through evaluating multiple selection criteria) that will enhance the satisfaction of fellow students with each other. This includes not only satisfaction with the academic qualities of their peers, but also with interpersonal qualities conducive to the formation of long-term relationships. The opportunity to network and to form relationships of long-term value makes a unique and important contribution to the prediction of donation likelihood and is the strongest predictor of alumni involvement.

The importance of satisfaction with the opportunity to network and to form relationships of long-term value in both the donation-likelihood and alumni-involvement models supports the relevance of relationship-marketing concepts to the management of the school-student and school-alumnus relationship. A long-term orientation is the key to relationship marketing. That is, from the time a potential student first interacts with admissions personnel, through their time as a student, and into their time as an alumnus, there is an ongoing relationship-development process—a process that can lead to organizational identification and its positive impact on alumni giving. This is evident, as discussed above, in the relationships that exist among fellow students, between administrators

¹ Based on a supplemental analysis of survey data conducted by G. Schoenfeld.

and students, and between faculty and students. The existence of satisfaction with the faculty-student relationship in both the donation-likelihood and alumni-involvement models suggests that it is not only the educational component of the relationship that is important, but also the personal component. This is consistent with the earlier discussion of how the student-faculty relationship affects future helping behavior.

The importance of alumni involvement in alumni giving takes on special significance in the context of relationship marketing. In a sense, MBA alumni directors are “directors of alumni involvement.” A short-term orientation is neither appropriate nor possible. That is, alumni directors likely begin their relationships with alumni after these alumni are well into a long-term relationship with the school. As such, their capacity to “direct” either alumni involvement or alumni giving will be enhanced or constrained by what has already happened in the school-student relationship. In other words, alumni directors operate in an environment that is partially defined by forces evident in the donation likelihood model (Table 3), the alumni giving model (Table 5), and the alumni involvement model (Table 7). A clear example of this is the way in which a student’s staying with the same or previous employer at graduation depresses both donation likelihood and alumni involvement. Among graduates from the MBA classes of 2004 and 2005, 47% and 48% of graduates from part-time and executive MBA programs, respectively, continued to be employed by their current or previous employer, contrasted with 8% of graduates from full-time programs.² This suggests challenges for alumni directors in part-time and executive MBA programs that may not be faced by their counterparts in full-time MBA programs. On the other hand, as the analyses show, this employment decision is only one factor influencing donation likelihood and alumni involvement. For example, Edgington and Schoenfeld (2004b), in their analysis of the same alumni data used in the present study, pointed out, “...for all program types, respondents who are satisfied with their networking opportunities are twice as likely to make financial donations compared with respondents who are not satisfied with their networking opportunities” (p. 15).

The results of this study should help deans and other administrators understand the complex processes that lead to donation likelihood, alumni involvement, and alumni giving. Schools likely find themselves differentially affected by these processes. Consideration of how each model affects the individual school should aid in the development of fund-raising programs that are responsive to specific conditions and realistic in a relationship-marketing context.

Limitations and Future Research

Like any study, this one has its limitations. The cross-sectional design employed to study donation likelihood limits casual inferences, so the results are based on what the analysis suggests, rather than what it proves. This problem was corrected somewhat in the analyses of alumni involvement and alumni giving, which reflect a mixture of longitudinal and cross-sectional data.

Data on the donation behavior of alumni are from a study conducted in 2004, while data on donation likelihood of graduating students are from a study conducted in 2005. It was not possible, then, to examine longitudinally how donation likelihood at graduation ultimately affects donation behavior. This can be remedied by the inclusion of the donation behavior question in future surveys of alumni so that the intentions of 2005 graduates can be compared with their actual donation behavior.

Prior research and results from the present study suggest that organizational identification and/or identity salience influence alumni involvement and alumni giving. Future research on donation likelihood and donation behavior of MBA students and alumni should include measures of these identification concepts. Not only are they likely to have an important intervening effect between the educational experience and donation behavior, but they also have intuitive appeal as one thinks about the bonds that may (or may not) exist between alumni and their alma maters.

Author

Grady D. Bruce is Professor of Marketing, Emeritus, California State University, Fullerton.

² Based on supplemental analysis conducted by the author using data from Global MBA® Graduate Surveys 2004 and 2005.

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

Mary Joyce, Professor of Marketing, California State University, Fullerton, for her insights into the literature; Mark I. Alpert, Foley's Federated Inc. Centennial Professor in Retailing, The University of Texas at Austin, for advice on the analysis; Lawrence M. Rudner, Vice President, Research and Development, GMAC®, for comments on an earlier version of this manuscript; and

Veronica Sinz, Research Writer/Editor, GMAC®, for writing and editorial services.

The author is grateful to the Graduate Management Admission Council® and the Management Education Research Institute for access to data used in this paper. 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®.

A version of this paper was presented as part of the Public & Nonprofit Division of the 2007 Academy of Management Annual Meeting in Philadelphia, PA, August 7, 2007.

References

- Andreoni, J. (1990). "Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving," *Economic Journal* (100), 464-477.
- Arnett, D.B., German, S.D., & Hunt, S.D. (2003). "The Identity Salience Model of Relationship Marketing Success: The Case of Nonprofit Marketing," *Journal of Marketing* 67 (April), 89-105.
- Arnett, D.B., Wittmann, C.M., & Wilson, B. J., III (2003). "Encouraging Future Helping Behaviors: The Role of Student-Faculty Relationships in Higher Education Marketing," *Journal of Marketing for Higher Education* 13(1/2), 127-157.
- Becker, G.S. (1974). "A Theory of Social Interactions," *Journal of Political Economy* (82), 1063-1073.
- Beller, K.J. (1982). *A Study of Predictors of Alumni Philanthropy in Private Universities* (Doctoral Dissertation, University of Connecticut). Dissertation Abstracts International, 43, 43/02A.
- Belfield, C.R., & Beney, A.P. (2000). "What Determines Alumni Generosity? Evidence for the UK," *Education Economics* 8(1), 65-80.
- Bruce, G. (2006). "Understanding the Value of the MBA: A Program-Type Comparison," Paper delivered before the annual meeting of the Academy of Management, Management Education Division, August 15, 2006. Available at http://www.gmac.com/gmac/ResearchandTrends/Tools/RR0601_UnderstandingValue.htm.
- Clotfelder, C.T. (2003). "Alumni Giving to Elite Private Colleges and Universities," *Economics of Education Review* 22(2), 109-120.
- Dwyer, F.R., Schurr, P.H., & Oh, S. (1987). "Developing Buyer-Seller Relationships," *Journal of Marketing* 51 (April), 11-27.
- Edgington, R., & Schoenfeld, G. (2004a). *MBA Alumni Perspectives Survey, September 2004 Overall Report*. Available at: <http://www.gmac.com/NR/exeres/8E6D9A51-B02A-46EE-B4C5-C726954B866A.htm>.
- Edgington, R., & Schoenfeld, G. (2004b). *MBA Alumni Perspectives Survey, September 2004: Executive Summary of Key Findings*. Available at <http://www.gmac.com/gmac/ResearchandTrends/Tools/MBAAlumniSept2004ExecSum.htm>.
- Heckman, R., & Guskey, A. (1998). "The Relationship between Alumni and University: Toward a Theory of Discretionary Collaborative Behavior," *Journal of Marketing Theory and Practice*, 6(2), 97-112.

- Hueston, F.R. (1992). "Predicting Alumni Giving: A Donor Analysis Test," *Fund Raising Management*, July, 1992, 19-22.
- Kaplan, A.E. (2006). "Preliminary Report of Voluntary Support of Education Survey," Council for Aid to Education. Available at <http://www.cae.org/content/pdf/VSE2005SurveyPRwithTables.pdf>.
- Keating, B., Pitts, R., & Appel, D. (1982). "United Way Contributions: Coercion, Charity, or Economic Self-Interest?" *Southern Economic Journal* 47 (January), 816-823.
- Kotler, P. (1972). "A Generic Concept of Marketing," *Journal of Marketing* 36(2), 49-56.
- Lippincott, J. (2006). "Comments on Results of the 2005 Voluntary Support of Education Survey," Council for Advancement and Support of Education. Available at <http://www.case.org/Content/PressRelease/Display.cfm?CONTENTITEMID=5861>.
- Hueston, F. R. (1992). "Predicting Alumni Giving: A Donor Analysis Test," *Fund Raising Management* 23, 18-24.
- Johnson, J. W., & LeBreton, J. M. (2004). History and use of relative importance indices in organizational research. *Organizational Research Methods*, 7, 238-257.
- Jones, D. (2003). "Policy Alert: State Shortfalls Projected Throughout the Decade," National Center for Public Policy and Higher Education. Available at http://www.highereducation.org/pa_0203/.
- Mael, E., & Ashforth, A.E. (1992). "Alumni and Their Alma Mater: A Partial Test of the Reformulated Model of Organizational Identification," *Journal of Organizational Behavior* 13, 103-123.
- McAlexander, J.H., & Koenig, H.F. (2001). "University Experiences, the Student-College Relationship, and Alumni Support," *Journal of Marketing for Higher Education* 10(3), 21-43.
- McAlexander, J.H., Koenig, H.F., & Schouten, J.W. (2004). "Building a University Brand Community: The Long-Term Impact of Shared Experiences," *Journal of Marketing for Higher Education* 14(2), 61-79.
- Nunnally, J.C. (1978). *Psychometric Theory*, 2nd edition, New York: McGraw-Hill.
- Okunade, A.A. (1993). "Logistic Regression and Probability of Business School Alumni Donations: Micro-data Evidence," *Education Economics* 1(3), 243-259.
- Okunade, A.A., Wunnava, P.V., & Walsh, R., Jr. (1994). "Charitable Giving of Alumni: Micro-data Evidence for a Large Public University," *American Journal of Economics and Sociology* 53(1), 73-84.
- Okunade, A.A. (1996). "Graduate School Alumni Donations to Academic Funds," *American Journal of Economics and Sociology* 55(2), 213-230.
- Okunade, A.A., & Berl, R.L. (1997). "Determinants of Charitable Giving of Business School Alumni," *Research in Higher Education* 38(2), 201-214.
- Peterson, R.A. (1994). "A Meta-analysis of Cronbach's Coefficient Alpha," *Journal of Consumer Research* 21(2), 381-391.
- Sen, A.K. (1978). "Rational Fools: A Critique of the Behavioral Foundations of Economic Theory." In H. Harris (Ed.), *Scientific Models and Men*, (London: Oxford University Press), 317-344.
- Schoenfeld, G. (2005). *MBA.com Registrants Survey Comprehensive Data Report*. Available at: <http://www.gmac.com/gmac/ResearchandTrends/Tools/2005RegistrantsDataReport.htm>.
- Stutler, D., & Calvario, D. (1996). "In Alumni Support, Satisfaction Matters," *Fund Raising Management* 27(9), 12-13.

Taylor, A.L., & Martin, J.C., Jr. (1995). "Characteristics of Alumni Donors and Non-donors at a Research I Public University," *Research in Higher Education* 36(3) 283-302.

Yoo, J.H., Harrison, W.B. (1989). "Altruism in the "Market" for Giving and Receiving: A Case of Higher Education," *Economics of Education Review* (8), 367-376.

Appendix

Table A-I. Factor Analysis of Pre-MBA Core Competencies				
Pre-MBA Core Competency	Component			
	1	2	3	4
Leadership skills	.741	.061	.321	.174
Ability to make decisions with imperfect information	.689	.360	.178	.181
Interpersonal skills	.470	-.051	.514	.375
Oral communication skills	.423	.059	.734	.143
Written communication skills	.099	.203	.843	.204
Ability to think strategically	.607	.416	.210	.188
Ability to adapt/change to new situations	.566	.202	.220	.429
Creative problem-solving skills	.500	.557	.215	.197
Initiative/risk-taking ability	.762	.182	.089	.192
Implementation/project management skills	.636	.317	.170	.115
Cross-cultural sensitivity and awareness	.194	.111	.159	.833
Ethical awareness	.222	.177	.197	.748
Ability to think analytically	.262	.819	.206	.124
Ability to integrate information from a wide variety of sources	.425	.491	.390	.238
Quantitative skills	.129	.851	-.067	.076

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
 Rotation converged in 6 iterations; 68% of variance explained
 Source: Global MBA® Graduate Survey 2005
 Components: (1) Managerial abilities; (2) Quantitative/analytical skills; (3) Communication skills; (4) Cultural/ethical sensitivity.

© 2007 Graduate Management Admission Council® (GMAC®). All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, distributed or transmitted in any form by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of GMAC®. For permission contact the GMAC® legal department at legal@gmac.com.

Creating Access to Graduate Business Education®. Global MBA®, GMAC®, GMAT®, Graduate Management Admission Council®, and Graduate Management Admission Test® are registered trademarks of the Graduate Management Admission Council® in the United States and other countries.