

Does Transformational and Transactional Leadership Behavior Matter on Organizational Change? Evidence from Dhaka Export Processing Zone (DEPZ)

Md. Zohurul Islam, PhD*

Abstract: *The objectives of this study are to find out the relationship between leadership competencies and organizational change and to find out the key factors for leadership behaviors style. A quantitative survey was done among the three categories of enterprises in DEPZ on managerial level officer only rather than all level of staff. It has been found that the leadership competencies (transformational and transactional) have a positive relationship with organizational change. Moreover, principal component analysis finds out four key style of leadership competencies that has a positive impact on organizational change. The findings are about leadership competencies for DEPZ managerial level on organizational change. The findings revealed that visionary leadership, networking leadership and group leadership have significant positive relationship with organizational change, while global leader and work life balance or flexible leadership are not significant. This study is based on survey within the DEPZ, there are same enterprises outside the DEPZ, and this study has not investigated those enterprises.*

Introduction:

The concept of Export Processing Zone (EPZ) is an economic enclave, free trade, foreign investment, exchanges of goods and manufactured with a reduction in duties and or minimal intervention by custom official (World Bank, 1999). Many developing countries have taken this concept since, 1960 for promoting industrialization (Amirahmadi, H., Wu W., 1995). The essence of establishing EPZ in Bangladesh is purely modern of manufacturing as customer focused and establishing industrial estate by providing attracting and suitable package of incentives for foreign and local investors. Bangladesh has joined in EPZ territory in 1980, in order to promote the development of EPZs and Act 1980 was enacted (Act No. XXXVI of 1980 dated 26 November 1980, as modified up to 13 December 1994).

The first EPZ was set up in Chittagong and started its operation in 1983. After reviewing its success, Bangladesh government has taken decision to set up second EPZ in Dhaka which undergone operation in 1993. By attracting local and foreign investors and getting response from them, the government has taken decision to set up six more EPZs in different part

* Evaluation Officer, Bangladesh Public Administration Training Centre, Savar, Dhaka

of the country to balance industrial development. The objectives of establishing are: generation of economic development, to diversify the foreign earning exports, to encourage and foster the establishment and development of industries in order to strengthen the economic of Bangladesh and to generate employment opportunities and up-gradation of management skill through advancement of technology (APO, 2000; Muqtada et al., 2002; Barua, 2008). Therefore, EPZs are playing a vital role in foreign direct investment through attraction foreign investor as well local investor for exporting goods and services. Moreover, economist and policy maker has identified as acquire skills and necessary resources to help increase the competitiveness of local economy (Eusuf et al. 2007) by establishing EPZs.

However, to survive in the competitive global business edge, required change in process and structure. Particularly, change happened from external and internal forces. External forces mainly depend on political, economical, technological, governmental and customer preferences. On the other hand, internal forces can be identified as system dynamics, managerial process, individual & group expectations, organizational design & structure and technological changes (Harigopal, K. 2001).

Therefore, to cope with the forces of change particularly in structure and processes required to have good practices of managerial or leadership competencies. Employees' have a mind set that they always resist to change and here leadership can play a vital role to develop followers to cope with changes and to create a positive climate where employees' behavior and performance are aligned with organizational values and attained its goals (Harigopal, K. 2001).

One of the core regulatory body, BEPZA is monitoring the rules and regulation through out the zones and its enterprises, still there is some irregular activities happened inside EPZs enterprises and outside EPZ. That has a negative effect on investors' satisfaction and also has a negative effect on employees/workers satisfaction, and result is lay off the organization and less productivity or performance (Eusuf, et al. 2007).

Indeed, leadership is an important and crucial variable that leads to enhanced management capacity for organizational performance. Both in private and public sector of management, leadership is playing an interesting role among HRM components (recruitment and selection, training and development, performance appraisal, and also career planning). Moreover, in the dynamic business era, leadership and

management are equally important for organizational change and performance (Pardey, 2007). Especially in DEPZ enterprises, where enterprises are facing the competitor in locally and internationally, to survive over the long term to make themselves into better competitors thus required many slogan like as total quality management, business reengineering, rightsizing, downsizing, and cultural change (Kotter, 2007).

Literature Review:

The core concept of Leadership is to influence followers for the effectiveness of organization. Even then, leaders' charisma, communication, and motivational power vibrate follower to achieve the organizational target in shortage possible of time frame. Hence in the last decade, transformational leadership models are playing a visionary role for implementing organizational objectives. Many empirical studies show that visionary leadership has a positive on followers' positive attitudes toward their work and organizational change or effectiveness (Groves, 2006; Waldman et al., 2001).

In the talented organizational development, change oriented leadership is required to sustain the interest of managers scholars. Transformational leaders focus on intangible qualities such as vision, shared values and ideas to build up the relationship with the followers in the change process (Daft, 2003). As the world is bounder less, and business is more competitive one transformational leadership is more important as a visionary or charismatic leadership for organizational change (Bass, 1985; Burns 1987; House and Shamir, 1993).

Therefore, becoming top in business earning revenue leadership adaptation motivate employees to act with satisfaction for firm performance. Here literature suggested that transformational and transactional leadership have a link with employees' satisfaction and firm performance. Nevertheless, transformational leadership is associated with organizational culture like as employees' motivation for adapting their competencies in various changes. Basically, transformational leadership has associated with attaining changes in followers thinking and motivational states (Bass 1985; Pawar, 2003). Moreover, there is a positive relationship with transformational and transactional behavior, knowledge sharing leadership on organizational performance (Behery, 2008).

True leader has a vision that communicates the organizational goal, objectives and strategy through the followers (Michael & shandra 2007). Burns (1978) has identified that leader's role for change and movement in organization. Besides, leaders are willing to change the status quo by trusting and empowering their people.

In this study, transformational and transactional leadership have seen in the following leadership style.

- Global leader
- Visionary leader
- Networking leader
- Work life balance/flexible leader

Therefore, according to literature review, we formulated the Hypothesis as follows:

Hypothesis1: Global leadership has a positive effect on organizational change.

Hypothesis2: Visionary leadership has a positive effect on organizational change.

Hypothesis 3: Networking leadership has a positive effect on organizational change.

Hypothesis 4: Work life balance or flexible leadership has positive effect on organizational change.

Objectives of this Study:

- To find out the relationship between leadership competencies and organizational change.
- To identify leadership competencies key factors that foster organizational change for firm performance in DEPZ.

Research Methodology:

Pilot survey: The questionnaire was developed for a pilot survey. Vogt (1999 p.214) and Babbie (2004, p.256) emphasize the essence for questionnaire testing before administering it to the entire sample. Thus, this research did pilot survey to detect for error, validity and scale

reliability. In this study 5 point- scale was used ("1" for Strongly Disagree to "5" for Strongly Agree) developed by Likert (1932). Pilot survey was started in the month of January-February, 2008. The survey was done with English version questionnaires for Managerial level with 30 respondents from 6 enterprises. The sample respondents had been selected at random basis from the list of enterprises. The leadership competencies with 16 items were tested by using 30 managers to obtain feedback and the scale validity of the survey. The calculated Cronbach Alpha (?) value is 0.8791, which indicates the high reliability of the instrument.

Full-scale survey: After the pilot survey, this study went for full scale questionnaires survey and this was administered during April, May and June 15, 2008 within 53 manufacturing organizations out of 103 (BEPZA statistics, May, 2008) organizations in economic zone, DEPZ. That covers 216 respondents from the total of 512 in the surveyed enterprises and the response rate of 42.18% (26.18% of 825 total entire population.). A simple random sampling method was used for selecting the enterprises. The response rate was satisfactory and statistically acceptable (Babbie, 2004), it was because of researcher distributes and collects questionnaire in person. This method can allow the researcher to ask question to the respondents to complete the questionnaires while the researcher was present. Data and information were collected from managerial level by distributing the English version of questionnaire by spending 25 minutes to fill in each questionnaire. For the survey within the factories, a prior permission letter had been issued for the entire 103 enterprises (BEPZA General Manager, dated: 22.01.08), and Industrial Relations (IR) Manager (BEPZA) took a telephonic approval from that factory authority where we surveyed everyday during office time. It was another reason for the good response rate, because of the IR Manager is the key person in all these enterprises within the zone.

Sample: For the survey, a random sampling was chosen for selection enterprises from the A, B and C category of DEPZ organizations. 53 enterprises were selected from 103 and that covered 216 respondents. The demographic characteristics of respondents are presented in Table 1.

Table 1: Demographic Profiles of the Respondents

Employee Type	Number	Percentage
Male	189	86.1%
Female	27	13.9%
Total	216	100%
Age Group	Number	Percentage
Below 30	0	0%
31-35	36	16.67%
36-40	154	71.30%
41-45	26	12.03%
Above 45	0	0%
Total	216	100%
Education	Number	Percentage
HSC	0	0%
Bachelor	3	1.4%
MBA	43	19.9%
Master's Degree	170	78.7%
PhD	0	0%
Other	0	0%
Total	216	100%
Position	Number	Percentage
Manager	139	64.4%
Assistant Manager	77	35.6%
Total	216	100%
Training Received (Home)	Number	Percentage
Yes	123	56.9
No	93	43.1%
Total	216	100%
Training Received (Foreign)	Number	Percentage
Yes	30	13.9%
No	186	86.1%
Total	216	100%
Surveyed enterprises	Number	Percentage
A-foreign own	33	62.27%
B-joint venture	7	13.20%
C-local own	13	24.53%
Total	53	100%
Enterprises Trade union status	Number	Percentage
Yes	31	58.49%
No	22	41.51%
Total	53	100%
Management preference Trade union	Number	Percentage
Election	09	16.98%
Selection	44	83.02%
Total	53	100%

Source: Field survey, 2008.

Measurement: Leadership competencies: Flynn et al., (1994), Saraph et al., (1989), Podsaffoff et al., (1982), Bass, (1985; 1987, 1990), Burns (1978), Lunthans & Kreitner, 1985) has developed leadership competencies variables (Transformational and transactional leadership behavior), in this study we used 16 leadership competencies variables includes vision-values-strategy, empower, strategic action, customer orientation, communication, group, risk initiative, global mindset, influence, trust-integrity, counsel, work life balance, uncertainty, quality management, information distribution and networking. . The five point-Likert scale is used to measure the variables, range at '1' Not at all, '2' To some extent, '3' Average, '4' Well, and '5' Very well.

Organizational change: In this research study, we measured organizational change as dependent variable by 13 items. Here also we used five-point Likert-scale, range at '1' strongly disagree to '5' strongly agree. The items used as change items organizational structure, pay scheme, team work culture, labor-management relations, new technology, new work process, new IT system, IT uses in organization, new technology effect on performance, employees comfortable with changes, learn new things, employees participation in change activities and employees openness (Ananataraman et al., 1984).

Reliability: Reliability reflects the consistence of a set of items variables scale by measuring the concept in a particular. It illustrates the individuals differences concerning the amount of agreement or disagreement of the concept studied. In this study, reliability measurement is important to verify the variables consistencies through employee job satisfaction, quality of work life and organizational performance. Cronbach's alpha is computed using SPSS scale reliability programme for each set of construct. The value of Cronbach's alpha for leadership competencies is 0.7901 and alpha for organizational change is 0.7752. This value is acceptable and standard with the satisfied the requirement (Hair, et al., 2006,; Nunnally, 1978).

Data analysis: Collected data were analyzed by using statistical tools and the SPSS 11.5 windows version software was used to obtain chi-square, descriptive statistics mean and standard deviation, regression and coefficient, correlation, KMO, and Principle Factor Analysis.

Result and Discussion:

The leadership questionnaire was developed in English and self administered within managerial level employees' in DEPZ three type of enterprises like as foreign own, joint venture and local own enterprises. Leadership competencies were measured by 16 questionnaire items. Descriptive result found that LC5, LC6, LC8, LC15, LC16 are with high mean value and low standard deviation, LC1, LC2, LC3, LC4, LC7, LC10, LC13 and LC14 are moderately high mean value. LC12 and LC9 are having low mean value and with high standard deviation (Table 2).

Table 2 reveals the 16 items measuring leadership competencies for organizational change in DEPZ. The items were analyzed by using chi-square test (t-test). Found the calculated chi-square values for 16 statements are smaller the Tabular chi-square value. The null hypothesis is accepted. And the results of chi-square test were highly significant. Variables details are presented in Annexure A.

Table 2: Chi-square

Variable	Chi-square	df	Asymp. Sig.
LC1	83.083	2	.000
LC2	78.815	3	.000
LC3	82.028	2	.000
LC4	72.028	2	.000
LC5	93.250	2	.000
LC6	169.361	2	.000
LC7	44.528	2	.000
LC8	95.583	2	.000
LC9	52.889	3	.000
LC10	77.083	2	.000
LC11	145.667	3	.000
LC12	237.519	4	.000
LC13	161.926	3	.000
LC14	91.444	2	.000
LC15	85.528	2	.000
LC16	231.481	3	

Correlation of Leadership Competencies variables (Table 3) shows the relationship among the 16 leadership competencies variables. Table 3 indicates that there is a strong and significantly positive relationship between all the leadership competencies variables. The results suggest that a leadership competency has an effect on organizational change.

Table 3: Descriptive statistics and correlation for leadership competencies for organizational change (n=216)

variables	M	SD	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	LC12	LC13	LC14	LC15	LC16
LC1	4.32	.583	1															
LC2	4.06	.782	.512**	1														
LC3	4.17	.605	.385**	.521*	1													
LC4	4.34	.604	.340**	.335**	.312**	1												
LC5	4.53	.578	.132	.172*	.059	.126	1											
LC6	4.70	.535	.101	.185**	.175*	.144*	.366**	1										
LC7	4.20	.670	.253**	.352**	.340**	.224**	.124	.220**	1									
LC8	4.54	.593	.076	.196*	.116	.110	.193*	.135*	.196**	1								
LC9	3.94	.876	.466**	.569**	.372**	.217**	.031	.077	.212**	.005	1							
LC10	4.49	.640	.268**	.439**	.337**	.284**	.168**	.283**	.314**	.152*	.410**	1						
LC11	4.40	.722	.190**	.339**	.235**	.188**	.188**	.243**	.218**	.080	.152*	.014	1					
LC12	2.64	.758	-.147*	-.059	-.059	-.101	-.068	.044	-.034	.080	-.021	.053	-.153	1				
LC13	4.06	.658	.249**	.310**	.217**	.144*	.166*	.095	.150**	-.031	.298**	.124	.053	-.243*	1			
LC14	4.48	.554	.069	.110	.030	.095	.031	.146*	.104	.137**	.132	.163	.094	-.066	.233**	1		
LC15	4.50	.587	.011	.322	.061	.142	.007	.003	.103	.188**	.018	.087	.065	-.040	.109	.193**	1	
LC16	4.60	.545	.271**	.293**	.208**	.128	.094	.242**	.155**	.124	.297**	.251**	.209**	-.086	.137*	.315**	.358**	1

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

LC=Leadership Competence (variables list in appendix-A)

Regression for leadership:

Table 4 reports model summary of leadership competencies for organizational change. Simple liner regression was run for testing the formulated hypothesis. The regression/ANOVA result shows that the model was highly significant at the level of 5%. The model summary is given the correlation value (+.783) means that highly correlated, with the adjusted R-square is 60.9% of total variance explained.

Table 4: Regression/Model Summary/ANOVA on Leadership Competencies

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.783(a)	.614	.605	.20410	66.744	.000

a Predictors: (Constant), WLB_FLEX, GLOBAL_L, NETWORK_L, GROUP_L, VISION_L

Table 5: Leadership Coefficients result

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Beta	Std. Error	Beta		
1	(Constant)	1.377	.224		6.138	.000
	VISION_L	.483	.034	.680	14.051	.000
	NETWORK_L	.066	.036	.082	1.819	.070
	GROUP_L	.113	.032	.160	3.495	.001
	GLOBAL_L	.023	.029	.039	.808	.420
	WLB_FLEX	-.002	.033	-.002	-.057	.955

a Dependent Variable: CHANGE_F

Leadership coefficients result shows (Table 5) that visionary leader is given more influence in organizational change, it explained 68% of variance by itself and visionary leader is significant with at the level of 5%. Group leader is also significant relationship with organizational change and it explained 16% of variance. Others have positive relationship but not in significant level. Work life balance is negative relationship and not significant.

KMO for Leadership:

KMO and Bartlett's Test in Table 6 shows that the sampling is adequate (.795) and significant for this study. Thus the factor analysis may be considered as appropriate technique for analyzing the factor loading. Moreover, the table shows the approximate chi-square statistics is 734.733 with 120 degree of freedom, which is significant at the 0.05 level.

Table 6: Leadership competency factor KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.795
Bartlett's Test of Sphericity	Approx. Chi-Square	734.733
	df	120
	Sig.	.000

PCA for Leadership:

For this study exploratory factor analyze was performed by using principal components analysis (PCA). According to Hair et al., (2005), factor loading greater than 0.30 are considered to meet the minimal level; 0.40 are considered more important; loading 0.50 and above are considered highly significant. In this PCA loading cut-off point was used 0.452.

PCA reduced 16 leadership competencies which extracted into five factors explained 57.94% of total variance (Table 7). Each factor was dominated by at least two variables. Factor Component 1 was related to Visionary Leader (PC1) which includes empower other (.791), influence other without showing authority (.768), strategic action (.720), tangible vision and strategy (.712), integrity and trust (.475), customer orientation (.474) and risk initiative (.452). Factor Component 2 was related to Networking Leader (PC2) which included manage quality improvement (.715), manage internal and external networks (.697) and information processing (.681). Factor Component 3 (PC3) was related to Group Leader which included think together as one group (.771) and day to day communication (.763). Factor Component 4 (PC4) was related to Global Leader which included global mindset (.726) and counseling others (.625). Factor Component 5 (PC5) was related to Work Life Balance/Flexible Leader which included blanching time with family and personal (.902) and dealing with uncertainty (-.458).

Table 7: Result of principle component analysis with VARIMAX Rotation, on 16 Leadership Competencies variables collected from 53 randomly selected enterprises from DEPZ.

Leadership variables	Visionary Leader (PC1)	Networking Leader (PC2)	Group Leader (PC3)	Global Leader (PC4)	Work life Balance/Flexible & risk taking leader (PC5)
LC2 Empower other	.791				
LC9 Influence other	.768				
LC3 Manage strategy to action	.720				
LC1 vision, value and strategy	.712				
LC10 Integrity & trust	.475				
LC4 Customer orientation	.474				
LC7 Risk initiatives	.452				
LC14 Quality improvement		.715			
LC16 Internal & external networking		.697			
LC15 Distribution of information		.681			
LC6 Think together as one group			.771		
LC5 Day to day effective communication			.763		
LC8 Have a global mindset				.726	
LC11 Coach other				.625	
LC12 Balancing work time with family & personal					.902
LC13 Deal with high uncertainty					-.458
% of total variance explained	19.845	10.411	9.977	9.925	7.787
Eigen value	4.064	1.598	1.393	1.180	1.036

Factor scores of variables in bold letters for each component

Conclusion:

This study investigates, in particular, the relationship between leadership competencies and organizational change. A questionnaire survey is undertaken with DEPZ having 53 enterprises 216 managerial level employees'. The simple regression analysis found leadership competencies (transformational and transactional) are significantly and positively related to organizational change within DEPZ enterprises. Transformational and transactional later on, visionary leadership, networking leadership, group leadership, global leadership and work life balance/flexible leadership are with high loading factors and visionary, networking and group leadership are positive with organizational change. Work life balance is negative and not significant relationship with organizational change. Also those factors become more important and influence for organizational change. Organizational change has implemented by top leader or manager.

Annex: A

Leadership competencies item:

1.	Have a clear tangible vision, values and strategy
2.	Empower others to do their best
3.	Get results/manage strategy to action
4.	Exhibit a strong customer orientation
5.	Communicate effectively on a day-to-day basis
6.	Think together as 'one group' about the total business
7.	Take risk initiatives
8.	Have a "global mindset"
9.	Influence others without showing authority
10.	Have integrity and trust
11.	Coach/council others
12.	Balance work, family and personal time
13.	Deal with high ambiguity/uncertainty
14.	Manage quality improvement
15.	Process and distill large amounts of information
16.	Manage internal and external networks

Reference:

- Amirahmadi H., Wu, W., (1995), "Export Processing Zones in Asia", Asian Survey, Vol.35, No. 9. (Sep., 1995), pp.828-849.
- Babbie, E. (2004). The practice of social research. CA: Wadsworth/Thomson Learning.
- Bass, B. M. (1985). "Leadership and Performance Beyond Expectations", Free Press, New York, NY.
- Bass, B. M. (1990). "Bass and Stogdill's Handbook of Leadership", Theory, Research and Managerial Applications, 3rd ed., Free Press, New York, NY.
- Bass, B. M., Avolio, B. J. and Goodheim, L. (1987). "Biography and the assessment of transformational leadership at the world-class level", Journal of Management, Vol. 13, pp. 7-19.
- Burns, J. M. (1978). Leadership. Harper & Row, New York, NY.
- Eusuf, M.A., et al., 2007, "Institutions for facilitating FDI: Issues for BEPZA, Bangladesh", IPPG Programme Office, IDPM, School of Environment & Development, University of Manchester, UK.
- Flynn, B., Schoeder, R. and Sakibaba, S. (1994). "A framework for quality management and associated measurement instrument". Journal of Management, Vol. 11, No. 4, pp.339-66.
- Groves, K. S. (2006). "Leader emotional expressivity, visionary leadership, and organizational change". Leadership & Organizational Development Journal, Vol. 27 No. 7, pp. 566-583.
- Hair, J.F., Anderson, R.E., Tatham, R.L., Black, W.C., (2006), Multivariate Data Analysis, Prentice-Hall Inc., 6th Edition, pp.103.
- Hargopal, K., (2001), Management of Organizational Change, New Delhi.
- House, R. J. and Shamir, B. (1993). "Toward the integration of transformational, charismatic and visionary theories of leadership". In Chemmers, M. and Ayman, R. (Eds), Leadership: Perspectives and Research Directions, Academic Press, New York, NY.
- Kotter, P. J. (2007). "Leading change: Why Transformational Efforts Fail". Harvard Business Review, Vol. 85, No.1, pp.96.

- Pardey David, (2007). "Leadership in turbulent times". Strategic HR Review, Junly-August, Vol.1, No. 6, issue 5.
- Parwar, B. S. (2003). "Central conceptual issues in transformational leadership research". Leadership and Organizational Journal, Vol 24, No. 7. pp.397-406.
- Podsakoff, P. M., Todor, W. D. and Skov, R. (1982). "Effect of leader contingent and noncontingent reward and punishment behaviors on subordinate performance and satisfaction", Academy of Management Journal, Vol. 25, pp.810-21.
- Saraph, J., Benson, P. and Schroeder, R. (1989). "An instrument for measuring the critical factors of quality management". Decision Sciences, Vol. 20, No. 4, pp. 810-29.
- Waldman, D. A., Ramirez, G.G., House, R. J. and Puranam, P. (2001). "Does leadership matter? CEO leadership attributes and profitability under conditions of perceived environmental uncertainty". Academy of Management Journal, Vol. 44, No. pp. 134-43.