Chapter 5
Data Analysis and Hypothesis Testing

This chapter presents the analysis of the collected data and testing of the hypotheses. The first part of the chapter reports the response rate, non-response errors, and overall status of the respondents. The second part of the chapter deals with testing of the 7 hypotheses according to the proposed methodology in chapter 4.

5.1 Response Rate

Table 5.1 summarizes the details of questionnaire mailed out, returned, and non-response. A total of 487 questionnaires were mailed out to the target companies. Fifty-five were returned within 2 weeks and another 45 were received two weeks later. 21 questionnaires were returned as not currently in business. Two measures were undertaken to urge the missing companies to response: telephone call and post card. Telephone calls were made to the companies located in Bangkok area while post cards were mailed to the rest. Another 44 were received in the next two weeks and another 20 in the following week. Altogether, 164 questionnaires were returned but only 111 were qualified for the analysis. The response rate, therefore, is 2.79%. The response rate is acceptable for the social science research (Frankfort-Nachmias, C. and Nachmias, D, 1997) and, above all, is sufficient to perform the planned statistical tests (larger than 100) (Schroeder, Sjoquist, and Stephan, 1986).

Table 5.1: Summary of Questionnaire Returned

Details of Questionnaire Returned	Survey	Percent
Populations	513	100.00%
Deduct In-depth Interview	5	0.97%
Deduct Pilot Study	21	4.09%
Total Questionnaire Mailed Out	487	94.93%
Response		
Questionnaire Mailed Out	487	100.00%
Returned within 2 weeks	55	11.29%
Returned within 4 weeks	45	9.24%
Returned within 8 weeks	44	9.03%
Returned within 9 weeks	20	4.11%
Total Response	164	33.68%
Questionnaire Returned		
not currently in business	37	7.60%
incomplete	16	3.29%
Usable Response	**111**	**22.79%**
Non-Response	**323**	**66.32%**

5.2 Non-response Bias

As the effect of non-response on the findings and the subsequent analysis and conclusion can be substantial, non-response bias has to be checked to prevent such problems. Armstrong and Overton (1977) suggest the comparison between the response of the first-wave and that of the second-wave as the examining method. The rationale is that late respondents better represent those in the sample who did not respond than do early respondents. In this study, the means of such

variables as age, personal experience in export, firm's experience in export, and number of employees, of first-wave and second wave respondents are compared using multivariate analysis of variance (MANOVA).

First-wave of the respondents arrived within two weeks after the mailing. Second-wave came two weeks after the first-wave. Table 5.3 exhibits the results of the means comparison. MANOVA discovers no significant difference in any of the tested variables, between the two groups of the respondents. It is therefore concluded that there is no significant difference between the responding and non-responding, and that non-response bias does not significantly impact the testing of the hypotheses of this study.

Table 5.2: Non-response Error Analysis (MANOVA).

Variables	Response		Sig. Diff
	1st Wave (N=40)	2nd Wave (N=35)	
Respondent's age	41.18	39.43	0.62
Personal Experience in Export	11.78	10.09	0.36
Firm's Experience in Export	12.40	11.69	0.73
Number of Employees	80.65	78.70	0.60

5.3 Sample Characteristics

5.3.1 General Information

Tables 5.3.1-5.3.4 summarize the general information of the respondents and their companies. On average, the respondents are 40 years old, with an average of 11 years in export business. Their companies, on average, have been in export business for 12 years, with average 81 employees and 6 product lines, which are exported to 8 countries. 85% of the sample operate with 50 - 100 million Baht of capital. 72% of the respondents are owners of the firm. The rest are children, spouse, or relative of the owner. Only 14% of the respondents do not relate to the owner by blood. However, most of the respondent (85.6%) reports that they have a full authority in making daily business decision, and 88.3% reports that they are the persons who develop export strategies for the firm. 91% of the respondents operate as a stand-alone firm (as opposed to a subsidiary of bigger firms). 82% of the sample produce their own products to export. 78.4% consistently has export plan. 60.4% has setup export department to take care of exporting activities, but only 22.5% hires a professional exporter to handle the tasks. 67.6% has their own brand names, while 68.5% produce and export under other firms' brands.

Table 5.3.1: General Information of the Firms

	Minimum	Maximum	Mean	Std. Deviation
Owner's Age	20	65	40	9.41
Personal Experience in Export	1	30	11	7.87
No. of Employee	2	200	81	76.82
Product Line	1	30	6	6.28
No. of Export Target Country	1	50	9	8.39
Company' Experience in Export	1	45	12	9.05

Table 5.3.2: Capital of the Firm

Million Baht	Frequency	Percent
Over 200	11	9.9%
100 - 200	15	13.5%
50 but less than 100	34	30.6%
Below 50	51	45.9%
Total	111	100.0%

Table 5.3.3: Ownership and Relationship with Owner

Respondent	Frequency	Percent
Owner	72	64.9%
Owner's child	5	4.5%
Owner's spouse	11	9.9%
Owner's spouse	11	9.9%
Owner's relative	9	8.1%
Owner's relative	9	8.1%
Employee	12	10.8%
Employee	12	10.8%
Others	2	1.8%
Others	2	1.8%
Total	111	100.0%
Total	111	100.0%

Table 5.3.4: Overall status of the firm's operation

	Count	Percentage
The respondent is the decision maker	95	85.6%
The respondent is the strategist of the firm	98	88.3%
The firm operates as a manufacturer	91	82.0%
The firm operates as a stand alone firm	101	91.0%
The firm consistently has export plans	87	78.4%
The firm has an export department	67	60.4%
The firm is a brand owner	75	67.6%
The firm hires a professional exporter	25	22.5%
The firm is an original equipment manufacturer	76	68.5%

Table 5.3.5: Respondents' opinion towards exporting activities

Respondents' opinion towards exporting activities	Strongly disagree	Rather disagree	Un certain	Rather agree	Strongly agree	Mean	SD
Exporting activities are critical to firm's survival. (SURV)	3.6	4.5	7.2	34.2	50.5	4.23	1.02
Competition of the future will be in international market. (INTFOC)	2.7	5.4	7.2	39.6	45	4.19	.98
Export performance has to be maintained excellent in order to survive in business. (EXPXCL)	1.8	10.8	2.7	33.3	51.4	4.22	1.05
Your firm will focus more on international market in order to survive the competition. (CFOCEXF)	0.9	6.3	9	32.4	51.4	4.27	.93
Exporting is too risky. (RISKY)	9.9	37.8	22.5	19.8	9.9	2.82	1.16
Exporting is too difficult to pursue. (DIFF)	27.9	49.5	12.6	6.3	3.6	2.08	.99

Table 5.3.5 summarizes the respondents' opinion towards exporting activities. The researcher asks the respondents to rate their opinion on each of the listed statement. These statements have been used in the international business literature in measuring risk aggressiveness of entrepreneur regarding exporting activities (Aaby and Slater, 1989; Gronhaug and Lorenzen, 1982). The opinion is rated on 5-point Likert scale, where 1 represents 'strongly disagree' and 5 'strongly agree'.

On average, the sample is aggressive in exporting venture and agrees that export is important to the survival of their business (mean = 4.23, SD 1.02). 84.6% of the respondents believe that international market will be an important competing field of the future (mean = 4.19, SD 0.98). Most of the respondents believe that in order to survive the competition they have to focus more on international market involvement (83.4%, mean = 4.27, SD 0.93), and to excel in export venture (84.4%, mean = 4.22, SD 1.05). On average, the respondents do not perceive that export venture is too risky (47.7%, mean = 2.82, SD 1.16) nor too difficult to pursue (77.4%, mean = 2.08, SD 0.99).

It should be noted, however, that despite the aggressiveness and necessity of the respondents to engage in export ventures they are not quite convinced that export ventures are not risky or difficult to pursue.

Table 5.3.6 reports the respondents' opinion towards impacts of social networks on their exporting activities. The respondents are asked to rate their opinions towards each statement on 5-point Likert scale, where 1 represents 'strongly disagree' and 5 'strongly agree'. This part of questionnaire intends to derive a perceptual conclusion of the impact of social network on export performance.

Table 5.3.6: Respondents' opinion towards impacts of social networks on their exporting activities

Respondents' opinion towards impacts of social networks on their exporting activities	Strongly disagree	Rather disagree	Un certain	Rather agree	Strongly agree	Mean	SD
Social network is an important strategy to gain important information that help smoothing export activities. (SOCSMTH)	1.8	5.4	16.2	53.2	23.4	3.91	.88
Social network is an important strategy to gain privilege that help smoothing export activities.	4.5	6.3	19.8	49.5	19.8	3.74	1.00
Social network helps your firm to enter the international market. (SOCCOMP)	1.8	2.7	26.1	49.5	19.8	3.83	.84
Social network helps your firm to increase export performance. (SOCSLEG)	3.6	1.8	33.3	43.2	18	3.70	.91
Social network creates shortcuts in governmental procedures. (SOCSCT)	4.5	5.4	18.9	40.5	30.6	3.87	1.05
In general, social network is important to your exporting activities. (SOCGEN)	3.6	10.8	14.4	50.5	20.7	3.74	1.02

Majority of the respondents agrees that social network is important to exporting activities. Social network is an important strategy to gain useful information (76.6%, mean = 3.91, SD 0.88) and privilege (69.3%, mean = 3.74, SD 1.00) that help smoothing export activities (mean = 3.74, SD 1.00). Whereas 71.1% agree that social network creates shortcuts in governmental procedures (mean = 3.87, SD 1.05). 69.3% believe that social network helps their firms to enter international market (mean = 3.83, SD 0.84) and 61.2% believe that social network helps their firm to increase export performance (mean = 3.70, SD 0.91). 71.20% believe that social network is important to their exporting activities (mean = 3.74, SD 1.02).

5.3.2 Social Network of the Sample

The purpose of this part is to reports characteristics of the respondents' social network for export activities. The first section of this part reports each dimension of social network, i.e. centrality, proximity, expressiveness1, and expressiveness2 of the overall respondents. In the second section, the respondents are divided into two groups, high performance and low performance, to observe each dimension of social network of each group. Social network of the high performance firms represents the successful social network for export activities.

5.3.2.1 Social Network of the Overall Respondents

a) Individual Entities

Table 5.3.7 summarizes the response to the questions asked in the Social Network part. The questionnaire provides a list of 36 entities that are most likely to be useful for export activities. The column 'Most Referred' reports the individuals that are most referred by the respondents in order to assist them in exporting activities. The number in the parenthesis represents the number of the referring respondents. Business friend in the same industry is most referred (71), followed by customer (62), supplier (61), vice manager and others higher in rank of commercial bank (57), and unit head of commercial bank (55).

The column 'Centrality' reports the average number of individuals of the referred individuals. The respondents are asked to give the number of person of each individual that they contact to help smoothing their export activities. The largest number of contacted individual appears to be customer (13.92), followed by supplier (11.73), business friend from different industry (11.31), business friend in the same industry (10.69) and member of various industry associations (10.11).

The column 'Proximity' reports the frequency that the respondent contacts to each individual on monthly basis to gain helps in export business. The group of individuals that is most frequently contacted is customer (6.67), followed by supplier (5.09), kin (4.94), business friend in the same industry (4.07), and relative (3.11).

The column 'Expressiveness1' reports the degree of closeness that the respondent rates on a 7-point Likert scale. The respondents are asked to rate on how close they are to the referred individuals. The group of individuals that gain the highest average expressiveness1 is business friend in the same industry (6.39), followed by customer (6.21), supplier (5.02), kin (4.74), and vice manager, or higher, of commercial bank (4.55).

The column 'Expressiveness2' reports the degree of closeness, measured by the method of contact used. Five methods of contacts are available in the form of Likert scale, where 1 is closet method of contact and 5 is most distant. The group of individuals that gain the highest average expressiveness2 is business friend in the same industry (3.94), followed by customer (3.65), suppliers (3.16), kin (3.15), business friend in different industries (3.00), and vice manager or higher of commercial banks (3.00).

Table 5.3.7: Summary of the Social Network Response (Individual)

	Most Referred [a]	Centrality [b]	Proximity [c]	Expressiveness1 [d]	Expressiveness2 [e]
1	Friend in the same industry (71)	Customer (13.92)	Customer (6.67)	Friends in the same industry (6.39)	Friends in the same industry (3.94)
2	Customer (62)	Supplier (11.73)	Supplier (5.09)	Customer (6.21)	Customer (3.65)
3	Supplier (61)	Friends from different industries (11.31)	Kin (4.94)	Supplier (5.02)	Supplier (3.16)
4	Vice Manger or higher: Commercial Bank (57)	Friends in the same industry (10.69)	Friends in the same industry (4.07)	Kin (4.74)	Kin (3.15)
5	Department Head of Commercial Banks (55)	Industry association members (10.11)	Relatives (3.11)	Vice Manger or higher: Commercial Bank (4.55)	Friends from different industries (3.00) Vice Manger or higher: Commercial Bank (3.00)
6	Friends from different industries (49)	Kin (7.46)	Friends from different industries (2.76)	Unit Head: Commercial Bank (4.35)	Relatives (2.93)
7	Kin (43)	Unit Head: Commercial Bank (3.81)	Secretary or Low-rank Officer: Commercial Bank (2.70)	Friends from different industries (4.27)	Department Head of Commercial Banks (2.92)
8	Secretary or Low-rank Officer: Commercial Bank (40)	Secretary or Low-rank Officer: Commercial Bank (3.65)	Unit Head: Commercial Bank (1.20)	Relatives (4.26)	Industry association members (2.87)
9	Industry association members (38)	Committee Members: Local Chamber of Commerce (3.53)	Industry association members (1.11)	Secretary or Low-rank Officer: Commercial Bank (4.23) Industry association members (4.23)	Secretary or Low-rank Officer: Commercial Bank (2.81)
10	Relatives (31) Secretary or low-rank officer: DEP (31)	Vice Manger or higher: Commercial Bank (3.48)	Vice Manger or higher: Commercial Bank (1.06)	Secretary or low-rank officer: DEP (4.20)	Secretary or low-rank officer: DEP (2.74)
Average	25.64	3.68	1.28	3.78	2.43
Max	71	13.92	6.67	63.9	3.94
Min	9	1	0.26	2.73	1.46

a.   number in the parenthesis represent the number of respondents who refer to the corresponding individual
b.   number in the parenthesis represent the average number of the corresponding individuals who are contacted by respondents
c.   number in the parenthesis represent the average frequency of contact per month made by the respondents to the corresponding individuals
d.   number in the parenthesis represent the average degree of closeness, as measured by Expressinvess1 (perceived closeness), of the relationship between the respondents and the corresponding individuals
e.   number in the parenthesis represent the average degree of closeness, as measured by Expressiveness2 (method of contact), of the relationship between the respondents and the corresponding individuals

Diagram 5.1 reports the above information in the form of radar graph. The way of presentation provides an insight into the data from different angle.

It is not surprising that customer and supplier are highly ranked in all dimensions of social network. The most import task of firms is still to enlarge customer account. In so doing, firms have to guarantee their customer with best quality and most reliable delivery of products. As a consequence, supplier is to be kept close in touch for the best quality and most reliable delivery of raw materials.

Business friend is another group of individuals that is also highly ranked. While business friends in the different industries outnumber those in the same industry, the former is reported more distant in term of relationship to the respondents than the latter. This shows that the relationship among firms in this industry is quite cohesive, although they are direct competitors to one another. In addition, this probably shows that the industry is not too competitive and is not fully served. The strong tie among the firms in the industry is probably for the purpose of information sharing or increasing bargaining power towards the government.

Officer of commercial bank is moderately ranked in all dimensions of social network. It is interest to note that the firms contact more number of commercial bank officers in the lower rank than in the higher rank. However, they are reportedly closer to the higher rank officers than to the lower ones. Lower rank officers of commercial are important in assisting the firms' owners to proceed through the bank procedures. Therefore, the owners have to contact to officers of this level with greater number and frequency. Higher rank officers are important in making major decision, especially concerning loans and investments. The information and

Diagram 5.1: Social Network with the

individual entities of the Overall Respondents
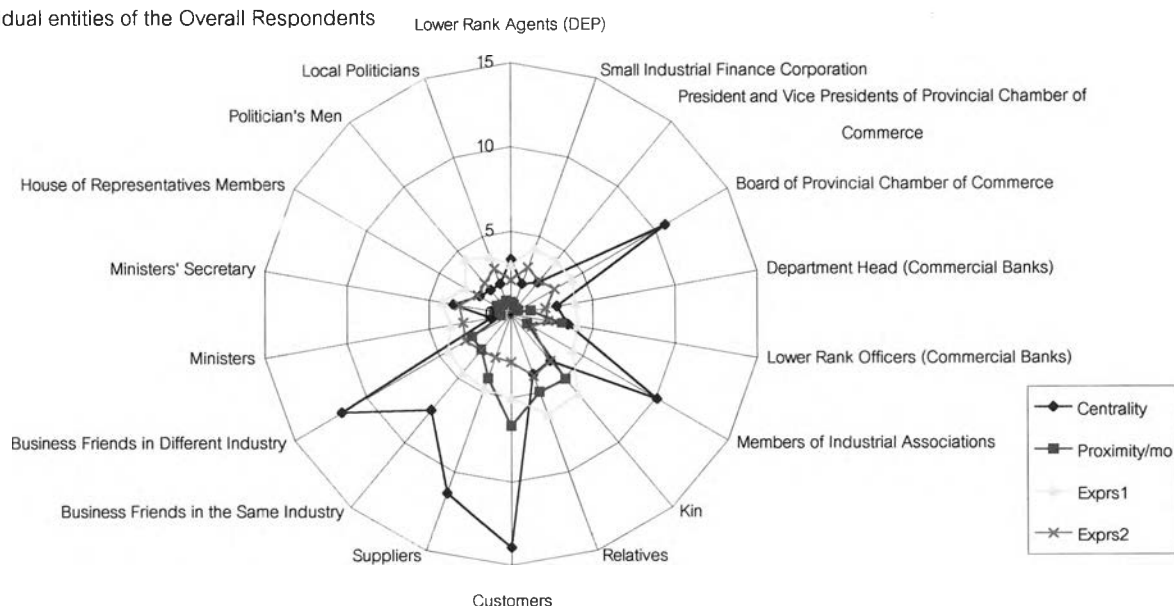
assistance that the firms' owners will receive from these higher rank officers are far more important than that from the lower ones. Therefore, despite the smaller number of person contacted and lower frequency, the higher rank officers are more closely contacted.

b) Organizational Entities

In term of organization (table 5.3.8), the organization whose officers and executives are most referred (Centrality) is commercial bank (73), followed by the Department of Export Promotion (50), Department of Industry Promotion (43), and industrial associations (38). The organization who is most contacted in terms of number of officers is industrial association (10.11), followed International chamber of commerce (9.68), and commercial bank (5.73).

The organization whose officers and executives are most frequently contacted is commercial banks (3.18 times per month), followed by local politician (1.49 times per month), industrial association (1.11 times per month). The organization that is referred to as being closet to the overall respondents, as measured by respondent's perception (Expressiveness1), is industrial association (4.26), followed by local chamber of commerce (3.89), and commercial bank (2.79). The organization that is referred to as being closet to the overall respondents, as measured by the method of contact (Expressiveness2), is ministry (1.93), followed by small Industrial Finance Corporation (1.54), provincial chamber of commerce (1.53) and commercial bank (1.53).

Diagram 5.2 reports the above information in the form of radar graph. The contour maps the listed organizational entities into groups according to the degree of each dimension of social network. In respect of centrality, three groups of organizations are formed: high, medium and low degree of centrality, in other words, the number of persons that are contacted by the firms. The group of high degree of centrality comprises provincial chamber of commerce and industrial association. Commercial bank is the only organization in the medium centrality group. The rest, i.e. department of export promotion, department of industry promotion, Small Industrial Finance Corporation, Board of Investment, international chamber of commerce, Thai embassy, ministry, and local politician, are in the same level of degree of centrality, which is relatively low.

The shapes of the contour line of the other three dimensions of social network, i.e. proximity, expressiveness1, and expressiveness2, are almost identical to that of the degree of centrality. Therefore, grouping of organizations for the other three dimensions is quite similar to the grouping for the degree of centrality.

Table 5.3.8: Summary of Social Network Response (Organization)

	Most Referred[a]	Centrality[b]	Proximity[c]	Expressiveness1[d]	Expressiveness2[e]
1	Commercial Bank (73/ 65.77%)	Industrial Associations (10.11)	Commercial Bank (3.18)	Industrial Associations (4.26)	Ministry (1.93)
2	Department of Export Promotion (DEP) (50/ 45.05%)	Int'l Chamber of Commerce (9.68)	Local politicians (1.49)	Local Chamber of Commerce (3.89)	Small Industrial Finance Corporation (SIFC) (1.54)
3	Department of Industry Promotion (DIP) (43/ 38.74%)	Commercial Bank (5.73)	Industrial Associations (1.11)	Commercial Bank (2.79)	Provincial Chamber of Commerce (1.53) Commercial Bank (1.53)
4	Industrial Associations (38/ 34.23%)	Department of Export Promotion (DEP) (3.67)	Small Industrial Finance Corporation (SIFC) (1.10)	Ministry (2.63)	Industrial Associations (1.46)
5	Board of Investment (BOI) (28/ 25.23%)	Small Industrial Finance Corporation (SIFC) (3.63)	Ministry (1.09)	Local Chamber of Commerce (2.44)	Local politicians (1.38)
6	Embassy (25/ 22.52%)	Department of Industry Promotion (DIP) (3.56)	Local Chamber of Commerce (1.02)	Small Industrial Finance Corporation (SIFC) (2.44)	Board of Investment (BOI) (1.21)
7	Ministry (24/ 21.62%)	Local politicians (3.46)	Board of Investment (BOI) (0.84)	Int'l Chamber of Commerce (1.77)	Department of Industry Promotion (DIP) (1.15)
8	Int'l Chamber of Commerce (23/ 20.72%)	Embassy (3.20)	Department of Export Promotion (DEP) (0.079)	Board of Investment (BOI) (1.75)	Embassy (1.09)
9	Provincial Chamber of Commerce (22/ 19.82%)	Ministry (3.08)	Int'l Chamber of Commerce (0.62)	Department of Industry Promotion (DIP) (1.67)	Business Friends in the Same Industry (1.07)
10	Local Politicians (22/ 19.22%)	Board of Investment (BOI) (2.96)	Embassy (0.49)	Department of Export Promotion (DEP) (1.59)	Department of Export Promotion (DEP) (1.06)
Average	33.36	5.85	1.12	1.66	0.94
Max	73	2.96	3.18	4.26	1.93
Min	19	2.96	0.49	1.59	1.06

a. number in the parenthesis represent the number of respondents who refer to the corresponding organization

b. number in the parenthesis represent the average number of the corresponding organization which are contacted by respondents

c. number in the parenthesis represent the average frequency of contact per month made by the respondents to the corresponding organizations

d. number in the parenthesis represent the average degree of closeness, as measured by Expressinvess1 (perceived closeness), of the relationship between the respondents and the corresponding organizations

e. number in the parenthesis represent the average degree of closeness, as measured by Expressiveness2 (method of contact), of the relationship between the respondents and the corresponding organizations

Industrial associations and provincial chamber of commerce represent the source of information and bargaining power in the industry. These two issues seem to be the critical issues for Thai exporting SMEs in this industry. As most of SMEs encounter various problems stemming from the disadvantage of size, their survival depends very much on how closely they unite to raise a louder voice and to strengthen the bargaining power. Financial matter appears to come in the second place in term of cetrality. Most SMEs are inferior in term of capital stock and capital raising. Therefore, these SMEs have to maintain a close relationship with personnel of commercial bank. Commercial bank, however, is contacted with the greatest frequency, 3.18 times per month, and relatively close relationship, 4.26 of Expressiveness1.

The relationship between SMEs and ministry is interesting to observe. Only 24 out of 111 firms (21.62%) refer to ministry, with a relatively low centrality (3.86 persons), moderate frequency of contact (1.09 times per month), and moderate level of closeness (2.63 of Expressiveness1). However, firms choose the closest method with ministry (1.92 of Expressiveness 2). This means that firms attempt to establish a closer tie to this group of people as they are seen as important to the firms' operation. As the more intimate method of contact usually costs more, it is most likely that firms spend more money in keeping the relationship with this group of people, than with the others. However, they are not quite successful because the closeness of their relationship is still moderate.

In sum, the network of Thai exporting SMEs in the food and agricultural product industry is mainly typical. Customer and supplier are still the most important group of people to which firms have to keep close. These SMEs obtain useful information mostly from business friends in the same industry, who probably are in the same industrial association. Competition in this industry is probably not so violent that firms do not share information with one another. Financial issue is the second most important concern that SMEs hope to be helped by their network. Although it cannot be said that privilege from ministry and politician is third most concerned, the behavior of contact apparently shows that it is critical for SMEs' operation.

Diagram 5.2: Social Network with

organizational entities

of the overall respondents
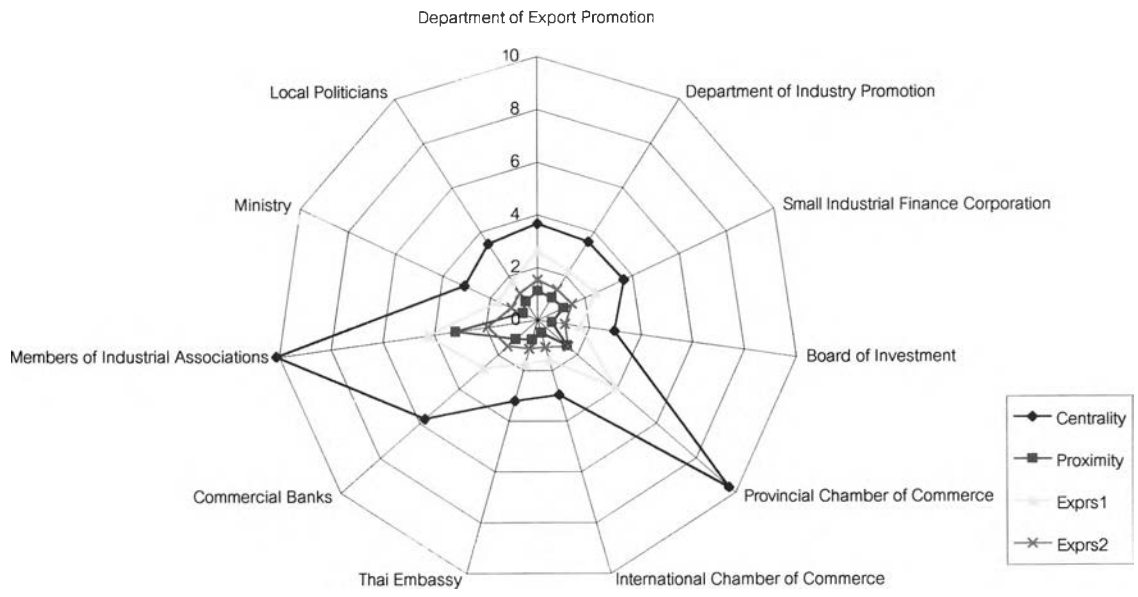
5.3.2.2 Successful Social Network

This part of analysis compares each dimension of social network, i.e. centrality, proximity, expressivenss1, and expressiveness2, of high and low performance respondents. The results show the different form of social network of high and low performance firms. The 111 respondents are divided into two groups, i.e. firms with high and low performance. Each dimension of the social network is then plot against each group of the firms on the radar graph.

Objective performance and individual entities of each social network dimension

In diagrams 5.3 – 5.6, the shapes of the graphs, which represent the network focus of each firm group, is quite similar. High and low performance firms focus their social network, in term of centrality, on provincial chamber of commerce officers, customer, suppliers, members of industrial associations, and business friends in the different industry. However, high performance firms are far greater in the magnitude of centrality. In other words, they know much more of these people than the low performance firms.

In term of contact frequency (proximity), the focus of the two groups of firms is also similar, but greatly different in term of degree. Customer, supplier, lower rank officers of commercial bank, relatives, and kin, are most frequently contacted. Business friends in the same industry and business friends in the different industry are contacted with moderate frequency. Low performance firms make contact to these individual entities with far less frequency than high performance firms.

Focuses of the two groups of the firms in the expressivenss1 and expressiveness2 dimensions are quite different. At some points where the high performance firms highly focus, are relatively small in degree in the low performance firms. For example, the high performance firms keep a very close relationship (expressiveness1) with provincial chamber of commerce executives and officers and lower rank officers of commercial bank, while the low performance firms are distant.

In respect of expressiveness2, the method of contact, high performance firms use a very close method of contact with ministers, member and executives of provincial chamber of commerce, local political leaders, and the director of the Department of Export Promotion. The low performance firms, on the contrary, use very distant method of contact.

Diagram 5.3: Comparing the Degree of Centrality of the Individual Entities Reported as by the High and Low Performance Firms (Objective Performance)
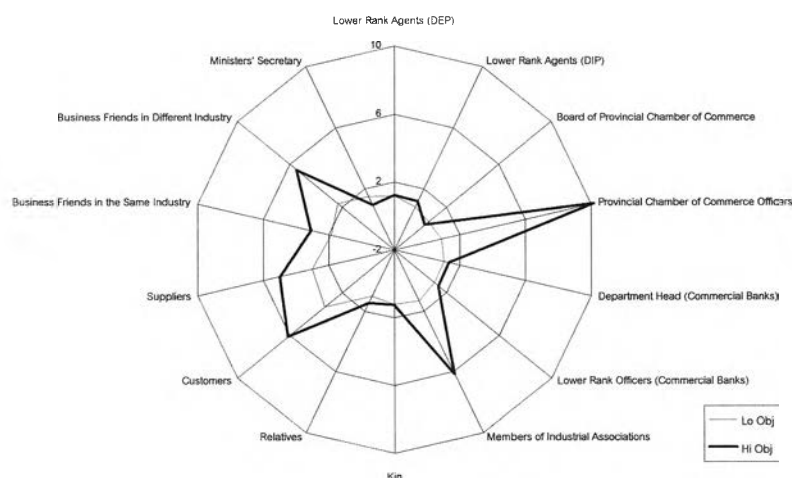

Diagram 5.4: Comparing the Proximity of the connections to the Individual Entities as Reported by the High and Low Performance Respondents (Objective Performance)
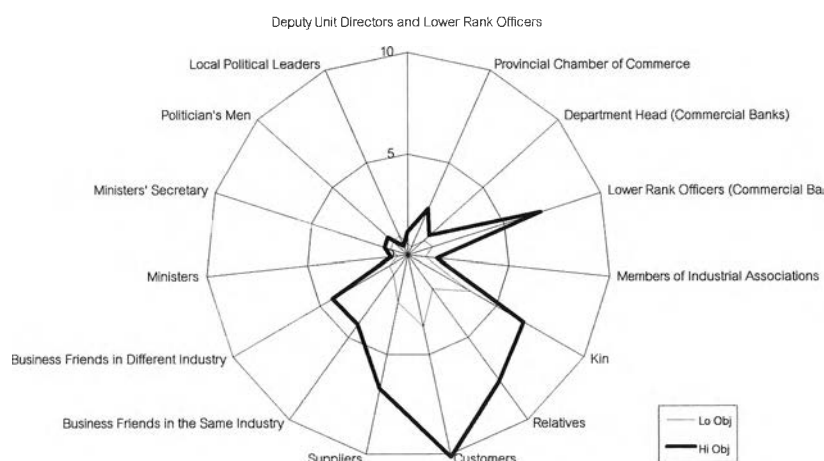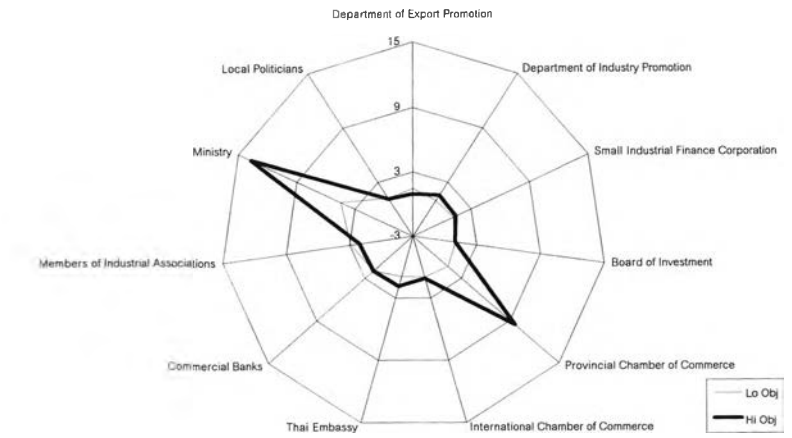

Diagram 5.5: Comparing the Expressiveness1 of the connection to the Individual Entities as Reported by the High and Low Performance Respondents (Objective Performance)
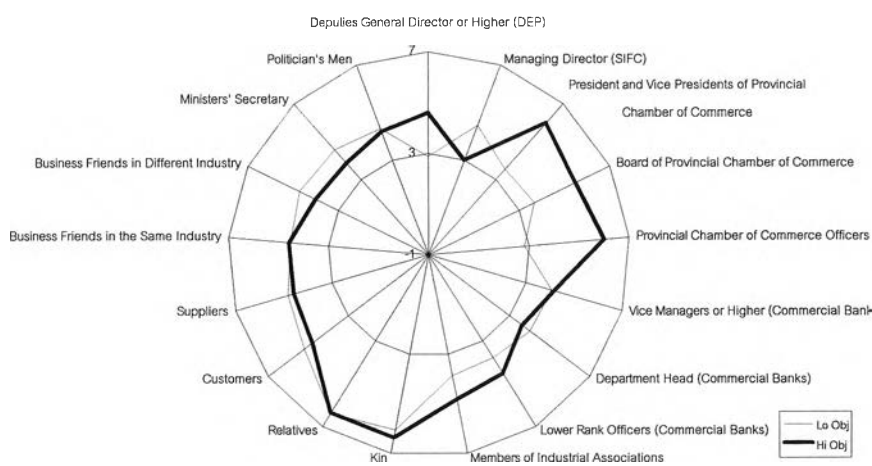
Diagram 5.6: Comparing the Expressiveness2 of the connections to the Individual Entities as Reported by the High and Low Performance Respondents (Objective Performance)
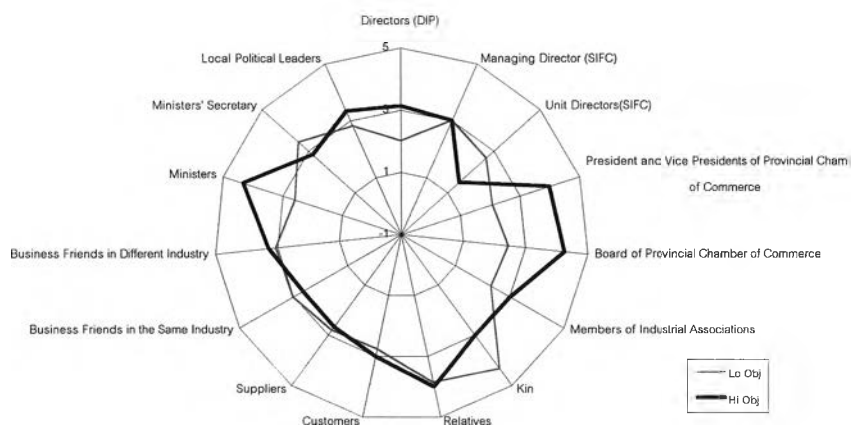
<u>Objective performance and organizational entities of each social network dimension</u>

Findings in diagram 5.7 – 5.10 presents are quite alarming, regarding the network of high performance firms. Ministry is on the major focus of every dimension of social network. This means that high performance firms contact a greater number of persons in ministry, with greater frequency, and a closer means. This implies that one of the keys to success is privilege that obtained from a close contact to politician in the ministry. In addition, it also speaks something about the inefficiency of the authority in the lower tiers of bureaucracy that make these firms come directly to the ministry. Or, perhaps, the government structure is not sufficiently decentralized.

Thai embassy in the export-target countries is also contacted with similar pattern. High performance firms contact a larger number of persons in Thai embassy, but with lesser frequency. They feel more distant to Thai embassy' personnel but use method of contact that is much closer. Therefore, feeling does not matter as much as the approach. Unfortunately, the greater intimacy of the method, the more it costs.

High and low performance firms have a similar pattern of network focus on industrial association and commercial bank. They similarly consider these two organizations as important components of the network. While being a member of industrial associations open opportunities for them to join the bandwagon of negotiation power, and all benefits that will come with it, commercial bank help them in term of finance and investment. Although the focus is similar, the degree of focus is different. High performance firms have a greater degree in every dimension of social network, i.e. centrality, proximity, expressiveness1, and expressiveness2.
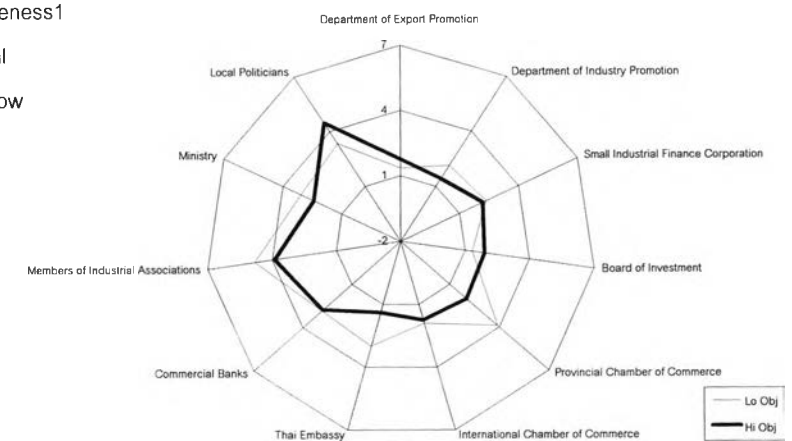
Diagram 5.7: Comparing the Degree of
Centrality of the Organizational Entities as
Reported by the High and Low
Performance Respondents (Objective
Performance)

Diagram 5.8: Comparing the Proximity of
the Organizational Entities as Reported
by the High and Low Performance
Respondents (Objective Performance)
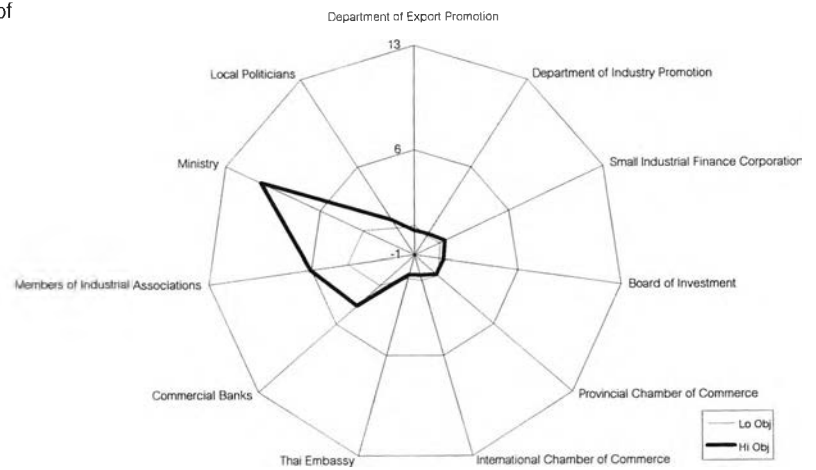
Diagram 5.9: Comparing the Expressiveness1
of the connections to the Organizational
Entities as Reported by the High and Low
Performing Respondents (Objective
Performance)

Diagram 5.10: Comparing the
Expressiveness2 of the connections to the
Organizational Entities as Reported by the
High and Low Performance Respondents
(Objective Performance)
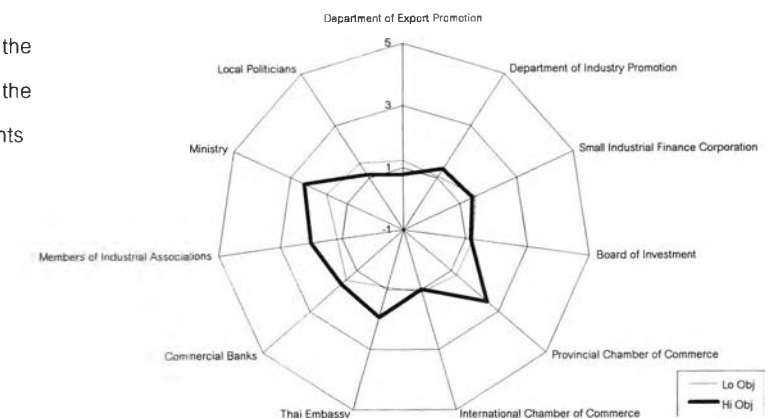
Subjective performance and individual entities of each
social network dimension

When using the subjective indicators to measure the performance, the shapes
of the focus are not much different from the objective indicators. Centrality
focuses are still placed on member of industrial association, board of
provincial chamber of commerce, customer, and supplier, for both high and
low performance firms. Proximity focuses are placed on customer, supplier,
kin, relatives, and lower rank officers of commercial bank. Like in the case of
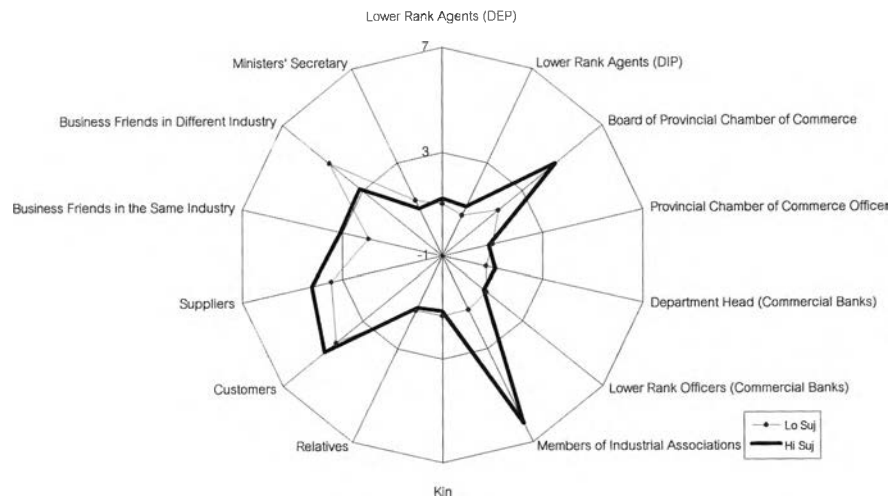objective performance, the low performance firms are much smaller in
magnitude.

However, high and low performance firms are different in centrality focus
and magnitude of business friends in the same industry. High performance
firms contact business friends in the same industry with greater frequency and
establish closer relationship, while low performance firms seem to ignore. In
the industry where competition is not too violent, firms in the same industry
tend to share information and collaborate with one another, rather than
rigorously compete. High performance firms do not seem to establish many
ties to business friends in the different industry. They contact to this group of
business friends with moderate frequency. The level of closeness, however, is
reportedly high.

In term of level of closeness, it is found that high performance firms focus
more on personnel of commercial bank, while low performance firms do not.
This may result in financial difficulties, such as investment expansion, and
finally in low performance.

Regarding the method of contact, minister, kin, and relatives are contacted
with most intimate method by high performance firms. The patterns of focus
are very different especially in regard of minister. While high performance
firms highly focus on using highly intimate method of contact for minister,
the low performance firms do not. As previously mentioned, more intimate
method of contact costs more. Low performance firm may not be affordable
to do so. Although these low performance firms are close to minister's
secretary and politician's men as much as the high performance firms do,
these people do not help much with the performance.

In sum, customer, supplier, members of industrial association, board of
provincial chamber of commerce, business friends both in the same and
different industry, commercial bank personnel, and minister, are important
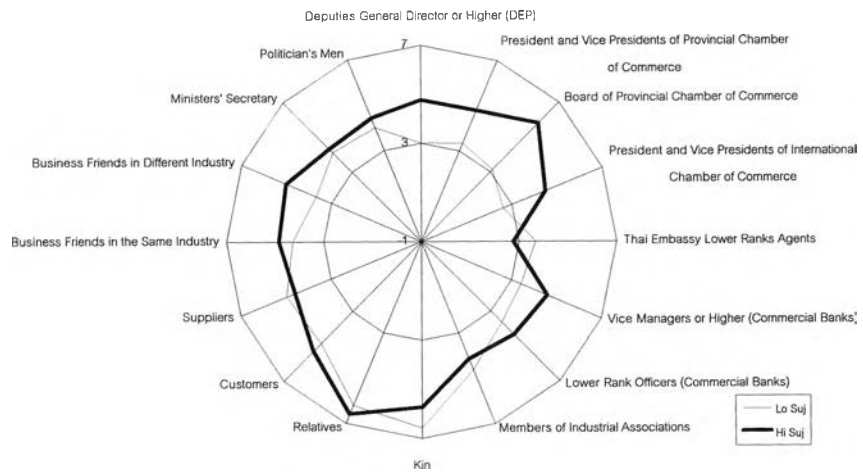figures for subjective performance.

Diagram 5.11: Comparing the
Expressiveness 1 of the Connections to the
Individual Entities as Reported by the High
and Low Performance Respondents

Diagram 5.12: Comparing the Proximity of the
Connections to the Individual Entities as Reported
by the High and Low Performance Respondents
(Subjective Performance)
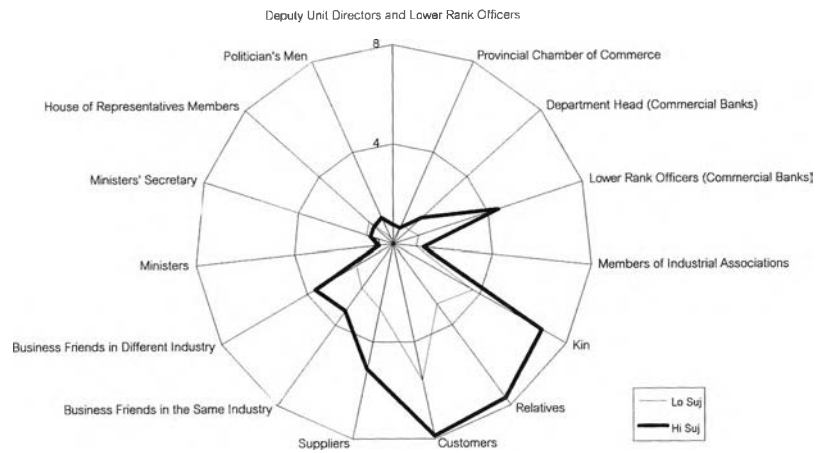
Diagram 5.13: Comparing the
Expressiveness 1 of the Connections to the
Individual Entities as Reported by the High
and Low Performance Respondents
(Subjective Performance)

Diagram 5.14: Comparing the Expressivess2
of the Connections to the Individual Entities as
Reported by the High and Low Performance
Respondents (Subjective Performance)
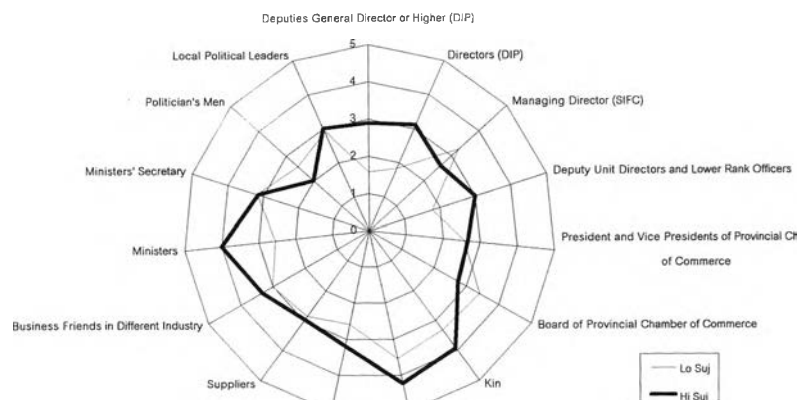
Subjective performance and organizational entities, of each social network dimension

Diagram 5.15 – 5.18 shows the shapes of social network focus of each dimension, when using subjective performance. The shapes of focus are almost identical to those when using objective performance. However, provincial chamber of commerce and international chamber of commerce that exhibit some discrepancies. High performance firms contact much less people in provincial chamber of commerce than low performance firms. Furthermore, international chamber of commerce came into the focus of both high and low performance firms. The latter, however, are less in magnitude. Subjective performance, in this study, reflects the perceived ability to compete and grow. Thus, being in close relationship with international chamber of commerce probably convinces these firms that they are capable to grown and compete in the international market.

Subjective satisfaction performance and individual entities, of each social network dimension

Diagram 5.19 – 5.22 shows the patterns of the network focus on individual entities of the high and low performance firms when using subjective satisfaction performance indicators. The patterns are similar to those when using objective and subjective performance indicators. The pattern of focus of expressiveness2, however, is completely different. Local political leader is contacted with most intimate method. Moderately intimate method is used with minister, provincial chamber of commerce, business friends in the same and different industry, managing directors and unit director of Small Industrial Finance Corporation, kin, and relatives.

Subjective satisfaction performance and organizational entities, of each social network dimension

Diagram 5.23 – 5.26 shows the patterns of the network focus on organizational entities of the high and low performance firms when using subjective satisfaction performance indicators. The patterns are almost identical to those when using objective and subjective performance indicators. The focus is therefore analyzed and interpreted similarly.
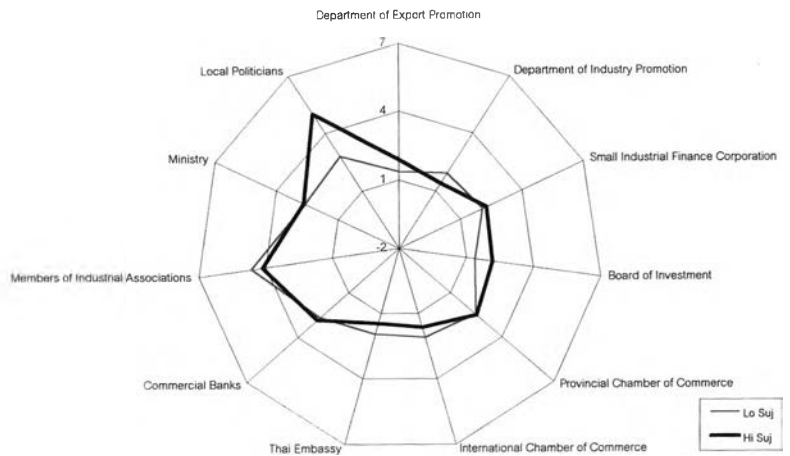
Diagram 5.15: Comparing the Degrees of Expressiveness2 of the Organizational Entities as Reported by the High and Low Performance Respondents (Subjective Performance)
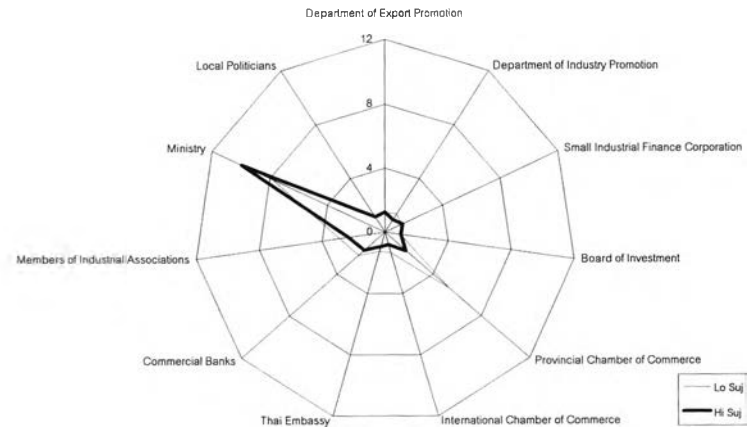
Diagram 5.16: Comparing the Proximity of the Connections to the Organizational Entities as Reported by the Respondents (Subjective Performance)
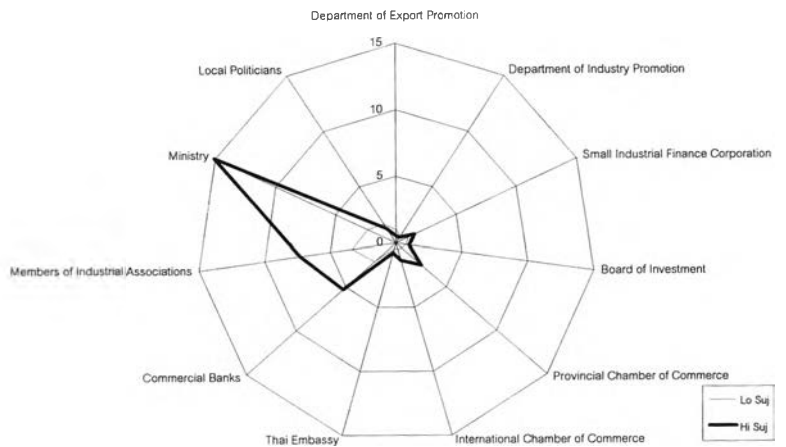
Diagram 5.17: Comparing the Expressiveness 1 of the Connections to the Organizational Entities as Reported by the Respondents (Subjective Performance)

Diagram 5.18: Comparing the Expressiveness2 of the Connections to the Organizational Entities as Reported by the High and Low Performance Respondents (Subjective Performance)
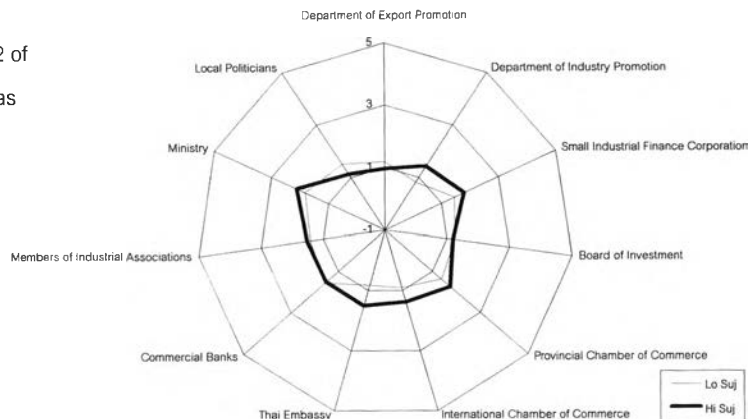
Diagram 5.19: Comparing the Degree of
Centrality of the Individual Entities as Reported
by the High and Low Performance Respondents
(Subjective Satisfaction Performance)

Diagram 5.20: Comparing the Proximity of the
Connections to the Individual Entities as Reported
by the High and Low Performance Respondents
(Subjective Satisfaction Performance)

Diagram 5.21: Comparing the Expressiveness1 of
the Connections to the Individual Entities as
Reported by the High and Low Performance
Respondents (Subjective Satisfaction Performance)

Diagram 5.22: Comparing the Expressiveness2 of
the Connections to the Individual Entities as
Reported by the High and Low Performance
Respondents (Subjective Satisfaction Performance)
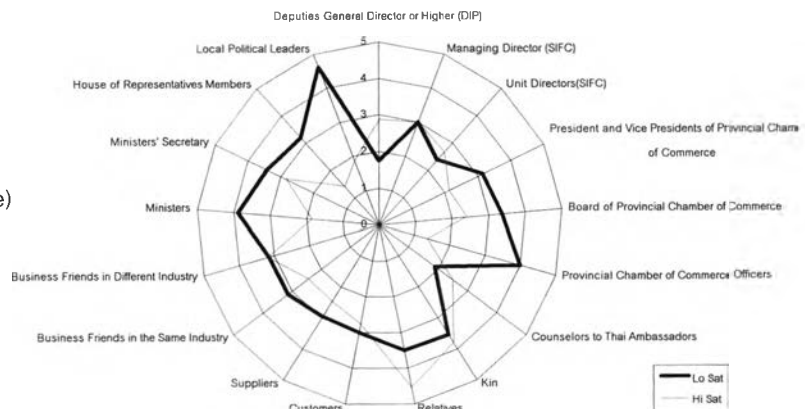
Diagram 5.23: Comparing the Degree of Centrality of the Organizational Entities as Reported by the High and Low Performance Respondents (Subjective Satisfaction Performance)
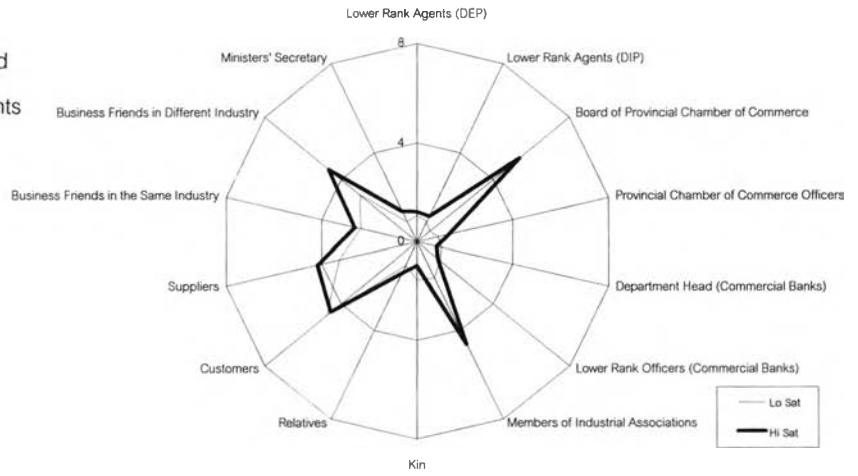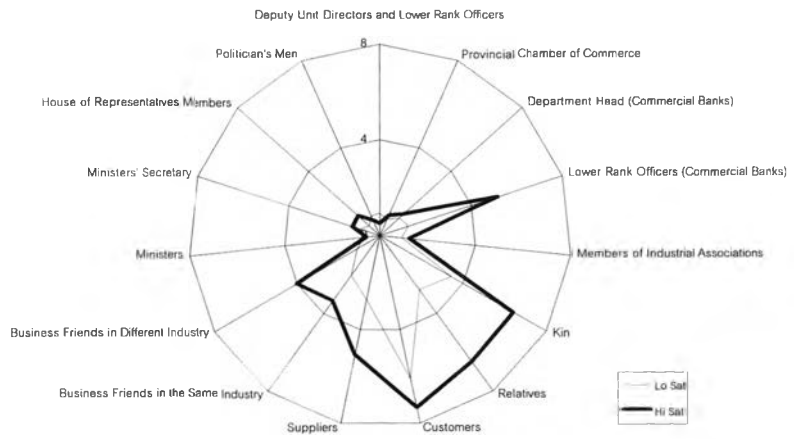
Diagram 5.24: Comparing the Proximity of the Connections to the Organizational Entities as Reported by the High and Low Performance Respondents (Subjective Satisfaction Performance)

Diagram 5.25: Comparing the Expressiveness 1 of the connections to the Organizational Entities as Reported by the High and Low Performance Respondents (Subjective Satisfaction Performance)
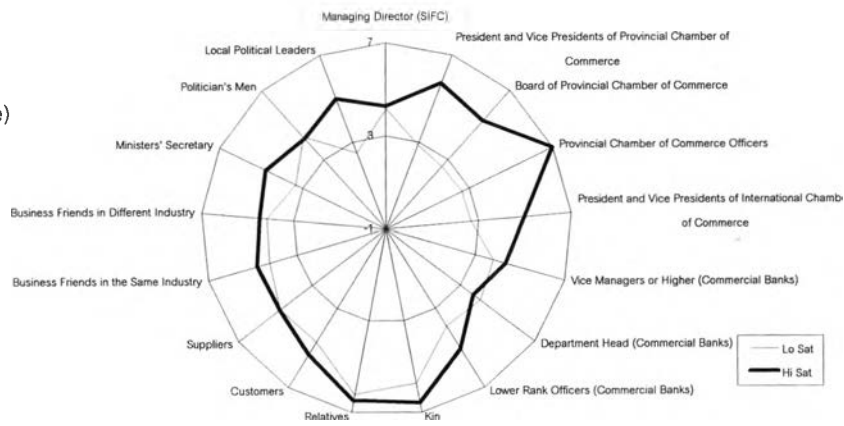
Diagram 5.26: Comparing the Expressiveness2 of the Connections to the Organizational Entities as Reported by the High and Low Performance Respondents (Subjective Satisfaction Performance)

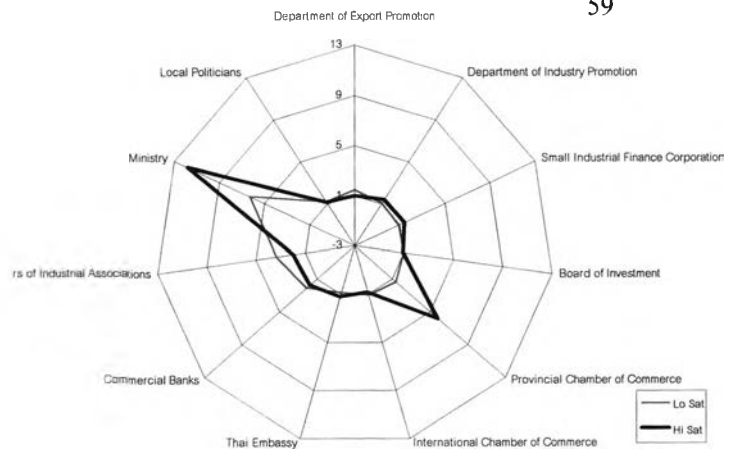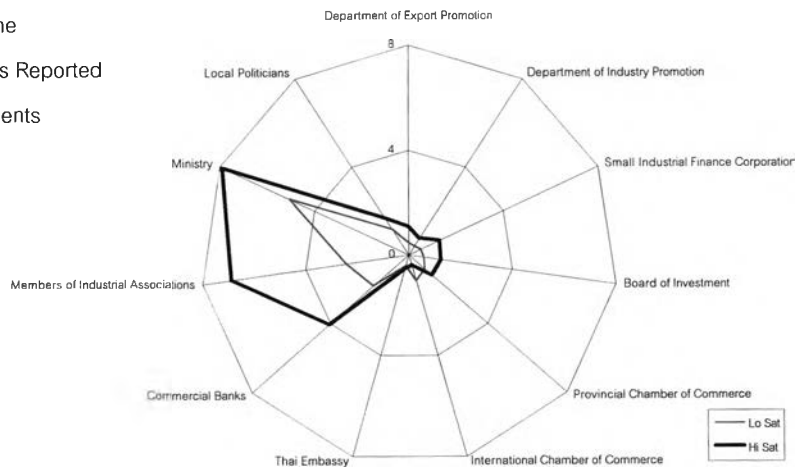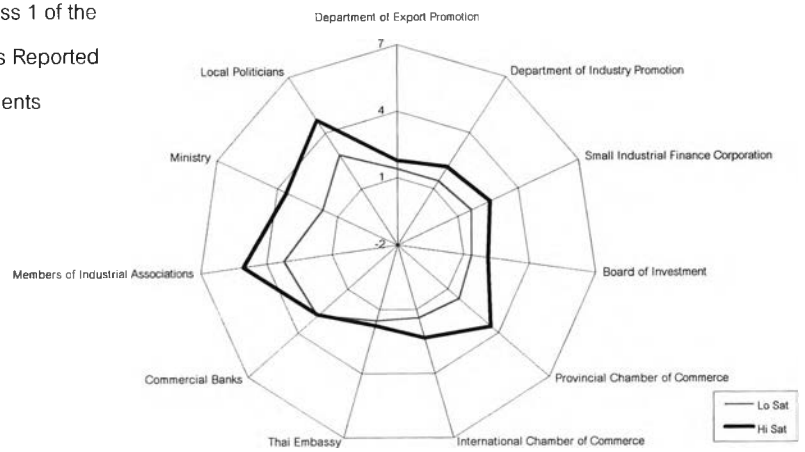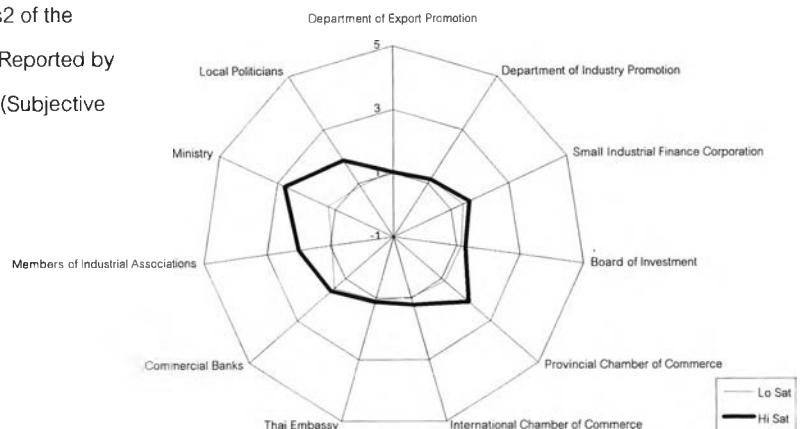## 5.4 Determine Underlying Variables of the Study and Non-normality Remedy

The proposed model comprises 4 independent variables, and 8 dependent variables (3 objective and 5 subjective performance indicators). In order to minimize the complication of model analysis the number of dependent and control variables are reduced by factor analysis technique.

5.4.1 Dependent Variables

The related literature on export performance suggests two sets of performance measures: objective and subjective. As discussed in part 3 of Chapter 2 and later in the construct operationalization of Chapter 4, objective performance is measured by 3 variables, i.e. export sales growth, export profit growth, and export intensity growth. Subjective performance is measured by 5 variables, i.e. satisfaction on export performance (SATEXP1), satisfaction on the firm's position on the international competition (SATPOS), ability to compete in the international market when compared to domestic competitors (DOMCOM), and to foreign competitors (FORCOM), and potential of the firm's export growth (EXPG). All these subjective measures pertain to export success and propensity to export.

Table 5.4.1 shows the factor analysis results of the dependent variables. Maintaining all factors with eigenvalue greater than 1 is observed. The objective performances fall into one factor, which is named 'Objective Performance'. Factor analysis extracts 2 components from the 5 subjective performance and are named 'Subjective Performance' and 'Subjective Satisfaction Performance'. Factors scores of the extracted components will be used in the model analysis instead of the collected data.

Table 5.4.1: Rotated Component Matrix for Export Performance

	FACTOR	
	Subjective Performance	Subjective Satisfaction Performance
SATEXP1	-0.04	0.92
SATPOS	0.59	0.51
DOMCOM	0.87	-0.07
FORCOM	0.74	0.28
Expptl	0.76	-0.02
Eigen Value	2.36	1.04
% of Variance	47.27	20.89
Cummulative % **Of Variace**	47.27	47.27

5.4.2. Independent Variables (Centrality, Proximity, Expressiveness1, and Expressiveness2)

The data transformation, explain in details in Chapter 4, derives four independent variable, i.e. centrality, proximity, expressivenss1, and expressiveness2. Centrality represents the weighted degree of relationship between the respondents and each individual and organizational entity, based on the number of person the respondents contact. Proximity is the weighted score of frequency of contact that the respondents make to each individual and organizational entity. Expressiveness1 is the weighted score of perceived closeness of the respondents to each individual and organizational entity. Expressiveness2 is also the weighted score of closeness, but based upon the method of contact made by the respondents to each individual and organizational entity.

Table 5.4.2 summarizes the underlying control variables, dependent variables, and independent variables used in this study.

Table 5.4.2: Underlying variables used in the study

DEPENDENT VARIABLES
1. OBJECTIVE PERFORMANCE
2. SUBJECTIVE PERFORMANCE
3. SUBJECTIVE SATISFACTION PERFORMANCE
INDEPENDENT VARIABLES
1. CENTRALITY
2. PROXIMITY
3. EXPRESSIVENESS1
4. EXPRESSIVENEES2

5.4.3. Non-normality Remedy

As the statistical techniques used in the hypothesis testing of this study, i.e. Bivariate correlation and multiple regression, require normality of distribution. The data of each variable is therefore plotted on the histogram and P-P normal diagram (exhibited in Appendix E) to explore if the normality assumption is violated. Subjective and Subjective Satisfaction Performance are the two variables whose distribution can be claimed normal. Remedial measures for non-normality are therefore required for the other variables.

Hair, Anderson, Tatham, and Black (1995, p.70) suggests four methods of transformation to achieve linearity, i.e. taking the 2nd power, taking square root, inverse, and taking log. These four methods are applied to each variable. The method that makes the data distribution fall closest to the normal line is then used with the respective variable, and the normality distribution is then claimed. Table 5.4.3 summarized the remedial measures for non-normality undertaken for each variable.

Table 5.4.3: Remedial measures for non-normality and variables

	Untransformed	Log	Inverse	2nd Power	Square Root
SOCIAL NETWORK					
Centrality		√			
Proximity		√			
Expressiveness1					√
Expressiveness2					√
CHARACTERISTICS					
Heterogeneity				√	
Imperfect Imitability				√	
Imperfect Substitutability				√	
Imperfect Mobility					√
PERFORMANCE					
Objective				√	
Subjective	√				
Subjective Satistaction	√				

5.5. Hypothesis Testing: Social Network Characteristics

In this section, Correlation between each dimension of the strategic resource characteristics, i.e. heterogeneity, imperfect imitability, imperfect substitutability, and imperfect, and each dimension of social network, i.e. centrality, proximity, expressiveness1, and expressiveness2, is explored. The significant correlation between all social network dimensions and the 4 characteristics of strategic resource will lead to the conclusion that social network can be categorized as a strategic resource. However, if any of the three social network dimensions fail to demonstrate a significant correlation to any of the 4 characteristics, social network is disqualified as a strategic resource.

The test of the correlation is divided into two steps. First, the correlation between each social network dimension and each strategic resource characteristic, for the overall respondents, is explored. Second, each dimension of social network is divided into two groups: high, and low. The number of the respondents of each group is 56, and 55, respectively. The correlation between each social network dimension and each strategic resource characteristics is then explored. Bivariate correlation is used for both steps, and Pearson correlation coefficient is observed.

Table 5.5.1: Summary of Pearson Correlation Coefficients between each dimension of social network and each characteristic of strategic resource, for the overall respondents.

Social Network Dimension	Heterogeneity	Imperfect Imitability	Imperfect Substitutability	Imperfect Mobility
	Pearson Correlation Coefficients			
Centrality	-0.074	0.028	-0.014	0.050
Proximity	-0.097	-0.057	0.237**	-0.078
Expressiveness1	-0.073	0.074	-0.087	0.064
Expressiveness2	-0.076	0.101	-0.002	0.009

** The relationship is significant at 0.05 level.

Table 5.5.2: Summary of Pearson correlation coefficients between each dimension of social network and each characteristic of strategic resource, after dividing each dimension into high and low groups

Social Network Dimension		Hetero-geneity	Imperfect Imitability	Imperfect Substitutability	Imperfect Mobility
		Pearson Correlation Coefficients			
(H1) Centrality	Hi	-0.131	0.027	0.307**	-0.208
	Lo	0.072	0.192	-0.020	0.155
(H2) Proximity	Hi	-0.273	0.028	0.200	-0.047
	Lo	-0.106	-0.057	0.164	-0.209
(H3) Expressiveness1	Hi	-0.155	-0.052	-0.028	0.253**
	Lo	0.180	0.234	0.005	0.375**
(H4) Expressiveness2	Hi	-0.112	-0.063	0.082	-0.096
	Lo	-0.024	0.116	-0.234	0.115

** The relationship is significant at 0.05 level.

Table 5.5.1 and 5.5.2 summarize the correlation coefficients between each social network dimension and each strategic resource characteristic. For the overall respondents, only proximity shows a significant positive correlation with imperfect substitutability, at the 0.05 level. After the grouping, however, high centrality group shows a significant correlation with imperfect substitutability. Whereas both high expressiveness1 and low expressiveness1 shows a positive significant correlation with imperfect mobility.

It should be reminded that the centrality, proximity, imperfect substitutability, and imperfect mobility are transformed from the original data to achieve normality distribution in order to meet the fundamental assumption of the correlational analysis. Centrality and proximity are transformed by taking log, expressiveness1 by taking square root. The imperfect substitutability characteristic is transformed by taking a second power and imperfect mobility by taking square root. The interpretation must, therefore, be in the original form.

In the case of centrality and proximity having the characteristic of imperfect substitutability, the centrality and proximity positively correlate to imperfect substitutability in the logarithmic and second power form. In the case of expressiveness1 (taking square root) and imperfect mobility (taking square root), expressiveness1 positively correlate to imperfect mobility in the form of square root.

It should be noted that the imperfect substitutability characteristic of proximity does not depend on the level of proximity intensity. The overall correlation between imperfect substitutability and proximity is significant while the correlation after the grouping is not. On the contrary, level of intensity of centrality and expressiveness1 does make different the characteristics of imperfect substitutability and imperfect mobility, respectively. In respect of expressivness1, the correlation coefficient of the high group is higher than that of the low group. This means that expressiveness1 (perceived closeness) associates to the imperfect mobility characteristic more highly in the low group than in the high group.

As prescribed by the resource-based theory, a resource can be categorized as a strategic resource of the firm only when that resource possesses all of the four necessary characteristics, i.e. heterogeneous, imperfect imitability, imperfect substitutability, and imperfect mobility. According to the above results, social network is imperfectly substitutable and imperfectly mobile, but not heterogeneous, and not imperfectly imitated. This study, therefore, fails to confirm social network as a strategic resource of the firm.

Table 5.5.3: Hypothesis Testing for the Social Network Characteristics

Hypothesis	Results of the Hypothesis Testing
H1: Social Network and Heterogeneity	
Centrality	Not Supported
Proximity	Not Supported
Expressiveness1	Not Supported
Expressiveness2	Not Supported
H2: Social Network and Imperfect Imitability	
Centrality	Not Supported
Proximity	Not Supported
Expressiveness1	Not Supported
Expressiveness2	Not Supported
H3: Social Network and Imperfect Substitutability	
Centrality	Supported
Proximity	Supported
Expressiveness1	Not Supported
Expressiveness2	Not Supported
H4: Social Network and Imperfect Mobility	
Centrality	Not Supported
Proximity	Not Supported
Expressiveness1	Supported
Expressiveness2	Not Supported

5.6. Hypotheses Testing: Social Network and Export Performance

As proposed in Chapter 4, analysis of the model and hypotheses testing will be conducted through multiple regression and correlational analysis. While multiple regression gives a broad picture of the effect of the proposed interaction effect, correaltional analysis identifies the true moderator of the relationship between centrality and export performance.

Table 5.6.1 exhibits the regression results when all of the proposed independent variables are regressed against export performance, using stepwise method of variable selection. The only variable that enters the model is the interaction term between centrality and expressiveness1 (perceived closeness), in the case of objective export performance. The relationship is significant at 0.01 level and is in a positive direction. No variable enters the model when subjective and subjective satisfaction export performances are predicted.

At this point, the study is able to conclude that the interaction between expressiveness1 and centrality influence the export performance in a positive direction. Centrality alone has no impact on export performance. In addition, interaction effects between (1) proximity and centrality, and (2) expressiveness2 (method of contact), have no impact on export performance either.

Table 5.6.1: Summary of the regression results, when all independent variables are regressed against export performance

Performance		Beta	t	Sig.	R^2	F	P
Objective	*Entered Variable*						
(H7a)	Cent x Exprs1	0.596	2.85	0.005**	0.355	8.15	0.005
	Excluded Variables						
(H5)	Cent	0.08	0.70	0.49			
	Prox	-0.04	-0.40	0.69			
	Exp1	0.12	0.27	0.79			
	Exp2	-0.07	-0.47	0.64			
(H6)	Cent x Prox	0.00	0.00	1.00			
(H7b)	Cent x Exprs2	-0.06	-0.37	0.71			
Subjective	*no variable entered*						
Satisfaction	*no variable entered*						

** The relationship is significant at 0.01 level

It is interesting to note that running the regression again, by including each variable relevant to each respective hypothesis, gives a clearer picture of the impact of each variable. Table 5.6.2 shows the regression results when centrality alone is regressed against export performance, and, as stated in hypothesis 5, with no interaction effect. Centrality shows a significant relationship with objective performance at 0.05 level.

Tables 5.6.3 - 5.6.5 shows the regression results for the tests of hypothesis 6, 7a, and 7b, respectively. Only variables that are relevant to each hypothesis are tested. For example, centrality (cent), proximity (prox), interaction between centrality and

proximity (cent x prox), and export performance (obj, sbj, or sat, as the case would be), will be tested using regression, for hypothesis6.

Table 5.6.2: The regression results when Centrality is regressed against export performance

Performance		Beta	t	Sig.	R^2	F	P
Objective							
(H5)	Cent	0.572	0.2334	0.021*	0.328	5.446	0.021
Subjective	no variable entered						
Satisfaction	no variable entered						

* The relationship is significant at 0.05 level

Table 5.6.3: Summary of the regression results, when centrality, proximity and the interaction between centrality and proximity, are regressed against export performance

Performance		Beta	t	Sig.	R^2	F	P
Objective	Entered Variable						
	Cent	0.572	2.334	0.021*	0.328	5.446	0.021
	Excluded Variables						
	Proximity	0.014	0.132	0.896			
(H6)	Cent x Prox	-0.040	-0.198	0.844			
Subjective	no variable entered						
Satisfaction	no variable entered						

* The relationship is significant at 0.05 level

Table 5.6.4: Summary of the regression results, when centrality, expressiveness1 and the interation between centrality and expressiveness1, are regressed against export performance

Performance		Beta	t	Sig.	R^2	F	P
Objective	Entered Variable						
(H7a)	Cent x Exprs1	0.596	2.854	0.005**	0.355	8.147	0.005
	Excluded Variables						
	Cent	0.084	0.699	0.486			
	Exprs1	0.124	0.274	0.785			
Subjective	no variable entered						
Satisfaction	no variable entered						

** The relationship is significant at 0.01 level

Table 5.6.5: Summary of the regression results, when centrality, expressiveness2, and the interation between centrality and expressiveness2, are regressed against export performance

Performance		Beta	t	Sig.	R^2	F	P
Objective	Entered Variable						
	Cent	0.572	2.334	0.021*	0.328	5.446	0.021
	Excluded Variables						
	Exprs2	0.087	0.734	0.465			
(H7b)	Cent x Exprs2	0.063	0.435	0.665			
Subjective	no variable entered						
Satisfaction	no variable entered						

** The relationship is significant at 0.01 level

Interaction effect between (1) proximity and centrality, and (2) expressiveness2 and centrality, fail to demonstrate a significant relationship with export performance. Hypothesis 6 and 7b are hereby rejected.

In the tests of hypothesis 6 and 7b, however, it is interesting to see that centrality are included into the model, showing a significant relationship with export performance. Nevertheless, this does not happen in the test of hypothesis 7a, which explores the interaction effect between centrality and expressiveness1. The regression result for hypothesis 7a shows that interaction effect between centrality and expressiveness1 significantly influences export performance in a positive direction. In this case, centrality is excluded from the model.

The above regression result shows the intriguing behaviors of the variables in this study. Centrality positively influences export performance when it stands alone, or when it functions with proximity and expressiveness2. Proximity and expressivness2, however, fails to show neither direct effect nor interaction effect on export performance. When centrality functions with expressiveness1, the interaction effect subdues the effect of centrality. This means that centrality alone in the absence of interaction effect between centrality and expressiveness1 can positively influence export performance. However, the prediction of export performance is better when centrality interacts with expressiveness1.

It must be reminded again that the variables used in the regression analysis are transformed from the original data to achieve the normality as required by the assumption of regression analysis. Centrality is transformed by taking log, interaction effect between centrality and expressiveness1 (centrality x expressiveness1) by square root, and objective performance by taking second power. The original relationship, therefore, is:

$$(\text{Objective Performance})^2 = a + b\,(\text{Log Centrality}) \qquad \text{for H5}$$
$$(\text{Objective Performance})^2 = a + b\,(\text{Log Centrality} \times \text{Expressivness1}^{1/2}) \qquad \text{for H7a}$$

Therefore original relationship between dependent and independent variables of these hypotheses is not in the linear form. Instead, the relationship is in the logarithmic and second power form in the case of H5. In the case of H7a the relationship in the

logarithmic, square root, and second power form. The collected data of these three variables are positive numbers. In both cases, the positive relationship means that when the independent variable increases, the dependent variable also increases. In hypothesis 5, when centrality increases in the form of logarithm, objective performance increases in the form of second power. In hypothesis 7a, when centrality increases in the form of logarithm and expressiveness increases in the form of square root, objective performance increases in the second power form.

The residual plot of the models in hypothesis 5 and hypothesis 7a are reported in Appendix F. The residuals fall in a horizontal band with no apparent systematic features.

To identify expressiveness1 as the true moderator of the relationship between centrality and export performance, this study uses Bivariate correlation and the exploration of significant differences of the correlation coefficients across each level of expressiveness1, i.e. high, low and medium.

Table 5.6.6 shows that the correlation between centrality and objective performance is significant, at 0.01 level, in the high level and low level of expressiveness1. The correlation coefficients are 0.358, -0.159, and 0.343, for high, medium and low level, respectively. Calculation of the χ^2 to compare the difference of the three correlation coefficients finds that the correlation coefficients are different at 0.05 level (the calculated χ^2 is 6.29412167).

χ^2 is calculated again for the multiple comparison of the correlation coefficients (high-low, high-medium, and medium-low). The calculated χ^2 of multiple comparison shown in table 5.6.7 indicates that the correlation coefficients of (1) the group of the low level and medium level of expressiveness1 are significantly different, and of (2) the group of the medium level and high level of expressiveness1 are significantly different. It is hereby concluded that expressivness1 is the moderator of the relationship between centrality and export performance.

Summary of results of the test of hypothesis 5, 6, 7a, and 7b, are shown in table 5.6.9.

Table 5.6.6: Pearson correlation coefficient between Centrality and Objective Performance of each Expressiveness1 group

Pearson Correlation	Expressivness1 Group		
	Hi (N = 38)	Md (N = 37)	Lo (N = 36)
CENT	0.358**	-0.159	0.343**
(Sig.)	(0.007)	(0.346)	(0.010)

**The correlation is significant at 0.01 level

Table 5.6.7: Calculated χ^2 of multiple comparison, after conversing Pearson correlation coefficient, of Centrality and Objective Performance, to Fisher's Z, when Expressiveness1 is the moderator

Moderator - Expressiveness1	χ^2 (cal) [Centrality / Objective Performance]		
	Low-Medium	Low-High	Medium-High
	4.493426**	0.004909	4.936344**

** the correlation coefficients of the pair are different at 0.05 level ($\chi^2_{(2-1), 0.05}$ = 3.841)

Table 5.6.9: Summary of the test result for hypothesis 5, 6, 7a, 7b

	Hypothesis	Results of the hypothesis testing
H5	Social networking with central individuals and/or organizations has a positive relationship with export performance	Supported
H6	Proximity interacts with centrality in a positive relationship with export performance	Not Supported
H7a	Expressiveness(1) interacts with centrality in a positive relationship with export performance	Supported
H7b	Expressiveness(2) interacts with centrality in a positive relationship with export performance	Not Supported

The results of the hypothesis testing will be discussed, and the implication will be drawn in the following chapter.