

# Impact of Management Education on Personality of Management Graduates

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## ABSTRACT

Development of an individual as a manager requires a major shift in thought process of an aspiring management student. One of the key aim of management education is to build up the personality suitable so as to be of use as an efficient manager in the corporate world. To build up capacities lot of innovative teaching tools have been adopted worldwide by the B-schools like case based teaching, internships, use of media and online tools. Management education builds up these capacities in the form of personality traits. There are lot of psychometric tools available to assess the personality of individuals and other aspects of management like conflict management, leadership style, etc. This assessment helps in identifying the best talent suitable for a job in industry. This empirical study focuses on the impact of management education on personality change, on students entering the B-school and at the time of their exit. The students compared the perceived changes they have observed in themselves based on Cattell's sixteen factor personality model.

## Keywords

Personality; management education; impact; students; Cattell.

## Introduction

### Management education- linking to managerial effectiveness

In the current business environment, all resources are openly available. Managerial effectiveness is the differentiating factor for success among the competing companies. With the changes in technology, social thought process and globalization, management education plays a crucial role (Friga, et. al., 2003). Managerial skills are pertinent for managerial effectiveness in organizations (Beenen & Riggio, 2017). Management has to be more human where trust and emotional care is involved. Management education has a major role to prepare the candidates having the right set of skills to be more effective on the job (Poropat, 2011). The varied unknown circumstances in business world can be mitigated with management education. Management education forms a link between skilled managers and industry. It is supposed to impart job related skills to students (Krishnan, 2008). As in the course of Organization Behavior, we understand that one needs to understand self as an individual, develop interpersonal skills and work in groups besides domain or functional knowledge (Rana & Goel, 2012; Bennett & Langford, 1980). Various skills are required for a successful completion of job by managers and management education is most crucial for them. With change in market conditions, management education helps in coping with the same. (Mayank & Dave, 2007). Not just domain knowledge and skills, a positive attitude is necessary for success. Even ethical practices in corporate world, can be accentuated by management education. Management education forms a critical link to managerial effectiveness (Rana & Goel, 2012).

## Literature Review

### Managerial effectiveness and role of personality of a managerial student

Psychologists have argued that education can lead to change in beliefs, values and attitude. With change in values and attitude, personality of an individual can also be changed. This may further lead to more of success in managerial roles (Miner, 1963). Ten critical roles for managers, can be classified as interpersonal; informational and decision roles (Mintzberg, 1973). Self-awareness as a personality trait is the requirements of an ideal manager. As it reflects one's understanding of behavioral components in an individual and the match with organizational values leads to managerial effectiveness (Ilies et al. 2005). At senior management levels, Type B managers are relatively more effective as compared to Type A types. One's own perception of managerial effectiveness is affected by personality (Srivastava & Nair, 2011)

### Personality development by management education

Management courses provide insights into the way corporate world operates and conditions students to get acquainted and be ready to perform. It may be a major reason that leads to career success (Baruch & Leeming, 2001; Simpson, 2000). Research has indicated that, values of individuals can be changed through education (Hitlin & Piliavin, 2004; Inglehart & Baker, 2000). Also the academic activities as experienced in management education help in developing one's personalities (Brock, 2006). Management education involves diverse pedagogies like lecture, case study, role play, simulations, discussions, etc. The ultimate purpose is to develop or accentuate some of the values necessary in corporate world. All these education efforts are based on internal construct of individual beliefs, values and attitudes

(Ajzen & Fishbein, 1977). Hence we can assume that modification of values through education is possible in individual as well as in group behavior. The ability to work together in an academic institute every day, helps in developing values and skills necessary for working in a team (Creemers, et. al., 2002; Kyriakides, et. al., 2000; Rynes & Trank, 1999; Lamsa et al., 2002). Besides this, students also learn from their faculties, treating them as role models based on the amiability of their teaching styles (Veugelers & Vedder, 2003).

The set of values are also influenced by external environment which includes industries who are going to employ these management graduates. Looking at the current problems faced by companies they look for specific traits in any candidate. The management institutes primarily focus on employability of their students through management education. Management students are likely to be developed as strategic thinkers and management graduates are likely to be paid more than the non-management graduates in the industry (Herbert, 1980). The companies are looking for integrity, socially smart and commitment as required personality traits among many (Barrie, 2007). Values propagated through management educated are likely to be different in men and women candidates (Cotterill, Hughes, & Letherby, 2006).

Personality development is a critical component of management education. The companies looking for talent focus on right personality traits which match their requirements. Personality can be understood as emotions, a thought process and certain specific behavior observed consistently. Value orientations reflected in thought process are also critical for personality development that is desired (Oleshko, et. al., 2021). It also helps in defining the role an

## Methodology

The purpose of the study is to ascertain the impact of management education on the personality of students. The questionnaire was administered to 192 students, pre and post management course and were supposed to rate their level of proficiency on the basis of various factors of personality proposed by Cattell. The responses were checked for similar factors in personalities of students while joining the course. The impact was also measured on the basis of gender of the student and the following hypothesis were proposed to be tested:

H1<sub>0</sub>: There is no significant difference in personality of students (gender-wise), while joining the management course.

H1<sub>1</sub>: There is a significant difference in personality of students (gender-wise), while joining the management course.

H2<sub>0</sub>: There is no significant difference in personality of students on completion of management course.

H2<sub>1</sub>: There is a significant difference in personality of students on completion of management course.

individual would choose in life (Khoroshilov,2016). Psychometric tests help in understanding the inner thought process of an individual and the likelihood of decision making in different situations.

An understanding of the personality helps in identifying the unique attributes of individuals and predicting their behavior in different situations. Such individual differences and their potential can be measured by using a variety of psychometric tests which not only help in understanding and defining their potential as leaders and team players, their emotional stability and relaxation, but also play a vital role in knowing the real interest of an individual (Schmidt, 1988). Management education helps in transforming a student into more professional one and fit for the industry (Rachna & Ramchandran, 2016).

## Cattell's factors defining personality

Personality can be defined as, that which can help predict behavior of an individual in a hypothetical situation. It reflects the expressed and hidden intentions of an individual (Cattell, 1965). Personality also affects one's intentions to improve and learn further in all walks of life. Though there are many psychometric tests available, the sixteen factor personality model developed by Raymond Cattell in the year 1949, was used for analyzing the impact of management education on personality of students. Cattell's traits include ability and dynamic aspects as well (Revelle, 2009). The test administered was based on self-perception report of student. These self-report inventories are personality scales in which lot of characteristic behavior is captured (Weiten & Lloyd, 2004). All the sixteen factors were administered to the students and they rated themselves on all the factors, pre and post completion of the management course.

H3<sub>0</sub>: Management education does not significantly affect student's personality gender-wise, on the basis of Cattell's personality factors.

H3<sub>1</sub>: Management education significantly affects student's personality gender-wise, on the basis of Cattell's personality factors.

## Data Analysis

On checking the reliability of data, Cronback Alpha's value was found to be 0.948 which is a good indicator of reliability of data (192 respondents). The descriptive of data of students (Table 1) suggests that, there has been an improvement in means of all ratings pertaining to sixteen personality factors as proposed by Cattell. The highest positive change is seen in factors like Dominance, Self-Reliance, Openness to Change and Reasoning and the least positive were Vigilance, Rule consciousness and Tension. Also the standard deviation in all of the factors pre and post management education has also reduced. This shows convergence in the desired personality factors and students behavior based on personality might be more predictable and useful.

**Table 1. Descriptive Statistics of all 192 respondents**

S. No.	Cattell's factor	Mean Time t0	Mean Time t1	% change mean	Std. Dev. Time t0	Std. Dev. Time t1	% change S.D.
1	Warmth	6.71	7.27	8.31	2.21	1.97	-10.57
2	Dominance	6.28	7.19	14.61	1.92	1.55	-19.08
3	Self-Reliance	6.53	7.35	12.69	2.07	1.81	-12.41
4	Openness to change	7.02	7.85	11.87	1.86	1.37	-26.67
5	Apprehensive	7.44	7.84	5.39	1.83	1.62	-11.49
6	Vigilance	7.29	7.47	2.50	1.66	1.69	2.10
7	Emotional stability	7.32	7.62	4.13	1.79	1.58	-11.63
8	Reasoning	6.70	7.47	11.51	1.70	1.54	-9.00
9	Perfectionism	6.96	7.67	10.10	1.77	1.42	-19.64
10	Sensitivity	7.01	7.63	8.84	1.97	1.56	-20.64
11	Social Boldness	6.97	7.32	5.00	1.75	1.59	-9.25
12	Rule conscious	7.39	7.65	3.45	1.72	1.60	-6.75
13	Liveliness	7.20	7.54	4.78	1.56	1.38	-11.57
14	Privateness	7.40	7.86	6.26	1.66	1.40	-15.86
15	Tension	7.57	7.86	3.85	1.68	1.63	-3.24
16	Abstractedness	7.19	7.69	6.88	1.83	1.63	-11.14
<i>Time t0: At the time of joining the management course</i>							
<i>Time t1: At the time of completion of the management course</i>							

Further paired t-test was applied for all the students to understand whether the improvement in means was significant due to management education (Table 2). At 95% confidence level, it was found that through there was improvement in means of all personality factors, except in case of Apprehensive and Emotional Stability, where it was not significant. This implies that management education has a significant positive impact on all but these two personality factors among the students. The students tend to become more worrying of the outcomes, as the pressure to give

effective output increases, amongst lot of uncertainty. Also they have to become more calm and emotionally more stable. The corporate life is full of stress and uncertainty and management education, definitely prepares the students for those challenges.

**Table 2. Paired t-test for all students (192) pre and post management course**

Cattell's Factors	Mean	Std. Dev.	Std. Err. Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Warmth	-.557	1.812	.131	-.815	-.299	-4.261	191	.000
Dominance	-.914	1.230	.089	-1.089	-.739	-10.300	191	.000
Self-Reliance	-.828	1.398	.101	-1.027	-.629	-8.208	191	.000
Openness to change	-.833	1.316	.095	-1.021	-.646	-8.776	191	.000
Apprehensive	-.870	6.556	.473	-1.803	.063	-1.838	191	.068
Vigilance	-.182	1.060	.077	-.333	-.031	-2.383	191	.018
Emotional stability	-.768	6.691	.483	-1.721	.184	-1.591	191	.113
Reasoning	-.768	1.211	.087	-.941	-.596	-8.793	191	.000
Perfectionism	-.703	1.290	.093	-.887	-.519	-7.550	191	.000
Sensitivity	-.620	1.062	.077	-.771	-.469	-8.090	191	.000
Social Boldness	-.349	1.022	.074	-.494	-.203	-4.730	191	.000
Rule conscious	-.255	1.114	.080	-.414	-.097	-3.175	191	.002
Liveliness	-.344	1.052	.076	-.493	-.194	-4.528	191	.000
Privateness	-.464	1.066	.077	-.615	-.312	-6.023	191	.000
Tension	-.289	1.016	.073	-.434	-.144	-3.942	191	.000
Abstractedness	-.495	1.210	.087	-.667	-.323	-5.668	191	.000

**Table 3. Descriptive Statistics of boys (112) respondents**

S. No.	Cattell's factor	Mean Time t0	Mean Time t1	% change mean	Std. Dev. Time t0	Std. Dev. Time t1	% change S.D.
1	Warmth	6.71	7.47	11.30	2.11	2.16	2.50
2	Dominance	6.48	7.26	11.98	1.83	1.69	-7.61
3	Self-Reliance	6.70	7.48	11.73	1.95	1.92	-1.40
4	Openness to change	7.36	8.03	9.10	1.42	1.37	-3.36
5	Apprehensive	7.51	7.85	4.52	1.70	1.69	-0.87
6	Vigilance	7.20	7.43	3.23	1.59	1.79	12.65
7	Emotional stability	7.28	7.60	4.42	1.70	1.67	-2.12
8	Reasoning	6.89	7.58	9.97	1.60	1.64	2.54
9	Perfectionism	7.15	7.92	10.74	1.54	1.35	-12.54
10	Sensitivity	7.21	7.72	7.19	1.82	1.62	-10.89
11	Social Boldness	6.96	7.42	6.54	1.60	1.55	-2.96
12	Rule conscious	7.44	7.60	2.16	1.59	1.62	2.36
13	Liveliness	7.19	7.55	5.09	1.44	1.43	-1.17
14	Privateness	7.44	7.90	6.24	1.51	1.42	-6.03
15	Tension	7.56	7.87	4.01	1.58	1.66	5.17
16	Abstractedness	7.13	7.62	6.76	1.84	1.79	-3.03
<i>Time t0: At the time of joining the management course</i>							
<i>Time t1: At the time of completion of the management course</i>							

To understand the impact of management education gender-wise, paired t-test was administered to the two groups separately. Group of 112 boys (Table 3 &4) and group of 80 students of girls (Table 5 &6) were analyzed for the same. All the factors have shown a positive change pre and post completion of course. Again the standard deviation is also reduced in most of the factors except for warmth and rule consciousness. In these two factors there was increase in standard deviation, which means the factors were not controlled/ focused on, during the management education as others. The highest mean change was noticed in warmth of

11.3% (extrovert behavior), dominance of 11.98% (leadership qualities) and self-reliance of 11.73% (individualistic achievement tendency). The lowest change in means was observed in rule consciousness of 2.16% (obedience) and vigilance of 3.23% (cautiousness). Further paired t-test was applied to responses from the boys (112) and analyzed for impact due to management education (Table 4). The data was not significant for only one factor, i.e. rule consciousness which means that the differences may be due to reasons other than management education.

**Table 4. Paired t-test for male students pre and post management course**

Cattell's Factors	Mean	Std. Dev.	Std. Err. Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Warmth	-.759	1.317	.124	-1.006	-.512	-6.099	111	.000
Dominance	-.777	1.037	.098	-.971	-.583	-7.926	111	.000
Self-Reliance	-.786	1.304	.123	-1.030	-.541	-6.375	111	.000
Openness to change	-.670	1.034	.098	-.863	-.476	-6.851	111	.000
Apprehensive	-.339	1.070	.101	-.540	-.139	-3.355	111	.001
Vigilance	-.232	.977	.092	-.415	-.049	-2.514	111	.013
Emotional stability	-.321	.913	.086	-.492	-.151	-3.728	111	.000
Reasoning	-.688	1.139	.108	-.901	-.474	-6.387	111	.000
Perfectionism	-.768	1.208	.114	-.994	-.542	-6.727	111	.000
Sensitivity	-.518	.995	.094	-.704	-.331	-5.506	111	.000
Social Boldness	-.455	.909	.086	-.626	-.285	-5.300	111	.000
Rule conscious	-.161	.906	.086	-.330	.009	-1.877	111	.063
Liveliness	-.366	.968	.091	-.547	-.185	-4.003	111	.000
Privateness	-.464	.838	.079	-.621	-.307	-5.867	111	.000
Tension	-.304	.966	.091	-.485	-.123	-3.324	111	.001
Abstractedness	-.482	.977	.092	-.665	-.299	-5.222	111	.000

On applying the paired t-test for 80 girl respondents (Table 5), all factors had improved as far as the mean ratings were concerned and along with it, the standard deviation was also reduced.

This indicates convergence in the personality traits of girls due to management education. The highest mean change was noticed in dominance of 18.58% (leadership qualities), openness to change of 16.22% (experimental and free to act) and self-reliance of 14.12% (individualistic achievement tendency). The lowest change in means was observed in

vigilance of 1.52% (cautiousness), social boldness of 2.86% (venturing out) and tension of 3.62% (high energy).

Further paired t-test was applied to responses from the girls (80) and analyzed for impact due to management education (Table 6). The data was not significant for three factors, viz. warmth, vigilance and social boldness, which means that the differences may be due to reasons other than management education. The management course teaches us to be more practical in life with extra focus on industry.

**Table 5. Descriptive Statistics of girls (80 respondents)**

S. No.	Cattell's factor	m e t0	m e t1	o b s e r v e d m e a n	m e t0	m e t1	Sig. S. D.
1	Warmth	6.70	6.98	4.10	2.35	1.64	-30.18
2	Dominance	5.99	7.10	18.58	2.01	1.34	-33.47
3	Self-Reliance	6.29	7.18	14.12	2.21	1.64	-26.01
4	Openness to change	6.55	7.61	16.22	2.27	1.33	-41.62
5	Apprehensive	7.35	7.84	6.63	1.99	1.52	-23.71
6	Vigilance	7.43	7.54	1.52	1.74	1.54	-11.44
7	Emotional stability	7.38	7.65	3.73	1.92	1.47	-23.49
8	Reasoning	6.43	7.31	13.81	1.81	1.40	-22.38
9	Perfectionism	6.70	7.31	9.14	2.03	1.45	-28.25
10	Sensitivity	6.74	7.50	11.32	2.13	1.47	-31.23
11	Social Boldness	6.99	7.19	2.86	1.95	1.63	-16.16
12	Rule conscious	7.33	7.71	5.29	1.90	1.58	-16.65
13	Liveliness	7.21	7.53	4.33	1.71	1.31	-23.35
14	Privateness	7.35	7.81	6.29	1.86	1.37	-26.22
15	Tension	7.59	7.86	3.62	1.83	1.59	-12.97
16	Abstractedness	7.28	7.79	7.04	1.82	1.38	-24.48
<i>Time t0: At the time of joining the management course</i>							
<i>Time t1: At the time of completion of the management course</i>							

**Table 6: Paired t-test for female students pre and post management course**

Cattell's Factors	Mean	Std. Dev.	Std. Err. Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Warmth	-.275	2.317	.259	-.791	.241	-1.062	79	.292
Dominance	-1.113	1.441	.161	-1.433	-.792	-6.906	79	.000
Self-Reliance	-.888	1.526	.171	-1.227	-.548	-5.202	79	.000
Openness to change	-1.063	1.610	.180	-1.421	-.704	-5.904	79	.000
Apprehensive	-.488	1.102	.123	-.733	-.242	-3.956	79	.000
Vigilance	-.113	1.169	.131	-.373	.148	-.861	79	.392
Emotional stability	-.275	1.102	.123	-.520	-.030	-2.232	79	.028
Reasoning	-.888	1.302	.146	-1.177	-.598	-6.095	79	.000
Perfectionism	-.613	1.401	.157	-.924	-.301	-3.911	79	.000
Sensitivity	-.763	1.139	.127	-1.016	-.509	-5.988	79	.000
Social Boldness	-.200	1.152	.129	-.456	.056	-1.553	79	.124
Rule conscious	-.388	1.355	.151	-.689	-.086	-2.558	79	.012
Liveliness	-.313	1.165	.130	-.572	-.053	-2.400	79	.019
Privateness	-.463	1.331	.149	-.759	-.166	-3.109	79	.003
Tension	-.275	1.091	.122	-.518	-.032	-2.256	79	.027
Abstractedness	-.512	1.484	.166	-.843	-.182	-3.089	79	.003

**Discussions**

From the study, it can be inferred that management education does affect the personality of a candidate positively from all sixteen perspectives of Cattell's personality. All have reported increase in mean value pre and post evaluation of personality factors. Also the standard deviation for all means have reduced (barring two for boys), suggesting that convergence in behavior can be expected. So



when we say that a candidate has completed management course, certain behavioral aspects can be expected by the industry. The thought process tends to be more professionally inclined as compared to what it was during the time they started upon the course.

## Conclusion

The behavioral aspects were quite similar when the students joined the course but due to different social background they differed on the aspect of openness to change. Nevertheless, during the course they learnt from each other and management education helped them become better and similar on number of aspects.

There were gender-wise differences observed in personality factors. The boys were not affected significantly by management education on factors of vigilance and rule consciousness. This might be because of controlled environment in which education is imparted and the

## Limitations and Future Studies

The corporate world is undergoing changes at a faster pace as compared to earlier times. With the advent of technology and new pedagogical tools, such studies should be done in terms of pedagogies employed in management institutes. This would help in designing the right mix of teaching tools and pedagogies for the coming times. Further the pedagogical tools may be studied with understanding to ensure that irrespective of gender, the personality development is taking place.

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