IMPACT OF MANAGEMENT EDUCATION ON STUDENTS' VALUE SYSTEMS: A LONGITUDINAL STUDY

The impact of MBA education on value systems was studied using a sample of 165 students. Results show that self-oriented values like a comfortable life and pleasure become more important and others-oriented values like being helpful and responsible become less important over two years. Also, gender and functional specialization appear to moderate the impact.

Management education is traditionally seen as a means to facilitate learning of job-related behaviors in order to improve performance. The focus has been on teaching facts, modifying attitudes and behaviors, and developing skills. Attention has been devoted to analyzing whether knowledge that is imparted in business schools should focus more on theory or on applications (Huff, 2000). Human values as a component of management education continues to be a fairly ignored domain of investigation. The emphasis of education has generally been more on knowledge production than on value inculcation. Values have been fairly ignored by management education programs, most probably because values in general are relatively more difficult to influence or modify. Values, however, form the core of our personality, and influence the choices we make, the people we trust, the appeals we respond to, and the way we invest our time and energy (Posner & Schmidt, 1992). It is necessary that values be given their due importance within the function of management education.

The changing environment that business schools face has made it necessary to have a look at the impact of education on students (Rynes & Trank, 1999). There has however been a shortage of empirical studies in this area, though there is widespread recognition of the importance of strengthening the collegiate business education environment (Pearce II, 1999). Frost and Fukami (1997) in their introduction to the special research forum on teaching effectiveness in the organizational sciences called for more empirical research on the educational process. The study reported in this paper looked at the change in value systems of MBA students over the entire period of two years of the program. It is only by studying how management education currently impacts the value systems of students that we can deliberate upon the objectives of management education in future.

Value System

Rokeach (1973: 5) defined a value as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence." A belief concerning a desirable mode of conduct is an

instrumental value and a belief concerning a desirable end-state of existence is a terminal value. If a person values freedom as an end-state of existence, it means that he or she believes that freedom is preferable to slavery. Rokeach considered terminal values to be of two kinds—those that are self-focused called personal values, and those that are others-focused called social values. Instrumental values are also of two kinds—those which when violated arouse pangs of conscience or feelings of guilt for wrongdoing called moral values, and those which when violated lead to feelings of shame about personal inadequacy called competence or self-actualization values.

Values can be looked upon as being hierarchical in nature, leading to the idea of a value system. Rokeach (1973: 5) defined a value system as "an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance." A set of rank-ordered values is called a value system. Values are heavily intertwined and therefore looking at a person's values separately and independently of one another cannot meaningfully explain attitudes and behaviors. That a person values happiness does not say much that is unique about that person, for most human beings value happiness. What matters is how much a person values happiness in comparison with the other things that he or she values. If one knows that a person values happiness more than self-respect, one is able to have a more accurate idea of that person. Only the rank ordering of values or the value system can capture the unique value configuration of an individual. It is not the values by themselves that matter, but it is the hierarchical value system that matters (Rokeach & Ball-Rokeach, 1989).

Values are the most abstract of the social cognitions, and hence they serve as prototypes from which attitudes and behaviors are manufactured. Cognitions, and therefore values, also guide individuals about which situations to enter and about what they should do in those situations. Within a given situation, the influence flows from abstract values to midrange attitudes to specific behaviors. This sequence is called value-attitude-behavior hierarchy (Homer & Kahle, 1988). In specific situations, only a subset of values is made active, those that are seen as relevant to the salient alternative actions. For example, valuing equality might favor donating to charity and oppose purchasing a luxury item, whereas valuing a comfortable life might have the reverse influence. Not all activated values have equally strong impacts on behavior. The strength of impact depends on importance of the value in the person's hierarchy. The choice of a behavior alternative is guided by the interplay of the influences of the activated values. It is the relative importance for a person of the values favorable to and opposed to a behavior that guides action (Schwartz & Inbar-Saban, 1988).

Value systems have been found to predict several outcomes including shopping selections (Homer & Kahle, 1988) and weight losses (Schwartz & Inbar-Saban, 1988). Values influence job choice decisions, job satisfaction, and commitment (Judge & Bretz, 1992). Blickle (2000) found that work values predicted the frequency of use of influence strategies measured one year later. The values of achievement, associates (defined as "work in which you are one of the gang"), creativity, intellectual stimulation, and variety were positively related to rational persuasion. Also, career and management (defined as "have authority over others") were positively related to pressure strategy; prestige was positively related to ingratiation; and career and prestige were positively related to upward appeal. Since management is essentially an influencing activity, values would predict managerial choices.

Several studies have demonstrated empirically how values affect personal and organizational effectiveness (Meglino & Ravlin, 1998; O'Reilly, Chatman & Caldwell, 1991). Perceptual organization plays a role in linking values to choice behavior (Ravlin & Meglino, 1987). Values influence the selection and interpretation of external stimuli, and thus impact one's perceptual process. The future attitudes and behaviors of MBA graduates would therefore depend on their value systems when they leave business schools. It is thus worthwhile looking at how management education changes the value systems of MBA students.

Changing Value Systems

Value systems tend to form early in life and are very stable. Major longitudinal studies of values have in general showed their remarkable stability (Rokeach & Ball-Rokeach, 1989). Lubinski, Schmidt, and Benbow (1996) observed that in a sample of gifted adolescents, values were remarkably stable over a 20-year period. Dominant value orientation either remained unchanged, or moved to an adjacent value. Oliver (1999) found that the overall personal value structure of the American manager did not change in three decades.

Values are enduring beliefs, and therefore are very difficult to change. One who values obedience is unlikely to start believing that it is preferable to be disobedient than be obedient. Value systems, however, can be changed with relatively greater ease. Change in value system requires rearrangement of the relative importance given to various values. For example, one who values pleasure more than self-respect could be convinced over a period of time that self-respect is more important than pleasure. Studies have demonstrated that the relative importance of different values to a person can be changed (Rokeach, 1973; Schwartz & Inbar-Saban, 1988). Ball-Rokeach, Rokeach and Grube (1984) made an effort to change the rankings of the equality, freedom, and aesthetics values, utilizing a broadcast television program. Rankings of the targeted values changed for those who watched, thus suggesting that adult socialization, such as that which occurs through the media, or through organizational processes, can in fact change values in a meaningful way.

The method of value self-confrontation can be used to change peoples' value systems and thereby their behavior. This method has been applied successfully to influence such behaviors as contributing money to social welfare programs, and supporting anti-pollution measures. Schwartz and Inbar-Saban (1988) demonstrated that people's behavior can be changed by changing the value priorities underlying that behavior. Using an experimental manipulation, they found that an increase in the relative importance of wisdom over happiness (both terminal values) resulted in significant amount of weight loss. The first step in value self-confrontation is to get people to become aware of their value systems. Learning that there is a contradiction between one's value priorities and one's ideal self-conception as a moral or competent person gives rise to self-dissatisfaction with one's value rankings. The ideal self-conception is based on the value system of a positive reference group. In order to reduce self-dissatisfaction, people change their value systems and consequently their value-related attitudes and behaviors. They try to make these elements more consistent with the self-conceptions as moral and competent persons that they have learned to prefer.

It is thus possible to change value systems over a period of time using an appropriate intervention. The MBA program is one such intervention. Management education revolves around social issues and interpersonal relationships in a way that could conflict with business students' pre-existing values (Rynes & Trank, 1999). The MBA program, besides exposing students to a wide range of perspectives, also adopts an application-oriented approach that could result in students questioning some of their existing beliefs. The two years of education as an MBA student would therefore result in a change in value system. This being an exploratory study, I did not hypothesize any specific nature or direction of change, but only expected an overall change in value system at the end of two years.

Methodology

Data for this study was collected from two consecutive batches of students of a two-year residential MBA program at a prominent business school in India. The students were requested to answer a survey to measure their terminal and instrumental value systems twice—while entering the program, and again while graduating from the program after two years. The total number of

entering students in a year was 130, and initial data was collected from a total of 252 students from both the years together. Only 173 students from both the years together answered the survey at the time of graduation. The final usable matched sample size was 165 after excluding responses that had partial missing values. Of the 165 students, 64 were females and 101 were males; 78 students specialized in human resources (HR) and 87 students specialized in functions other than HR.

Rokeach's Value Survey

I used Rokeach's (1973) Value Survey for measuring value system. This is the most commonly used instrument for measuring value system. It has two lists of values arranged alphabetically—one consisting of 18 terminal values and the other consisting of 18 instrumental values. Each value is presented along with a brief definition in parenthesis and respondents are asked to arrange the values in each set in order of importance to and as guiding principles in their life, thereby recording their value systems. The Value Survey has been found to be both reliable and valid. All the values are socially desirable ones, but no significant relationship has been found between value rankings and the tendency to respond in a socially desirable manner. Schwartz and Bilsky (1990) did a survey based on Rokeach's 36-value English version, which lent evidence for the universality of elements of a theory of the content and structure of human values. Shopping selections (Homer & Kahle, 1988), and weight losses (Schwartz & Inbar-Saban, 1988) were predicted by the importance ratings of values.

Data Analysis

The differences in value rankings between the time of entering and the time of leaving the MBA program were analyzed in two different ways. The first approach adopted was to arrive at two aggregate value systems (one terminal and one instrumental) for each of the two time periods and then compare them across the two time periods. The median rank assigned to each terminal value by the students while entering the MBA program was calculated. The values were arranged in ascending order of median ranks to obtain the aggregate terminal value system at the time of entry (where two values had the same median rank, the mean was used to break the tie). The aggregate terminal value system at the time of leaving after two years was similarly calculated. The entire process was repeated to get the aggregate instrumental value systems at the time of entry and at the time of leaving. The second approach used was to calculate the change in rank for each value over two years and test if the change was significantly different from zero.

Results

The aggregate terminal and instrumental value systems of students while entering and while leaving the MBA program are given in Table 1. The largest difference (at least 2 in median and 2 in aggregate rank) in value rankings between the two periods was found for four terminal values—a comfortable life, an exciting life, pleasure, and family security—and for two instrumental values—capable, and self-controlled. The relative importance given to a comfortable life, an exciting life, pleasure, and being capable increased over the two-year period, while the relative importance given to family security and being self-controlled decreased.

A comparison of the terminal value systems instead of individual value rankings indicated that students at the time of leaving the program considered an exciting life to be more important than inner harmony, wisdom, true friendship, family security, social recognition, and mature love, while their relative priority for an exciting life was just the reverse when they joined the program. Similarly, students at the time of leaving the program considered pleasure to be

more important than a world at peace, a world of beauty, and national security, while their relative priority for pleasure was just the reverse when they joined the program.

 ${\bf Table~1}$ ${\bf Aggregate~Terminal~and~Instrumental~Value~Systems,~Before~and~After}$

Rank Value	Med	M		Med	M
Terminal Value, Before			Terminal Value, After		
1 Self-respect	5	5.45	A sense of accomplishment	4	5.45
2 A sense of accomplishment	5	5.76	Happiness	5	5.81
3 Happiness	6	6.08	Self-respect	5	5.89
4 Freedom	6	6.48	Freedom	6	6.35
5 Inner harmony	6	6.52	An exciting life	7	7.70
6 Family security	6	6.70	Inner harmony	7	7.70
7 Wisdom	7	7.09	Wisdom	8	8.18
8 True friendship	7	7.58	True friendship	8	8.22
9 Mature love	9	9.32	Family security	8	8.33
10 Social recognition	10	10.17	A comfortable life	9	8.98
11 An exciting life	11	10.26	Social recognition	9	9.31
12 A comfortable life	11	10.63	Mature love	9	9.42
13 A world at peace	13	11.35	Equality	12	11.45
14 Equality	13	11.78	Pleasure	13	12.45
15 A world of beauty	14	13.07	A world at peace	14	12.29
16 National security	15	13.73	A world of beauty	15	13.99
17 Pleasure	15	13.88	National security	16	14.68
18 Salvation	17	15.13	Salvation	17	14.78
Instrumental Value, Before			Instrumental Value, After		
1 Honest	4	5.89	Honest	6	6.54
2 Responsible	6	6.08	Independent	6	6.76
3 Independent	7	7.93	Capable	6	7.06
4 Courageous	7	8.01	Responsible	7	7.01
5 Broadminded	8	7.67	Broadminded	7	7.74
6 Capable	8	8.15	Ambitious	7	7.83
7 Loving	8	8.24	Courageous	8	8.02
8 Ambitious	8	8.67	Intellectual	8	8.31
9 Self-controlled	8	8.90	Loving	8	9.01
10 Intellectual	9	9.09	Logical	9	9.44
11 Logical	9	9.58	Self-controlled	10	9.53
12 Cheerful	10	9.64	Imaginative	10	9.67
13 Helpful	10	9.74	Cheerful	10	9.83
14 Imaginative	11	10.69	Helpful	12	10.87
15 Polite	13	11.72	Polite	13	12.32
16 Forgiving	13	12.30	Forgiving	13	12.45
17 Clean	15	14.07	Clean	15	13.80
18 Obedient	16	14.62	Obedient	17	14.82

N=165 (Terminal), 163 (Instrumental).

Similarly, a comparison of the instrumental value systems instead of individual value rankings indicated that students at the time of leaving the program considered being capable to be more important than being responsible, broadminded, and courageous, while their relative priority for being capable was just the reverse when they joined the program. Also, students at the time of leaving the program considered being loving to be less important than being ambitious and intellectual, while their relative priority for loving was just the reverse when they joined the program.

The second approach for analyzing differences in rankings between the two periods looked at each of the 36 values (18 terminal and 18 instrumental) separately. For each value, I calculated the difference score for each respondent by taking the simple difference between the ranks given by the respondent for that value while entering and while leaving the program. I did a t-test for each value separately to see if the difference score was significantly different from zero. The t-test results are given in Table 2. Ranks given by students increased significantly (p<0.05) over the two years in the case of a comfortable life, an exciting life, pleasure, social recognition, and being ambitious, capable, imaginative, and independent. They also gave significantly less importance to a world at peace, a world of beauty, family security, inner harmony, national security, wisdom, and being helpful and responsible than what they gave two years earlier.

Table 2
T-Test for Difference in Ranks being Different from Zero

Terminal	M	Std Err	t Value	Instrumental	M	Std Err	t Value
A comfortable life	1.65	0.45	*** 3.66	Ambitious	0.85	0.42	* 2.01
An exciting life	2.56	0.41	*** 6.22	Broadminded	-0.07	0.38	-0.18
A sense of	0.31	0.39	0.79	Capable	1.10	0.39	** 2.82
accomplishment							
A world at peace	-0.94	0.39	*-2.40	Cheerful	-0.20	0.44	-0.45
A world of beauty	-0.93	0.33	**-2.80	Clean	0.28	0.32	0.86
Equality	0.33	0.38	0.86	Courageous	-0.01	0.41	-0.02
Family security	-1.62	0.40	***-4.10	Forgiving	-0.15	0.40	-0.37
Freedom	0.14	0.35	0.40	Helpful	-1.13	0.40	**-2.80
Happiness	0.27	0.35	0.78	Honest	-0.65	0.43	-1.53
Inner harmony	-1.18	0.42	**-2.80	Imaginative	1.02	0.41	* 2.47
Mature love	-0.10	0.38	-0.27	Independent	1.17	0.44	** 2.63
National security	-0.96	0.34	**-2.83	Intellectual	0.78	0.46	† 1.68
Pleasure	1.42	0.36	*** 4.01	Logical	0.15	0.46	0.32
Salvation	0.36	0.39	0.91	Loving	-0.77	0.40	†-1.94
Self-respect	-0.44	0.35	-1.25	Obedient	-0.20	0.37	-0.55
Social recognition	0.86	0.36	* 2.36	Polite	-0.60	0.34	†-1.74
True friendship	-0.64	0.34	†-1.88	Responsible	-0.93	0.37	*-2.49
Wisdom	-1.08	0.40	**-2.71	Self-controlled	-0.64	0.50	-1.29

N=165 (Terminal), 163 (Instrumental). $\dagger = p < 0.10$. * = p < 0.05. ** = p < 0.01. *** = p < 0.001.

Gender and Function as moderators

I did an analysis of variance of the difference score for each value across gender. Table 3 presents the results for those values for which the change in rank was significantly (p<0.10) different between female and male students. Results of t-tests to see if difference scores are

significantly different from zero are also presented in the table. Two years of management education reduced female students' preference for self-respect, and enhanced their preference for being intellectual. An increase in the preference for being ambitious was seen in the case of male students. Similarly, an analysis of variance of difference scores across functions revealed significant (p<0.05) difference between HR and non-HR students in the case of two values. HR students gave less importance to a world at peace at the end of two years, while non-HR students gave more importance to being ambitious. I also did an analysis of variance of the difference scores across gender and function together. Change in value rankings varied significantly (p<0.05) across the four categories (two categories of gender by two categories of function) in the case of two values—self-respect and being ambitious.

Table 3

Analysis of Variance of Change in Rank across Gender and Function

	N	M	Std Err	t-value		N	M	Std Err	t-value	F-stat
			Female					Male		
Self-respect	64	-1.39	0.59	*-2.35	1	01	0.17	0.42	0.40	* 4.87
Ambitious	62	-0.68	0.75	-0.91	1	01	1.78	0.48	*** 3.69	** 8.39
Intellectual	62	2.18	0.66	** 3.32	1	01	-0.08	0.62	-0.13	* 5.72
			HR					non-HR		
A world at peace	78	-1.81	0.58	**-3.11		87	-0.16	0.52	-0.31	* 4.51
A world of beauty	78	-1.51	0.48	**-3.15		87	-0.40	0.45	-0.89	† 2.83
Happiness	78	0.92	0.57	1.62		87	-0.31	0.41	-0.76	† 3.17
Self-respect	78	-1.08	0.50	*-2.14		87	0.14	0.48	0.29	† 3.07
Ambitious	78	-0.03	0.62	-0.04		85	1.65	0.56	** 2.93	* 4.00
Intellectual	78	1.67	0.48	*** 3.49		85	-0.04	0.77	-0.05	† 3.40
			HR					non-HR		
Self-respect:- Female	51	-1.06	0.66	-1.60		13	-2.69	1.32	†-2.04	
Male	27	-1.11	0.75	-1.47		74	0.64	0.49	1.29	* 3.17
Ambitious:- Female	51	-0.90	0.78	-1.16		11	0.36	2.24	0.16	
Male	27	1.63	0.97	1.67		74	1.84	0.56	** 3.29	* 2.95

 $\dagger = p < 0.10. * = p < 0.05. ** = p < 0.01. *** = p < 0.001.$

I also tested to see if the ranks assigned to the various values while entering and while leaving were different between female and male students and between HR and non-HR students. Each of the 36 values (18 terminal and 18 instrumental) was taken up for analysis separately. The nonparametric Median test and Wilcoxon rank sum test (with normal approximation and continuity correction) were used to test for a statistically significant difference in value rankings given by female and male students. Differences were treated as significant only if both the tests revealed significance at 0.05 level. The results for those values that showed significant difference are presented in Table 4. While entering the program, female students considered self-respect and being loving relatively more important than male students. Female students, while leaving the program, considered happiness, inner harmony, and being loving more important, and an exciting life, being ambitious, and being polite less important than male students. While entering the program, HR students considered self-respect, being broadminded, and being independent more important, and a comfortable life and being logical less important than non-HR students. HR

students, while leaving the program, considered mature love and being loving more important, and being ambitious and being obedient less important than non-HR students.

Table 4

Nonparametric Test of Median Differences across Gender and Function

		Median	Rank	Wilcoxon Z	Median Z
		Female	Male		
While entering	Self-respect	4	5	**-2.85	*-2.51
	Loving	6	9	**-2.83	**-2.74
While leaving	An exciting life	8	6	* 2.31	* 2.04
	Happiness	3	6	**-3.02	**-2.60
	Inner harmony	6	8	*-2.27	*-2.17
	Ambitious	10	5	*** 4.00	*** 3.73
	Loving	6.5	10	***-3.56	**-3.16
	Polite	14.5	12	* 2.16	* 2.39
		HR	non-HR		
While entering	A comfortable life	12	10	* 2.00	* 2.29
	Self-respect	4	5	**-2.58	*-2.19
	Broadminded	5	9	**-2.59	**-3.22
	Independent	6	8	*-2.02	*-2.00
	Logical	11.5	8	* 2.11	* 2.09
While leaving	Mature love	8	11	**-2.91	***-3.42
	Ambitious	9.5	6	* 2.53	** 2.64
	Loving	7	11	**-2.60	**-2.74
	Obedient	17	15	** 3.07	* 2.42

^{* =} p < 0.05. ** = p < 0.01. *** = p < 0.001.

Discussion

The findings of this study enhance our knowledge of the impact of management education. Knowing the values that are being inculcated in business schools is the first step toward bringing about change in business education along desired lines.

Results indicate that the relative importance given to a comfortable life, an exciting life, pleasure, social recognition, and being ambitious, capable, imaginative, and independent increase during the two-year period of management education. At the same time, the relative importance given to a world at peace, a world of beauty, family security, national security, and being helpful and responsible decrease. There is thus a clear change in value system of MBA students with self-oriented values like pleasure and a comfortable life becoming more important, and others-oriented values like being honest and responsible becoming less important. This is probably a cause for concern since the corporate world is likely to be interested in managers whose relative ordering of values is just the reverse. An MBA program that reduces the relative importance given to values like being honest and responsible might find it extremely difficult to market its program and its graduates to business organizations.

It is interesting to note that management education reduces the relative importance for self-respect and increases the relative importance for being intellectual in the case of female students, while there is no change in both these value rankings in the case of male students. Male students, on the other hand, give greater importance to being ambitious, while there is no such change in the case of female students. It is also worth noting that women, as compared to men, give self-respect a higher rank while entering the MBA program, but not while leaving the program, and give being ambitious a lower rank while leaving the program but not while entering the program. Coming again to HR versus non-HR students, a world at peace goes down in importance only for HR students and being ambitious increases in importance only for non-HR students. Gender and function also appear to interact in the case of both self-respect and being ambitious. Maximum decrease in importance for self-respect is seen in the case of female non-HR students, and maximum increase in importance for being ambitious is seen in the case of male non-HR students. These findings suggest that if business schools are interested in shaping the values of students, they will have to probably deal with both the genders and the various functions separately.

Conclusion

Demands of the corporate world on business schools have been constantly changing and have of late become more exacting. The findings of this study provide some preliminary evidence on the changes in value system that is caused by management education. The changes do not appear to be in a direction that business organizations would want. Business schools need to look at these trends and take steps to address students' value systems in a more effective way. The objective of management education should be to take students to a higher plane by transforming their value systems and lifting them to their better selves (Burns, 1978). As further research provides greater support, identifying the key values that business schools should focus upon would become easier.

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