

# Impact of Locus of Control on Leadership Qualities: An empirical study of Business Management Students

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## ABSTRACT

The paper aims to study the Locus of Control of students pursuing Business Management Course and impact of Locus of Control on Leadership Qualities of the students. The results indicate that more number of students have external Locus of Control. The external Locus of Control is higher for Powerful Others as compared to Chance Control. The external Locus of Control is in medium range hence it indicates that the students are not overtly controlled by external factors. The regression analysis shows that Locus of Control has an impact on Leadership qualities of a student.

**Key Words:** Locus of Control, Development, Human Resource Development, Self-Assessment, Business Management Students

### 1. Introduction

Locus of Control refers to belief of a person related to certain positive or negative happenings in his / her life. It is a generalized belief as to who controls the happening or non-happening of events. In other words, who is responsible for happening of an event? Locus of control classifies beliefs into two dimensions – internal control and external control depending upon who or what influences happening of things. Internal control describes the belief that a person himself / herself is responsible for what happens to him / her or what is going to happen in future, whereas external control describes the belief that whatever happens is not in control of an individual himself rather, it has an external locus. It can be in the hands of powerful others or chance factor. Conceptualization of Rotter stated that Locus of Control is one dimensional (internal to external) and Levenson's model states that there are three independent dimensions: Internality, Chance and Powerful Others. As per Levenson's model, each one of these dimensions can exist independently or can exist simultaneously. A person may have strong belief in himself / herself or may believe that future happening is dependent on self-activities and simultaneously fate / chance also plays a big role.

Several instruments have been developed since time of introduction of Locus of Control for measuring it. People with high internal Locus of Control are found to be self-contained, self-content and achievement oriented. They are able to control and modify their behavior. They have strong personalities and are able to influence people. They tend to be more optimistic as they believe in themselves. They are open to feedback and gather information and knowledge willingly. Usually it is believed that development of Locus of Control has its roots in family, culture and experience. People with internal Locus of

Control belong to families which give lot of importance to values, efforts, responsibilities and education.

It is seen that most of the people who have external locus of control belong to low income group families, who have very less control over their lives. Psychological researches have shown that people with internal Locus of Control are achievers, they are better placed with better paying jobs.

Locus of Control plays an important role in an organization. It determines the behavior of a person in an organization which is dependent on his / her belief that his / her promotion and recognition in the organization is dependent on his / her own effort or is dependent on powerful others and chance factor. Levenson has divided the concept of Locus of control in mainly two parts i.e. External and Internal, in external there are again two parts i.e. Chance or luck and other external factors.

Research undertaken in the Western world is brimful with claims that internality (a psychological belief system of one having control over aspects of one's life and the environment) is a trait which is in common amongst successful leaders (Klein & Wasserstein-Warnet, 1999; Andrisani&Nestel, 1976; Fusilier, Ganster&Mayers, 1987; Hollenbeck, Brief, Whitener & Pauli, 1988; Boone et. Al. 2000).

The research explores the psychological factor of locus of control of the Business Management Students. The results would be used to create self awareness amongst the students and guiding students for desired changes in their outlook and helping them attain greater internal Locus of Control. Greater Internal Locus of Control in Business Management students would be instrumental in creating better and effective managers and leaders for tomorrow in face of the dynamically changing business environment.

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## 2. Literature Review

### Locus of Control

Levenson (1972) used the concept of locus of control to develop Locus of Control Inventory (Locus of Control in Organization Inventory). Levenson (1972) distinguished between two types of external locus of control: significant others and chance or luck. Julian B. Rotter (1954) says that people with an internal locus of control are more likely to: be attentive to opportunities in the environment to improve the attainment of their goals, engage in actions to improve their environment, place a greater emphasis on striving for achievement, and be more inclined to develop their own skills. Bachrach & Peterson (1976) & Lefcourt et al. (1982) say that the development of locus of control is hypothesized to progress from a more external locus of control to a more internal locus of control as one matures. Cummins (1989) examined the relationship between social support and locus of control in determining job satisfaction levels and stress. Those with an internal locus of control developed ways to shield stress while those with an external locus of control relied on supervisory support to reduce stress. Individuals with an internal locus of control were shown to be more satisfied with their jobs regardless of stress levels while those with an external locus of control tended to be less satisfied with their jobs due to stress. Sandstrom & Coie (1999) says that External locus of control is correlated with peer rejection. Oesterman et al (1999) says that External locus of control is correlated with aggression.

Halloran, Dumas, John, & Margolin (1999) found that Individuals expressing a more internal locus of control believe that their behavior is directly related to the outcomes because they have control over their environment. Leone & Burns (2000) says that Locus of control is a construct that measures the degree to which individuals believe they are responsible for the consequences of their behavior. Judge and Bono (2001) found that there is a positive correlation (of 0.32) between internal locus of control and job satisfaction. John Salazar, Susan Hubbard & Leta Salazar (2002) found that internal/external locus of control impacts job satisfaction. Additionally, research indicates that locus of control relates to many other work-related perceptions.

### Leadership

Leadership may be defined as 'a process whereby an individual influences a group of individuals to achieve a common goal' (Northouse, 2010, p. 3). Further, Kelloway & Barling (2010) define leadership as a process of social influence that is enacted by individuals in formal positions of power or leadership positions within an organisation, such as managers and supervisors. Although leadership is not confined to individuals in formal leadership positions, it is argued that these individuals may have a particularly wide remit of influence within an organisation (Kelloway & Barling, 2010).

Leadership is not tantamount to management although they both share some common characteristics. For instance, they are both concerned with influence, working with people and meeting goals (Northouse, 2010). However, the functions of management may be distinguished from those of leadership. In particular, management is concerned with planning and budgeting

(e.g. setting timetables and allocating resources), organising and staffing (e.g. establishing rules and procedures) and controlling and problem solving (e.g. developing initiatives and generating solutions) (Kotter, 1990; cited in Northouse, 2010). On the other hand, leadership involves establishing a direction (e.g. creating a vision and establishing strategies), aligning people with organisational goals (e.g. communicating goals and seeking commitment) and motivating and inspiring people to achieve organisational goals (e.g. empowering subordinates) (Kotter, 1990; cited in Northouse, 2010). Despite these differing functions, leaders are also involved in planning and organising tasks in order to get the job done (i.e. management function) and similarly managers are often involved in helping groups achieve their goals (i.e. leadership function) (Northouse, 2010).

## 3. Theoretical Framework

Operational Definition for the factors of Locus of Control:

- Internal Locus of Control: Individuals with a high internal locus of control believe that events result primarily from their own behavior and actions.
- External Locus of Control: Individuals with high external locus of control (chance or others) believe that powerful others, fate, or chance primarily determine events

## 4. Objectives of the Study

To identify the type of Locus of Control (i.e. Internal or External) of the Business Management Students.

To study the impact of Locus of Control on Leadership

## 5. Hypotheses

Ho – A linear relationship does not exist between Dependent Variable (Leadership Score) and Independent Variable (Powerful Others, Chance Control and Individual Control)

H1 - A linear relationship exist between Dependent Variable (Leadership Score) and at least one of the Independent Variable (Powerful Others, Chance Control and Individual Control)

## 6. Methodology

The responses on Locus of Control was taken on a structured questionnaires from 100 students of Business Management Course. Finally 78 questionnaires complete in all respects were used to carry out the analysis. For Locus of Control, questionnaire designed by Levenson (1972)



having 24 items was used. For Leadership testing a questionnaire was designed. It had 39 items. The responses were collected on a five point likert scale ranging from 1 (Strongly Agree to Strongly Disagree). It was got validated by 10 experts 6 of whom belonged to academic fraternity and 4 were well known trainers and consultants. Reliability was checked by Cronbach's Alpha test of Reliability. Cronbach Alpha's value is .893 (which is very high). (Table 1). Tools used for analysis were mean, ratio analysis and regression analysis.

**Table 1: Reliability Statistics**

Cronbach's Alpha	N of Items
.893	39

**7. Findings and Discussion**

In this study information was gathered on demographic variables of the respondents such as age, gender, qualifications, religion and family structure. The respondents were students of management programme. 41% (32 out of 78) of the respondents were females. Majority (56.4%; 44 out of 78) were in the age group 22-24 years (42.3%; 33 out of 78).

77% (60 out of 78) belonged to Nuclear Family structure. 68% (53 out of 78) of students were from commerce background, followed by humanities and science background in terms of educational qualifications. Majority students (85%) were Hindus.

**Table 2: Respondent Profile**

Demographics		Male	Female	Total
Age	18-20	1	0	1
	20-22	21	23	44
	22-24	24	9	33
	Total	46	32	78
Family Structure	Nuclear Family	35	25	60
	Joint Family	11	7	18
	Total	46	32	78
Qualification	Humanities	15	7	22
	Commerce	29	24	53
	Science	2	1	3
	Total	46	32	78
Religion	Hindu	41	25	66
	Christian	1	1	2
	Muslim	1	0	1
	Sikh	2	4	6
	Any other	1	2	3
Total	46	32	78	

**Analysis of Objective**

The aim is to identify Locus of Control (Internal or External) in students pursuing management program.

**Ratio Analysis**

In the present study, ratio analysis was used to find out the type of Locus of Control of Management Students. Totally three ratios were calculated. They were

Externality (Powerful Others) / Internality (Individual Control)

Externality (Chance Control) / Internality (Individual Control)

Total Externality (Powerful others + Chance Control) / Internality (Individual Control)

The results of these three ratios were 1.11, 1.005 and 1.05 respectively. As all of them were more than 1, we can say that good amount of students have external locus of control.

**Mean**

Mean was also used to identify the type of Locus of Control present in the students. Table 3 shows that both the factors representing externality ( Powerful Others and Chance Control) have higher means (6.05 and 5.47 respectively) as compared to Internality (Individual Control) (5.44 mean score).

**Table 3: Mean Scores of External (Powerful Others and Chance Control) and Internal Locus of Control**

Locus of Control	Mean	Standard Deviation
Powerful Others (External)	6.05	2.532
Chance Control (External)	5.47	2.062
Individual Control (Internal)	5.44	2.344

The mean score for external locus of Control (Powerful Others) is the highest, indicating that the students put the onus of whatever good or bad happening to them on powerful others and not on their own doings or efforts. These powerful others can be parents, teachers, their seniors or any one in their external environment. This also indicates that these students would not take responsibility and will find reasoning of some external influence for some wrong doing or happening. They will not take initiatives and will not come out with innovative ideas.

Mean score for Chance Control is 5.47 indicating that

substantial number of students believe that whatever good or bad that happens is controlled by Chance or fate. The believers in luck, fate or chance again are not proactive and always take a back seat.

The mean score for individual control or internal locus of Control is 5.44 which is the lowest. It indicates that students have less internal drive. They do not take the responsibility and onus of the happenings in their surroundings. Internals have a tendency to learn from their experiences (experiences can be failures also). The mean score for internal Locus of Control is in medium range

**Table 3: Mean Scores of External (Powerful Others and Chance Control) and Internal Locus of Control**

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2953.016	3	984.339	5.718	.001 <sup>a</sup>
	Residual	12739.663	74	172.158		
	Total	15692.679	77			
a. Predictors: (Constant), Individualcontrol, Chancecontol, Powerfulothers						
b. Dependent Variable: Total score of Leadership						

**Table 5: Impact of LOC on Leadership**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	155.823	6.366		24.476	.000
	Powerfulothers	-1.690	.713	-.300	-2.372	.020
	Chancecontol	-.196	.837	-.028	-.235	.815
	Individualcontrol	1.364	.675	.224	2.021	.047
a. Dependent Variable: Total score of Leadership						

Regression Model

$$Y = b_0 + b_1x_1 + b_2x_2 + b_3x_3$$

$$\text{Leadership Score} = 155.823 - 1.69 \text{ Powerful Others} + 1.364 \text{ Individual Control}$$

The sample Y intercept  $b_0$  is computed as 155.823. This indicates that leadership score would be 155.823 when both external and internal Locus of Control (Powerful Others, Chance Control and Individual Control) are zero. In other words,  $b_0 = 155.823$  is the leadership score, when  $x_1$  (Powerful Others),  $x_2$  (Chance Control) and  $x_3$  (Individual Control) are equal to zero. The practical interpretation of  $b_0$  is limited.

$b_1 = -1.690$  is the slope of  $y$  (Leadership score) with independent variable  $x_1$  (Powerful Others), holding variable  $x_2$  (Chance Control) and  $x_3$  (Individual Control) constant. The negative sign of the coefficient  $b_1$  indicates an inverse relationship between the dependent variable  $Y$  (Leadership Score), and independent variable  $x_1$  (Powerful Others). This means that holding  $x_2$  (Chance Control) and  $x_3$  (Individual Control) constant, unit increase in score of  $x_1$  (Powerful Others), will result in -1.69 decline in Leadership scores of a student.

$b_2 = -0.196$  is the slope of  $Y$  (Leadership score with independent variable  $x_2$  (Chance Control), holding  $x_1$  (Powerful Others) and  $x_3$  (Individual Control) Constant. The negative sign of the coefficient  $b_2$  indicates an inverse



relationship between the dependent variable Y (Leadership Score) and independent variable  $x_2$  (Chance Control). This means that holding  $x_1$  (Powerful Others) and  $x_3$  (Individual Control) constant, unit increase in score of  $x_2$  (Chance Control) will result in -0.196 decline in leadership score of a student. As per the result the impact of Chance Control on Leadership score is not significant, hence it will not be included in regression equation.

$b_3 = 1.364$  is the slope of Y (Leadership Score) with independent variable  $x_3$  (Individual Control), holding variable  $x_1$  (Powerful Others) and  $x_2$  (Chance Control)

constant. The positive sign of the coefficient  $b_3$  indicates direct relationship between the dependent variable Y (Leadership Score) and independent variable  $x_3$  (Individual Control). This means that holding  $x_1$  (Powerful Others) and  $x_2$  (Chance Control) constant, unit increase in score of  $x_3$  (Individual Control) will result in +1.364 increase in leadership score of a student. As per the result the impact of Individual control on leadership score is significant and positive.

**Partial Regression Output**

**Table 6: Partial Regression Output**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.434 <sup>a</sup>	.188	.155	13.121
a. Predictors: (Constant), Individualcontrol, Chancecontrol, Powerfulothers				

$$R^2_{y,123} = \frac{\text{Regression Sum of Squares} = \text{SSR} = 2953}{\text{Total sum of Square} = \text{SST} = 15693} = 0.188$$

$R^2_{y,123}$  = Coefficient of multiple Determination

This implies that 18% of the variation in leadership score is explained by variation in individual control, chance control and powerful others. The coefficient of Determination ( $R^2$ ) measures the proportion of variation in dependent variable Y (here leadership score) that can be attributed to the combination of independent variable x (explained by the combination of independent (explanatory) variables).

If we add independent variables in the regression analysis, the total sum of squares will not change. Inclusion of independent variable is likely to increase SSR by an amount, which may result in an increase in the value of  $R^2$ . In this manner, sometimes we may obtain an inflated value of  $R^2$ . This Difficulty can be solved by taking adjusted  $R^2$  into account which considers both the factors, that is the additional information that an additional independent variable brings to the regression model and changed degrees of freedom. The adjusted  $R^2$  formula can be given as adjusted co-efficient of multiple determination (Adjusted  $R^2$ ).

$SSE / n - k - 1$

$$\text{Adjusted } R^2 = 1 - \frac{SSE / n - k - 1}{SST / n - 1}$$

$$= 1 - \frac{12740 / 74}{15693 / 77}$$

172.16

= 1 -

203.80

= 1 - 0.844

= 0.155

This indicates that 15.5% of the total variation in leadership score can be explained by multiple regression model adjusted for the number of independent variables and sample size.

**Standard Error of Estimate**

Table 6 shows partial regression outputs produced using SPSS. Standard Error can be understood as the standard deviation of errors (residuals) around the regression line. In a multiple regression model, the standard error of the estimate can be computed as

$$\text{Standard Error} = \sqrt{SSE / (n - k - 1)}$$

Where n is the number of observations and k the number of independent (explanatory) variables.

$$\text{Standard Error} = \sqrt{SSE / (n - k - 1)}$$

$$= \sqrt{12740 / (78 - 3 - 1)}$$

$$= \sqrt{12740/74}$$

$$= \sqrt{172.16} = 13.121$$

## 8. Conclusion

Business School has the responsibility of grooming the budding managers and leaders and honing their skills to face the dynamic and competitive global corporate environment. Business School these days rather than just only providing theoretical knowledge to the Business Management students, take deep interest in developing personal and professional skills of students. Locus of Control is an important aspect of the personality; hence lot of attention has been paid to it in the present study. The study shows that majority of students have external locus of control. More number of students are influenced by powerful others followed by chance control. They have to be made more independent so that they are able to take responsibility and onus of their doings in order to make them better and effective leaders and managers in future. This is being done by creating self awareness and self realization in the students to enable them rectify their approach in life.

As per regression analysis it has been observed that leadership score (dependent variable) of students is inversely effected by powerful others and directly effected by individual control. Hence we can conclude that, for students to be groomed into good leaders of tomorrow they should have more individual control over themselves and situation and should be less effected in decision making and their working by powerful others.

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