

Government Facilitator Roles and Ecopreneurship in Environmental NGOs

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ABSTRACT: This article outlines the Government Facilitator Roles in Ecopreneurship functions in Environmental NGOs. Target Group was environmental NGOs in Iran (Key actors, committed to preserving ecological and environmental integrity). Accelerating innovation way for improving the environmental conservation by Environmental NGOs is the conceptual mean of Ecopreneurship in this research. Questionnaire as a research instrument was to measure the constructs. Content validity by panel study confirmed. To determine reliability alpha coefficient was calculated. Value ranged from 0.74 to .96 showed that research instrument has acceptable capability to collect data and satisfy accepted condition. Dominant statistical method was SEM and for data analysis PLS-Graph was employed. According to path analysis results, four dimensions of Government facilitator have a significant role in Ecopreneurship in Iranian environmental NGOs. End of article some of implications were illustrated for improving Ecopreneurship functions by Government facilitator roles.

Key words: Ecopreneurship, Environmental NGOs and Government Facilitator Roles

INTRODUCTION

During the recent decades, much exploitation from the natural sources especially the forests and the ground waterfalls have created important environmental threats and concerns for the developing countries (Parrish, 2010). Thus, the global environmental threats today have become one of the most challenging issues in the environmental management (Arslan *et al.*, 2012; Mossalanejad, 2012; Basso *et al.*, 2012; Lahijanian, 2011; Bruni *et al.*, 2011; Pirani and Secondi, 2011; Segarra-Ona *et al.*, 2011; Kanokporn and Iamaram, 2011). Focusing on the development of environmental NGOs for reduction of these concerns today are accepted as a solution among different countries (Potocan and Mulej, 2003; Moghim and Alambeigi, 2012; Mossalanejad, 2011). Studying the main variables in the development of NGOs activities level has been under the attentions of different researchers especially the entrepreneurship scholars and researchers (Matos and Hall, 2007, Connor *et al.*, 2007).

Entrepreneurship is increasingly being recognized as significant conduit for bringing about a transformation to sustainable products and processes,

with numerous high-profile thinkers advocating entrepreneurship as a panacea for many social and environmental concerns (Parrish, 2010, Allen and Malin, 2008). The term referring to innovative businesses along with sustainability of environment are taken into attention in teleology of entrepreneurship called as environmental entrepreneurship, ecological entrepreneurship, Ecopreneurship and green entrepreneurship (Allen and Malin, 2008).

One of the development goals especially sustainable development is focusing on environment protection and sustainable development is important as a challenging and overwhelming concept in business and policy making during past two decades (Hall *et al.*, 2010). Environmental entrepreneurs by optimal use of environmental resources for production on one hand and on the other by creating innovation in production, protection and alternative activities prevent environmental damages (Camison, 2008). Dean and McMullen (2007) point out that it is the very distinct that environmental problems can be solved only by entrepreneurial solutions.

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A recent explains by Zahra et al. (2009) suggests that social entrepreneurship requires an appreciation of individual and group motivations, and encompasses activities and processes to discover, define, and exploit opportunities for the enhancement of social wealth through the creation of new ventures or managing existing organizations. We believe that an appreciation of Environmental NGOs members by Government's Facilitator will be lead to Ecopreneurship in NGOs roles and functions. There were only a few papers in the area of Ecological Entrepreneurship. Also this poor literature is more prescriptive than descriptive.

Many look at the motivation of entrepreneurs to pursue sustainable ventures. Dixon and Clifford (2007) contend that there is a strong link between entrepreneurialism and environmentalism. In this area Meek et al. (2010) look at how the extensive institutional context influences incidence of sustainable entrepreneurship. In particular, they focus on the role that social norms and government incentives play. While entrepreneurs have long been recognized as a vehicle for exploiting emerging opportunities related with societal need, (Logan and Wekerle, 2008). Discovering more factors that foster this process is Worthful for sustainable entrepreneurship. Government's Facilitator is less considered in this case. In this paper five roles of Government's Facilitator in entrepreneurship development were considered.

Brandt and Vejre (2004) and McCarthy (2005), Believe that to economic and social benefits generated by natural resource products, responsible conservation of natural resource sustain cultural amenities, traditional lifestyles, food and energy security, and a vast array of ecosystem services. Ecopreneurship or entrepreneurship in which "key actors are committed to preserving cultural, ecological, and environmental integrity yet find new pragmatic ways to create economic benefits" (Kimmel and Hull, 2012).

We are interested in sustainability outcomes similar to Kimmel and Hull, 2012 and Marsden and Smith (2005), but here focus specifically on natural resources conservation by entrepreneurial strategies in finding innovative way. We support the argument that such entrepreneurship requires support from external partners that Government's Facilitator is much highlighted for NGOs as an external partner in Ecopreneurship functions. Marsden and Smith emphasize networks as a necessary dimension for facilitating ecological entrepreneurship, specifically "how networks function and evolve to shape knowledge and create a collective willingness to innovate to achieve mutually beneficial goals".

The 'new associationalism' that pursues more sustainable outcomes (Clark, 2005) means bringing a

new set of stakeholders and motivations into the network, requiring business managers and producers to "create and maintain new associations with a whole range of external actors and institutions" (Marsden *et al.*, 2002). We saw this network in government as an external actors and environmental NGOs as other side of network. Working together in regard to, obtain Ecopreneurship outcomes.

Today finding comprehensive conservation Strategies of natural resource are the main concern in many countries (Berkes, 2007; Freyfogle, 2006). Strategies that address resources issues alongside of the social and economic dimensions of communities. Communities' mobilization for natural resource conservation as a dominant Strategy will be translated in NGOs.

Natural recourse conservation strategies began in the Iran in the mid-20th century mostly through establishment some of environmental organization such as a environmental NGOs. Entrepreneurship literature suggests three roles must be present to build a successful entrepreneur support network: (1) network brokers, (2) regional catalysts, and (3) entrepreneur support organizations. We believe that Environmental NGOs have a potential for playing these roles (Kimmel and Hull, 2012).

Managers and public representatives working in the government institutions need to develop a customer-oriented approach for delivering services (Jones *et al.*, 2007). The governmental sector can expand entrepreneurship by different methods. These methods can lead to a general policy that create entrepreneurship or the special methods which can help the entrepreneurs (Korngold, 2007). Governments have always played a crucial role in the entrepreneurial activities of people (Waheduzzaman, 2009). Encouragement, presenting facilitates and legal support from the people efforts is considered a good environment. The NGO activities are mainly aimed at improving the society. In fact a good government uses the available facilities such as people intellects to empower the country and it uses them as a complementary power for the government (Moghimi, 2002). In simple words, the dominant political atmosphere of community is one of the most important environmental components in entrepreneurship.

In the different studies it has been determined that the government supportive programs in the areas of financial and human for the start entrepreneurs businesses that have benefited from these supports had been so important. Most of the developed countries invest much in their plans for business development and entrepreneurship (Moghimi, 2002).

That is why based on the comment of Orhan and Scott (2001), today the governments have focused on encouraging the entrepreneurship, because entrepreneurship embodies the creativity and dynamic economy.

According to the survey that Moghimi (2002) did in the NGOs of Iran, it was found out that relationship with the government is one of the main indicators of entrepreneurial development of NGOs in Iran. The increase of government aid to NGOs, especially in terms of financial and legal support is really important in this field.

Proposed model for Ecopreneurship Functions (EEF) based on government facilitation roles are proposed in fig. 1.

MATERIALS & METHODS

The main Statistic method in data processing was Partial least squares. PLS is a causal-predictive method of analysis in which the problems explored are complex and the theoretical knowledge about them is limited (Chin, 1998). PLS, as a Structural Equation Model (SEM) is a second-generation technique which has overcome some of the principal limitations of first-generation techniques, such as regression-based approaches (e.g., multiple regression analysis, discriminant analysis, logistic regression, analysis of variance), and factor or cluster analysis (Heinlein & Kaplan, 2004) (1) the postulation of a simple model structure (at least in the case of regression analysis); (2) the assumption that all variables can be considered as observable; and (3) the conjecture that all variables are measures without error. PLS allows the simultaneous modeling of relationships among multiple independent and dependent constructs and enables the researcher to construct unobservable variables measured by

indicators (items). (Chin *et al.*, 2003). Compared with other structural equation modeling techniques, such as LISREL or AMOS, PLS has benefits in that it is less restrictive on measurement scales, sample size, sample data distribution, and residual distributions (Chin, 1998). Simultaneously, it supports both exploratory and confirmatory research (Gefen, Straub, & Boudreau, 2000). We used PLS-Graph version 3.0 with bootstrapping to evaluate our research model. About 51 environmental NGOs were chosen as a target group. We used a convenience sample of environmental NGOs that are active in Environmental issues. These environmental NGOs main mission is Environmental Conservation. The main tool for data gathering was questionnaire. Two main sets of construct in this research were considered in questionnaire, namely Government facilitator role separated in five aspects (see Appendix), and Ecopreneurship functions. In order to determine the level of Ecopreneurship in NGOs, the situation of twenty indicators in the past 3 years at the NGOs were studied. These indicators include:

- (1) environmental education,
- (2) environmental law,
- (3) policy and reform,
- (4) strategic environmental impact assessment or evaluation of issues of environmental protection,
- (5) nature protection and restoration,
- (6) sustainable livelihoods and life,
- (7) water supply and sanitation,
- (8) management of urban materials use (reduced consumption, reuse and recycling),
- (9) management for prevention of water loss prevention,
- (10) use of hazardous substances and industrial waste,
- (11) air quality management,
- (12) management of coastal areas including aquaculture, fishing, etc.,
- (13) efforts in regard to climate changes,
- (14) the implementation of international treaties (trade, business and environment),
- (15) following the cancellation of business permit and the pollution activities,
- (16) sustainable agriculture operations,

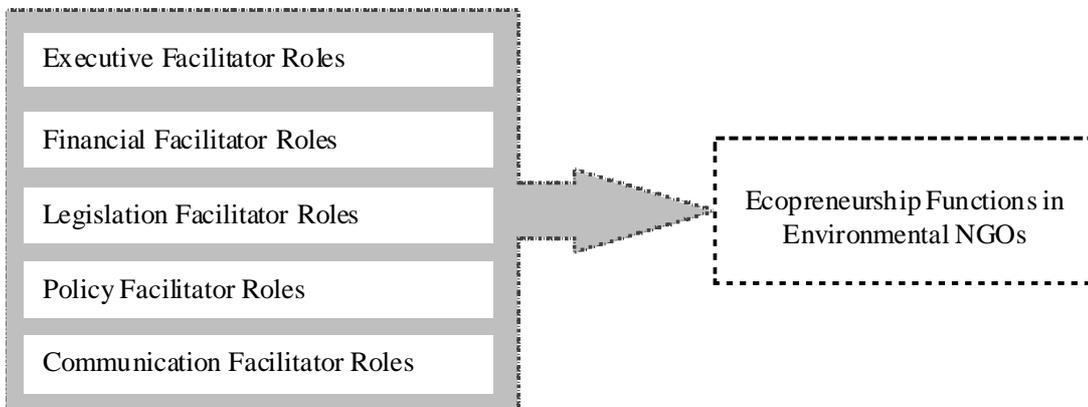


Fig. 1. research conceptual model

(17)management and control of tourism, (18)facilitation and infrastructure development, (19)environmental technology solutions (solar energy , etc.) and (20)water and sewage network.

RESULTS & DISCUSSION

According to the results of descriptive statistics of the main branch, most of the studied environmental NGOs were located in Tehran with the frequency of 39.22 %. Regarding the activity level variable, activity level in the country (47.06%), in province (45.10%) have the highest frequency and international activity level (5.88%) and township (9.80%) had the lowest frequency in the studied sample. From the point of the number of members, 18 organizations with 35.29 % of the studied sample had fewer than 50 members and dedicated the highest frequency to themselves. The members of the organization were averagely 253 persons. From the point of the number of branches, 35 organizations with 68.63 % of the studied sample did not have any branch. The average of the number of branches in the studied organizations was 1.73 branches. According to the variable of the number of activity years, 22 cases with 43.14% of the studied sample had above 9 years experience and the average of experience was 7.32 years that indicated the acceptable experience of the studied organizations. In table (1), the volunteer member frequency illustrated. The result shows that most of them have a less than 50 members. Also eight NGOs have a greater than 350 members. Therefore the obtained results are illustrated from different NGOs with volunteer member frequency ranged from low to high.

The statistical tool used to test the model and the hypotheses proposed is the multivariate analysis technique PLS.

Convergent validity, reliability, and discriminant validity employed to testing the measurement model.

A principal components factor analysis with varimax rotation was used to test the convergent validity. The KMO measure of sampling adequacy was 0.836. That satisfied recommendation value 0.7. The significance of the Barlett’s test of sphericity (Chi-Square = 2200.92, Sig.0.01), factor analysis was suitable for our sample data. Five factors with eigenvalues greater than 1.0 were extracted. The total percentage of variance explained by all factors was 66.91%. As a rule, if the factor loading exceeded 0.5, the item loaded highly on the construct; if the factor loading was below 0.4, the item did not load well on the construct (Hair & Anderson, 1995). As seen in Table 2, the results of the factor analysis showed that all items loaded highly on their related factors and had low cross loadings on other factors. Thus, the data showed good convergent validity.

Cronbach’s alpha, composite reliability (CR) and average variance extracted (AVE) for each construct was examined testing reliability. As shown in Table 3, Cronbach’s alphas of all constructs ranged from 0.739 to 0.861, which were all higher than the minimum threshold value of 0.7 (Nunnally & Bernstein,1994). All composite reliabilities exceeded the recommended threshold of 0.7 (Fornell & Larcker, 1981). The AVE of each construct ranged from 0.567 to 0.706, higher than the acceptable value of 0.5 (Fornell & Larcker, 1981). The above statistics indicated that reliability was satisfactorily met (see Table 3).

Discriminant validity was assessed by ensuring that the square of the parameter estimate between two constructs (ϕ) is less than the average variance extracted (AVE) from the constructs examined. The discriminant validity of the measures was satisfied. Thus, with acceptable reliability, convergent validity, and discriminant validity, we proceeded to test the causal model and the research Hypotheses (see Table 4).

Table 1. Environmental NGOs volunteer members quantity (n=51)

Volunteer Members	Frequency	Frequency per cent
No member	1	1.96
50>	18	35.29
50-100	9	17.65
100-150	8	15.69
150-200	1	1.96
200-250	2	3.92
250-300	3	5.88
300-350	2	3.92
350-400	1	1.96
400-450	6	11.76
450<	1	1.96
Total	51	100

Table 2. Principal components analysis with varimax rotation

Indicators	Component				
	1	2	3	4	5
EF1	.708	.159	.219	-.053	.301
EF2	.760	.300	.012	.182	.170
EF3	.628	.012	.253	.284	.123
EF4	.732	-.077	.177	.258	.102
EF5	.623	.275	.373	.161	.108
FF1	.120	.800	.086	.227	.134
FF2	.024	.828	.218	.033	.175
FF3	.222	.699	.120	.022	.176
RF1	.419	.191	.621	.237	.178
RF2	.315	.223	.730	.144	.062
RF3	.068	.035	.557	.109	.038
RF4	.096	.325	.570	.186	.405
PF1	.124	-.109	.306	.727	.035
PF2	.163	.179	.021	.722	.255
PF3	.181	.238	.122	.743	-.004
PF4	.301	.068	.435	.533	.136
CF1	.018	.136	.341	-.056	.805
CF2	.170	.226	.279	.117	.781
CF3	.343	.092	-.081	.253	.801
CF4	.451	.266	-.144	.159	.657

Table 3. Item loadings on related factors and t-values (n = 51)

Factors	Item	Standard Loading	t_value	AVE	CR	Cronbach's Alpha
Executive Facilitator Roles	EF1	0.779	5.66	0.607	0.885	0.838
	EF2	0.822	9.18			
	EF3	0.740	5.08			
	EF4	0.764	5.23			
	EF5	0.789	5.83			
Financial Facilitator Roles	FF1	0.836	9.85	0.693	0.871	0.777
	FF2	0.877	10.22			
	FF3	0.782	5.76			
Legislation Facilitator Roles	RF1	0.821	9.13	0.567	0.838	0.739
	RF2	0.806	8.89			
	RF3	0.633	3.49			
	RF4	0.737	5.18			
policy Facilitator Roles	PF1	0.766	5.75	0.583	0.848	0.761
	PF2	0.755	5.62			
	PF3	0.769	5.78			
	PF4	0.763	5.73			
Communication Facilitator Roles	CF1	0.800	9.06	0.706	0.906	0.861
	CF2	0.855	9.97			
	CF3	0.881	10.57			
	CF4	0.580	2.94			

Table 4. Correlation coefficient matrix and square roots of AVEs

	EF	FF	RF	PF	CF
EF	0.779				
FF	0.396	0.833			
RF	0.607	0.486	0.753		
PF	0.541	0.327	0.560	0.763	
CF	0.535	0.458	0.480	0.379	0.840

Table 5. Path coefficients as well as significant and multicollinearity test

Path	Standard Estimation	t-value	VIF
Executive Facilitator → Ecopreneurship	0.052	1.21	1.953
Financial Facilitator → Ecopreneurship	0.210	3.48	1.436
Legislation Facilitator → Ecopreneurship	0.198	3.08	2.016
policy Facilitator → Ecopreneurship	0.167	2.43	1.612
Communication Facilitator → Ecopreneurship	0.297	3.68	2.592

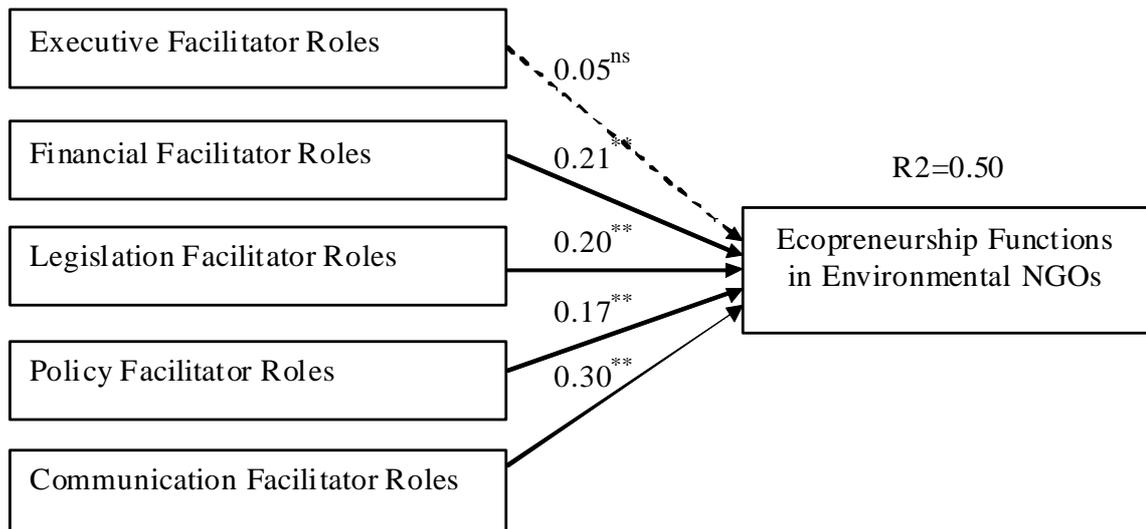


Fig. 2. structural model

After determining that the measurement model was satisfactory, we assessed the structural model. The output generated for each hypothesis was analyzed for multicollinearity. There was no problem of multicollinearity within the analysis as the correlation between each of the independent variables was below the threshold fig. 2 of 5. Variance inflated factor (VIF) value was found ranged from 1.43 to 2.59 and no VIF value above 5 in the coefficients analysis (see Table5). This means that the predictor variables each correlate highly with the dependent variable but correlate minimally with each other. The data was also examined for Outliers as suggested by Pallant (2001).

CONCLUSION

The results of the path analysis showed that Government's Executive Facilitator path coefficient (0.052) has not significantly positive influence on the entrepreneurial functions of NGOs in environmental issues. In other word this coefficient was not considerable. This result showed that Executive Facilitator has not prediction role for entrepreneurial functions of NGOs. Also the results of the path analysis showed that Government's Financial Facilitator have significant effect on entrepreneurial functions of NGOs. Because t value for this parameter was calculated higher than 1.96. In other word Financial Facilitator (0.210) has significantly positive influence on the entrepreneurial functions of NGOs. Other construct including Government's Legislation Facilitator (0.198), Government's policy Facilitator (0.167) and Government's Communication Facilitator (0.297) had significantly positive influence on the entrepreneurial functions of NGOs, t value for this parameters were greater than cutoff point 1.96.

The research results show that from the five roles of governments in developing entrepreneurial efforts of environmental NGOs, four roles of funding, legislation, policy and communication have a significant role in facilitating the development of these measures. Regarding the executive role, the results show that this factor has no significant role. From the four factors, the communication factor has the highest impact and role and the financial role is at the second position.

The rules and policies are situated at the next ranks. The above results suggest that the role of governments is high facilitating role in developing the environmental activities of NGOs and the existence of these supports is one of the main requirements for the development of entrepreneurial activities of these organizations. So the lack of government support and facilitation has no result

except reduction of entrepreneurial activities of volunteer organizations. The following implication for NGOs managers and government organizations based on research results proposed.

Communication Facilitator was the first rank among government facilitator roles in Ecopreneurship functions. In other words with providing Communication Facilitator by government Ecopreneurship functions would be increased in compare to other facilitation role. Therefore facilitation communication of the local NGOs with the national and international NGOs, increasing the level of trust of governmental agencies to environmental NGOs, improving Useful knowledge and experience of the law executors and governmental agencies dealing with NGOs and increasing the level of NGOs influence in forcing the government to abandon the destructive environmental projects must be considered more.

Financial Facilitator was the second rank among government facilitator roles in Ecopreneurship functions. Therefore Solving the financial problems o NGO by assigning different projects, Providing the basic necessities of Environmental NGO and attention to Existence of governmental executive systems to support those people who have sufficient financial power and they are effective in the policies and revisions of country rules, Would be necessary as a Financial Facilitator.

Legislation Facilitator was the third rank among government facilitator roles in Ecopreneurship functions. Therefore decreasing government control over NGOs activities that lead to self-censorship is the NGOs, focusing on Existence of legal paths in governmental organizations and non-discriminatory behavior in cooperation with NGOs and attentions to Legal and logical support of governmental organizations from the environmental NGO in the international community would be beneficial as a Legislation Facilitator.

Policy Facilitator was the fourth rank among government facilitator roles in Ecopreneurship functions. Therefore any efforts in regards to Supporting the research programs and linkage of research accomplishments associated with new policies and implementing programs, Using the NGOs representatives as advisers, ministers and officials attended the Council's decision, Participation of NGOs in setting the environmental policies in the Fifth Development Plan and Holding discussion sessions with parliamentarians and members of City Council, would be beneficial for Ecopreneurship functions levels in NGOS. Executive Facilitator as other

government facilitator roles don't show significant role in Ecopreneurship functions levels in NGOS. Therefore this role of governments is not necessary for Ecopreneurship functions levels in NGOS.

Also, it is worth pointing out that our study has some limitations. First, our research involved Environmental NGOs as respondents, and they were not representative of all NGOs. Therefore testing this model in other target group such a Universities, other NGOs, Farmers Organization(FBO) and etc, that their efforts is related to environmental issues would be useful. Second our proposed model uses perception of Environmental NGOs memberships of Ecopreneurship efforts but not actual efforts as the dependent variable. Our empirical study is restricted to examining a specific efforts and targeting a particular actor in environmental issues in Iran as research subjects. Future studies can consider including other groups and additional Government facilitator construct in model to improve the generalizability of the results. These results would be beneficial combination of finding in regard to government and Entrepreneurship efforts level for environmental issues.

Appendix

All questions used a five-point scale from (1) least important to (5) most important. Executive Facilitator (Number of items: 5, Cronbach's $\pm=$.83)

1. Preparing required facilities for production and broadcasting of joint radio and television programs
2. Creating the offices and organizational units in governmental organizations to support NGOs
3. Predicting the spaces and facilities to hold the gatherings and public of NGOs
4. Implementation of joint projects and cooperation in environmental NGOs activities with government
5. Limited role of government in environmental programs and the dominant role of NGOs and citizens' initiative.

Financial Facilitator (Number of items3, Cronbach's $\pm=$.77)

1. Existence of governmental executive systems to support those people who have sufficient financial power and they are effective in the policies and revisions of country rules.
2. Providing the basic necessities of Environmental NGO
3. Solving the financial problems o NGO by assigning different projects.

Legislation Facilitator (Number of items4, Cronbach's $\pm=$.73)

1. Legal and logical support of governmental organizations from the environmental NGO in the international community.

2. Lack of strong government control over NGOs activities that lead to self-censorship is the NGOs.

3. Existence of legal paths in governmental organizations and non-discriminatory behavior in cooperation with NGOs.

4. The cumbersome nature and lack of laws to license and NGO activities. Policy Facilitator (Number of items4, Cronbach's $\pm=$.76)

1. Supporting the research programs and linkage of research accomplishments associated with new policies and implementing programs

2. Using the NGOs representatives as advisers, ministers and officials attended the Council's decision

3. Participation of NGOs in setting the environmental policies in the Fifth Development Plan

4. Holding discussion sessions with parliamentarians and members of City Council.

Communication Facilitator (Number of items4, Cronbach's $\pm=$.86)

1. To facilitate communication of the local NGOs with the national and international NGOs.

2. Useful knowledge and experience of the law executors and governmental agencies dealing with NGOs.

3. The level of NGOs influence in forcing the government to abandon the destructive environmental projects.

4. The level of trust of governmental agencies to environmental NGOs.

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