IV: EMPIRICAL FINDINGS

After all the variables are measured, the next step is relating the independent variables to the dependent variables.

Multivariate Analysis

In predicting one dependent variable from two or more independent variables, the most appropriate method is multiple regression analysis. This method will be used to predict "corporate action for social purpose" and "innovative change" one at a time. The process is as followed:

1) Finding the product-moment correlation between every independent variable and each of the dependent variable.

2) The independent variables that correlate more than $\pm.20$ to each dependent variable will be used in the multiple regression analysis.

1. Predicting "Corporate Action for Public Purpose"

Table 4.1 shows the result of the multiple regression analysis for "corporate action for public purpose". This tables shows the correlation coefficient of each independent variable to "corporate action for public purpose". Also shows are the t-value, Dubbin-Watson statistic, multiple correlation coefficient (R), and coefficient of determination (R^2)

Table 4.1

Multiple Regression Analysis: Corporate Action for Public Purpose as the Dependent Variable
(n=20, the data is from the Central region group)

Independent Variables	Correlation	t-value
1. Leaders exposure to modernity (Average number of time leaders travelled to Bangkok in one year)	-.56	-2.68
2. Frequency of formal meetings	.53	.25
3. Level of leaders education	-.45	.19
4. Size of Leaders (combination of height and weight)	.23	3.09
Leaders Values		
5. Selflessness	-.37	1.99
6. Conflict Avoidance	.32	1.52
7. Equality I: More Responsibility for the Rich	-.25	.26
8. Equality II: Wealth Equality	-.25	.27
9. Change Orientation	-.23	1.92
Dubin-Watson statistic = 2.045		
Multiple Regression Coefficient (R) = .896		
Coefficient of Determination (R^2) = .803		

Some explanation of the relationship between all independent variables to the dependent variable will be done in the next chapter. This chapter will concentrate on presenting the empirical

findings. Table 4.2 will follow the pattern of Table 4.1. But this time the dependent variable will be "innovative change".

Table 4.2

Multiple Regression Analysis: Innovative Change as the Dependent Variable (n=20, the data is from the Central region group)

Independent Variable	Correlation	T-value
1. Wealth of the tambon	.39	1.10
2. Age of the leaders	-.49	-1.41
3. Level of leaders eduction	.60	2.26
4. Frequency of formal meetings	.22	2.514
Leaders Value		
5. Action Propensity	.36	.92
6. Popular Participation	-.30	-1.37
7. National Commitment	.29	1.42
8. Change Orientation	.26	.50
9. Economic Development	.26	1.75
10. Honesty	.22	1.68
Dubin-Watson statistic = 2.00		
Multiple Correlation Coefficient (R) = .932		
Coefficient of Determination (R^2) = .81		

Multiple regression analysis shows how much the variance of the dependent variable can be explained by two or more independent variables. However, there is one problem in the multiple regression analysis. That is if there are correlation among the independent variables, the coefficient of determination (R^2) may

be larger than it really is. To minimize such problem, stepwise multiple regression can be used. The stepwise regression analysis includes additional independent variables one at a time, in successive stage, each raising the dimensions of the analysis by one. A great many independent variables can be handled on the computer using this procedure.

So it is appropriate to apply the stepwise regression analysis in predicting the community activeness of both dimensions. Each dimension is analyzed one at a time. The procedure is started, in each dimension, by selecting the independent variable that provides the greatest reduction in the unexplained variation in the dependent variable - at each stage. In doing this, the computer performs simple regression separately for each independent variable, printing the result for the best one. The next step of the program performs separate multiple regressions, each combing one of the remaining independent variables with those selected in the previous stages. Again, the one that reduces unexplained variations the most is chosen to be permanently included in all future stages. The process continues in successively higher dimensions either until every variable has been included in a multiple regression involving them all, or until no further reduction in the unexplained variation is possible.[1]

Table 4.3 shows the summary of the stepwise regression analysis of "Corporate Action for Public Purpose".

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[1] *See Lawrence L. Lapin, Statistics for Modern Business Decisions (N.Y.: Harcourt Brace Jovanovich, 1973), Chapter 14.*

Table 4.3

Summary of the Stepwise Regression Analysis: Corporate Action for Public Purpose is the Dependent Variable

(n=20, data from the Central Region)

Independent Variable	Multiple R	R^2	Changing in R^2	Simple Correlation
1. Exposure to Modernity	.5557	.308	.308	-.556
2. Size of Leaders	.6826	.466	.157	.226
3. Conflict Avoidance	.8269	.684	.218	.319
4. Selflessness	.8427	.710	.026	-.367
5. Frequency of Formal Meetings	.8517	.725	.015	.530
6. Education	.8538	.729	.004	-.45
7. Equality I: Wealth Equality	.8545	.7302	.001	-.25
8. Change Orientation	.8548	.7307	.0005	-.23

Equality II: More Responsibility for the Rich does not increase the coefficient of determination even though its correlation of -.25 with corporate action for public purpose. From Table 4.3, it is interesting to see that some independent variables such as education and frequency of formal meetings with correlation of .53 and -.45 respectively does not increase the coefficient of determination significantly. Three variables, exposure to modernity, size of leaders, and the value of conflict avoidance together account for 68% of the variance of the corporate action for public purpose.

Table 4.4 shows the stepwise regression analysis with innovative change as the dependent variable.

Table 4.4

Summary of the Stepwise Regression Analysis: Innovative Change is the Dependent Variable

Independent Variable	Multiple R	R^2	Changing in R^2	Simple Correlation
1. Education	.6046	.365	.365	.604
2. Age of Leaders	.6994	.489	.124	-.490
3. National Commitment	.7864	.618	.129	.287
4. Frequency of Formal Meetings	.8220	.676	.057	.217
5. Popular Participation	.8410	.707	.031	-.303
6. Honesty	.8558	.732	.025	.220
7. Economic Development	.9071	.823	.090	.258
8. Action Propensity	.9229	.852	.029	.364
9. Wealth of the tambon	.9305	.866	.014	.338
10. Change Orientation	.9330	.870	.004	.260

As showed in Table 4.4, with the stepwise regression analysis, the three most important variables that predict innovative change are educational level of the leaders, age, and the value of national commitment. These three variables account for 68% of the variance of "innovative change".

Comparative Value Commitment of Thai Leaders with the ISVIP

The scales used to measure leaders values in this study were applied to India, Poland, United States, and Yugoslavia. So it is possible to compare the result of the measurement in Thailand to these four countries. Table 4.5 shows such comparision.

Table 4.5

Comparative Value Commitment of Five Countries[a]

	Thailand (n=1040)	India (n=946)	Poland (n=889)	United States (n=905)	Yugoslavia (n=1178)
1. Change Orientation					
Mean	2.09	3.47	3.33	2.83	3.27
S.D.	.66	.42	.38	.38	.37
2. Action Propensity					
Mean	1.90	1.60	2.15	2.48	2.06
S.D.	.61	.47	.39	.41	.36
3. Economic Development					
Mean	2.50	3.64	3.11	2.83	3.45
S.D.	.74	.37	.44	.42	.35
4. Economic Equality[b] (not include Thailand)					
Mean	-	3.50	2.74	1.72	3.03
S.D.	-	.43	.46	.43	.50
5. Popular Participation					
Mean	2.75	2.13	2.26	2.74	2.74
S.D.	.71	.46	.39	.42	.43
6. Conflict Avoidance					
Mean	2.89	3.13	2.42	2.13	2.85
S.D.	.73	.57	.47	.35	.39
7. National Commitment					
Mean	2.46	2.57	2.70	2.29	2.34
S.D.	.79	.60	.38	.35	.38
8. Selflessness					
Mean	2.83	3.41	3.23	3.15	3.21
S.D.	.75	.31	.42	.37	.39
9. Honesty					
Mean	2.94	3.38	3.13	3.28	3.48
S.D.	.71	.46	.35	.37	.32

a) The figures of India, Poland, United States, Yugoslavia are from the ISVIP (Page 79; Mean scores are adjusted so that maximum commitment to a value equals 4.00 and the minimum commitment (i.e. maximum rejection) equals 1.00.

b) As mentioned in Chapter III, for the Thai samples, Equality has two dimensions: more responsibility for the rich has the mean of 3.08 and the standard deviation is .68. Equality II: wealth equality has the mean of 2.54 and the standard deviation is .79.

Thai leaders seem to have unique characteristics, comparing to the other four countries. Thai leaders are lower than leaders of other four countries in Selflessness, Honesty, and Change Orientation. Thai leaders are more similar to the Indian leaders than to the other three countries in Action Propensity, National Commitment and Conflict Avoidance. Thailand is on the opposite end of India in regard to Economic Development and Popular Participation. On the whole it can be concluded that the values of Thai leaders are more similar to the Indian leaders than to Poland, United States, and Yugoslavia. This may due to some similarity of the culture and the stage of modernity between India and Thailand. And as the samples of Thai leaders are from three regions of Thailand it is interesting to compare the values of leaders in all three regions. Table 4.6 shows the comparision. Like the cross-national comparision, the score also range from 1 to 4. The maximum commitment to a value equal to 4 and the maximum rejection equal to 1.

Table 4.6

Comparative Value Commitment of Thai Leaders in Three Regions (all in terms of means from the value scales)

Values	Region		
	Central (n=501)	Northeast (n=250)	Southern (n=269)
1. Change Orientation	2.079	2.060	2.098
2. Action Propensity	1.901	1.862	1.923
3. Economic Development	2.409	2.624	2.316
4. Equality I: More Responsibility for the rich	3.098	2.986	3.115
5. Equality II: Wealth Equality	2.723	2.524	2.598
6. Popular Participation	2.663	2.840	2.815
7. Conflict Avoidance	2.899	3.000	2.750
8. National Commitment	2.473	2.449	2.470
9. Selflessness	2.836	2.767	2.918
10. Honesty	2.886	2.975	3.022

Table 4.6 shows that there are some regional difference in regard to the values of Thai local leaders. However, the difference is not so great as when comparing to the other four countries of the ISVIP. It shows that in fact there is really a pattern "unique" for the Thai leaders. In the same time Table 4.6 should prove the reliability of the measuring scales applied to Thai samples, as the regional difference is much smaller than the cross-national difference. It should also establish the reliability of data collection in this study. Because the leaders interviews in each region were done by the different group of interviewers.

Chapter Summary

In this chapter all variables measured by the process described by the previous chapter were analyzed. Two methods of multivariate analysis are utilized. They are the multiple regression analysis and the stepwise regression analysis. It is found that more than 80% of the variance in both dependent variables, corporate action for public purpose and innovative change, can be explained by independent variables in this research. At the end of the chapter, the cross-national comparision of leader values are shown. It indicates that there are some contrast difference in some values between the Thai and Indian leaders. But on the whole, it can be said that the Thai leaders are more similar to the Indian leaders than to the leaders of the United States, Poland, and Yugoslavia.