

CHAPTER FOUR

RESULTS

The previous chapter explains the subjects, materials, and relevant procedure to find out and analyze the data. This chapter describes the result of the study collected from 173 respondents' questionnaires, input to and processed by SPSS v.12. The findings derive at conclusions associated with the objectives of the study. The chapter begins with descriptive statistics of demographics and spending behavior of the respondents. Statistical analysis is then conducted to test the hypotheses of the study in applying SE to the respondents' way of life towards demographics such as gender, age, marital status, salary, educational background, and awareness of SE.

All the data collected from the respondents was keyed in to SPSS to start four parts of data analysis as follows:

- 4.1 Demographics of Respondents
- 4.2 Spending Behavior of Respondents Consistent with SE
- 4.3 Respondents' Problems of Applying SE to Their Ways of Life
- 4.4 Testing Hypotheses

4.1 DEMOGRAPHICS OF RESPONDENTS

The demographic information of the respondents is described in the form of frequency distribution in Table 1–6.

4.1.1 Age

According to frequency distribution of respondents' age in Table 4, the majority of the respondents' ages, representing 52.6%, ranges from 20-29 whereas only 1.7% of the respondents are over the age of 50. The respondents aged between 30-39 account for 38.7% and 6.9% of the respondents are between 40-49 years of age.

Table 4. Frequency Distribution of Respondents' Age

	Frequency	Percent
20-29	91	52.6
30-39	67	38.7
40-49	12	6.9
50 and above	3	1.7
Total	173	100.0

4.1.2 Gender

From Table 5, while the majority of the respondents in this study are male, representing 57.2%, females account for 42.8%.

Table 5. Frequency Distribution of Respondents' Gender

	Frequency	Percent
Male	99	57.2
Female	74	42.8
Total	173	100.0

4.1.3 Marital Status

Table 6 reveals that 76.9% of the respondents are single and less than half of the respondents, 23.1%, are married.

Table 6. Frequency Distribution of Respondents' Marital Status

	Frequency	Percent
Single	133	76.9
Married	40	23.1
Total	173	100.0

4.1.4 Level of Education

From Table 7, the majority of the respondents, 60.7%, earned a bachelor's degree whereas the rest of the respondents, 39.3%, completed a master's degree.

Table 7. Frequency Distribution of Respondents' Educational Level

	Frequency	Percent
Bachelor's degree	105	60.7
Master's degree	68	39.3
Total	173	100.0

4.1.5 Level of Salary

Table 8 shows that the respondents who earn 12,000-25,000 baht per month accounted for 34.2% whereas the minority of the respondents, 1.9%, gross 75,001-85,000 baht per month. Then, 25.3% of the respondents are paid 25,001-35,000 baht per month, 16.5% of them are paid 35,001-45,000 baht per month, and 8.9% of them get paid 45,001-55,000 baht per month. Also, the respondents who gross over 85,001 baht per month represent 5.7%, those who make 55,001-65,000 baht per month represent 5.1%, and those who earn 55,001-65,000 baht per month constitute 2.5%.

Table 8. Frequency Distribution of Respondents' Salary

	Frequency	Percent
12,000 – 25,000	54	34.2
25,001 – 35,000	40	25.3
35,001 – 45,000	26	16.5
45,001 – 55,000	14	8.9
55,001 – 65,000	8	5.1
65,001 – 75,000	4	2.5

(table continues)

Table 8. (continued)

	Frequency	Percent
75,001 – 85,000	3	1.9
85,001 and above	9	5.7
Total	158	100.0

4.1.6 Awareness of SE

From Table 9, whilst the bulk of the respondents representing 61.3% are not aware of a conceptual framework of SE, 39.9% of the respondents know it.

Table 9. Frequency Distribution of Respondents' SE Awareness

	Frequency	Percent
Yes	67	39.9
No	105	61.3
Total	172	100.0

4.2 SPENDING BEHAVIOUR OF RESPONDENTS CONSISTENT WITH SE

This section reveals the spending behaviour of the respondents in the form of descriptive statistics, broken down into four areas:

4.2.1 Money Spending on Necessities of Life

Table 10. Degree of SE Used in Spending Money on Necessities of Life

Item	Level of SE Applied					Total	$\bar{x}$	SD	Degree of SE Applied
	Always	Often	Somewhat	Seldom	Never				
1	79 (45.9%)	55 (32%)	31 (18%)	5 (2.9%)	2 (1.2%)	172 (100%)	4.19	0.911	Often applied
2	86 (49.7%)	38 (22%)	33 (19.1%)	12 (6.9%)	4 (2.3%)	173 (100%)	4.1	1.082	Often applied

(table continues)

Table 10. (continued)

Item	Level of SE Applied					Total	$\bar{x}$	SD	Degree of SE Applied
	Always	Often	Somewhat	Seldom	Never				
3	1 (0.6%)	2 (1.2%)	11 (6.4%)	31 (17.9%)	128 (74%)	173 (100%)	4.64	0.707	Always applied
4	7 (4%)	12 (6.9%)	22 (12.7%)	15 (8.7%)	117 (67.6%)	173 (100%)	4.29	1.17	Always applied
5	117 (68%)	13 (7.6%)	6 (3.5%)	12 (7%)	24 (14%)	172 (100%)	4.09	1.502	Often applied
6	2 (1.2%)	7 (4%)	29 (16.8%)	92 (53.2%)	43 (24.9%)	173 (100%)	3.97	0.828	Often applied
7	6 (3.5%)	26 (15%)	65 (37.6%)	61 (35.3%)	15 (8.7%)	173 (100%)	3.31	0.949	Somewhat applied
8	2 (1.2%)	12 (6.9%)	56 (32.4%)	66 (38.2%)	37 (21.4%)	173 (100%)	3.72	0.919	Often applied
9	19 (11%)	21 (12.1%)	35 (20.2%)	51 (29.5%)	47 (27.2%)	173 (100%)	3.50	1.306	Often applied
10	60 (34.7%)	52 (30.1%)	32 (18.5%)	20 (11.6%)	9 (5.2%)	173 (100%)	3.77	1.192	Often applied
11	47 (27.2%)	51 (29.5%)	36 (20.8%)	23 (13.3%)	16 (9.2%)	173 (100%)	3.52	1.274	Often applied
12	6 (3.5%)	17 (9.8%)	48 (27.7%)	51 (29.5%)	51 (29.5%)	173 (100%)	3.72	1.097	Often applied
13	84 (48.6%)	39 (22.5%)	22 (12.7%)	10 (5.8%)	18 (10.4%)	173 (100%)	3.93	1.336	Often applied
14	39 (22.7%)	83 (48.3%)	36 (20.9%)	13 (7.6%)	1 (0.6%)	172 (100%)	3.85	0.879	Often applied
15	56 (32.4%)	69 (39.9%)	37 (21.4%)	6 (3.5%)	5 (2.9%)	173 (100%)	3.95	0.969	Often applied
16	25 (14.5%)	18 (10.4%)	34 (19.7%)	53 (30.6%)	43 (24.9%)	173 (100%)	2.59	1.351	Seldom applied
17	70 (40.7%)	46 (26.7%)	34 (19.8%)	14 (8.1%)	8 (4.7%)	172 (100%)	3.91	1.161	Often applied
18	4 (2.3%)	19 (11%)	53 (30.6%)	70 (40.5%)	27 (15.6%)	173 (100%)	3.56	0.960	Often applied

(table continues)

Table 10. (continued)

Item	Level of SE Applied					Total	$\bar{x}$	SD	Degree of SE Applied
	Always	Often	Somewhat	Seldom	Never				
19	5 (2.9%)	22 (12.7%)	59 (34.1%)	47 (27.2%)	40 (23.1%)	173 (100%)	3.55	1.070	Often applied
20	28 (16.2%)	73 (42.2%)	47 (27.2%)	22 (12.7%)	3 (1.7%)	173 (100%)	2.42	0.965	Seldom applied
21	7 (4.1%)	17 (9.9%)	20 (11.7%)	24 (14%)	103 (60.2%)	171 (100%)	4.16	1.211	Often applied
22	5 (2.9%)	27 (15.6%)	58 (33.5%)	70 (40.5%)	13 (7.5%)	173 (100%)	3.34	0.930	Somewhat applied
23	19 (11%)	29 (16.8%)	42 (24.3%)	43 (24.9%)	40 (23.1%)	173 (100%)	3.32	1.298	Somewhat applied
24	45 (26.2%)	62 (36%)	40 (23.3%)	20 (11.6%)	5 (2.9%)	172 (100%)	3.71	1.069	Often applied
25	13 (7.5%)	37 (21.4%)	41 (23.7%)	48 (27.7%)	34 (19.7%)	173 (100%)	3.31	1.222	Somewhat applied
26	36 (21.3%)	73 (43.2%)	37 (21.9%)	19 (11.2%)	4 (2.4%)	169 (100%)	3.70	1.005	Often applied
27	3 (1.7%)	14 (8.1%)	26 (15.1%)	52 (30.2%)	77 (44.8%)	172 (100%)	4.08	1.040	Often applied
Total							3.70	0.37	Often applied

Table 10 shows that SE often applied to the respondents' spending money on necessities of life such as food, clothes, transportation, health, and recreational activities, averaging 3.70. According to Item #3, which holds the highest degree of SE utilised in this area (4.64), the respondents who always practice SE suppress the desire for something wasteful even though they really want it. However, given that Item #20 has the lowest degree of SE utilised in this area (2.42), the respondents seldom apply SE to their work. As a result, they often feel stressed and have headaches and backaches when working with their computers continuously all day long.

4.2.2 Materials Utilisation and Energy Consumption in a Workplace

Table 11. Degree of SE Used in Utilising Materials and Consuming Energy in a Workplace

	Level of SE Applied					Total	$\bar{x}$	SD	Degree of SE Applied
	Always	Often	Somewhat	Seldom	Never				
1	21 (12.1%)	38 (22%)	42 (24.3%)	52 (30.1%)	20 (11.6%)	173 (100%)	3.07	1.213	Somewhat applied
2	62 (35.8%)	55 (31.8%)	31 (17.9%)	16 (9.2%)	9 (5.2%)	173 (100%)	3.84	1.165	Often applied
3	38 (22%)	39 (22.5%)	44 (25.4%)	23 (13.3%)	29 (16.8%)	173 (100%)	3.20	1.371	Somewhat applied
4	1 (0.6%)	4 (2.3%)	28 (16.3%)	44 (25.6%)	95 (55.2%)	172 (100%)	4.33	0.871	Always applied
5	44 (25.4%)	48 (27.7%)	40 (23.1%)	22 (12.7%)	19 (11%)	173 (100%)	3.44	1.295	Often applied
6	5 (2.9%)	6 (3.5%)	20 (11.6%)	26 (15%)	116 (67.1%)	173 (100%)	4.40	1.016	Always applied
7	16 (9.2%)	22 (12.7%)	39 (22.5%)	43 (24.9%)	53 (30.6%)	173 (100%)	2.45	1.296	Seldom applied
8	76 (46.6%)	24 (14.7%)	14 (8.6%)	15 (9.2%)	34 (20.9%)	163 (100%)	3.57	1.621	Often applied
9	87 (50.3%)	64 (37%)	19 (11%)	3 (1.7%)	0 (0%)	173 (100%)	4.36	0.746	Always applied
10	85 (49.1%)	62 (35.8%)	23 (13.3%)	3 (1.7%)	0 (0%)	173 (100%)	4.32	0.770	Always applied
11	0 (0%)	5 (2.9%)	12 (7%)	54 (31.4%)	101 (58.7%)	172 (100%)	4.46	0.752	Always applied
12	19 (11%)	39 (22.5%)	45 (26%)	33 (19.1%)	37 (21.4%)	173 (100%)	3.17	1.300	Somewhat applied
13	65 (37.6%)	61 (35.3%)	36 (20.8%)	6 (3.5%)	5 (2.9%)	173 (100%)	4.01	0.994	Often applied
Total							3.72	0.48	Often applied

From Table 11, SE was often put to use when the respondents utilise materials and consume energy at the workplace, having a score of 3.72. Receiving the highest score (4.46) in this area, Item #11 showed that the respondents consistent with

SE always continue using office items like stationery until they run out. Nonetheless, getting the lowest score (2.45), Item #7 points out that the respondents seldom help remove expired items from a central refrigerator even though they could cause it to work too hard and break down sooner.

4.2.3 Materials Utilisation and Energy Consumption at Home

Table 12. Degree of SE Used in Utilising Materials and Consuming Energy in at Home

	Level of SE Applied					Total	$\bar{x}$	SD	Degree of SE Applied
	Always	Often	Somewhat	Seldom	Never				
1	12 (6.9%)	19 (11%)	41 (23.7%)	46 (26.6%)	55 (31.8%)	173 (100%)	3.65	1.228	Often applied
2	104 (60.1%)	40 (23.1%)	15 (8.7%)	10 (5.8%)	4 (2.3%)	173 (100%)	4.33	1.012	Always applied
3	66 (38.4%)	60 (34.9%)	29 (16.9%)	9 (5.2%)	8 (4.7%)	172 (100%)	3.97	1.089	Often applied
4	81 (46.8%)	51 (29.5%)	27 (15.6%)	12 (6.9%)	2 (1.2%)	173 (100%)	4.14	0.996	Often applied
5	81 (47.1%)	58 (33.7%)	27 (15.7%)	5 (2.9%)	1 (0.6%)	172 (100%)	4.24	0.863	Always applied
6	7 (4%)	8 (4.6%)	31 (17.9%)	30 (17.3%)	97 (56.1%)	173 (100%)	4.17	1.126	Often applied
7	6 (3.5%)	15 (8.7%)	41 (23.8%)	61 (35.5%)	49 (28.5%)	172 (100%)	3.77	1.067	Often applied
8	0 (0%)	11 (6.4%)	55 (31.8%)	68 (39.3%)	39 (22.5%)	173 (100%)	3.78	0.868	Often applied
9	51 (29.8%)	50 (29.2%)	30 (17.5%)	22 (12.9%)	18 (10.5%)	171 (100%)	3.55	1.320	Often applied
10	19 (11.1%)	40 (23.4%)	40 (23.4%)	42 (24.6%)	30 (17.5%)	171 (100%)	2.86	1.271	Somewhat applied
11	8 (4.6%)	15 (8.7%)	32 (18.5%)	35 (20.2%)	83 (48%)	173 (100%)	3.98	1.198	Often applied
12	58 (33.7%)	70 (40.7%)	36 (20.9%)	7 (4%)	1 (0.6%)	172 (100%)	4.03	0.875	Often applied

(table continues)

Table 12. (continued)

	Level of SE Applied					Total	$\bar{x}$	SD	Degree of SE Applied
	Always	Often	Somewhat	Seldom	Never				
13	65 (37.6%)	68 (39.3%)	31 (17.9%)	8 (4.6%)	1 (0.6%)	173 (100%)	4.09	0.888	Often applied
14	62 (35.8%)	67 (38.7%)	27 (15.6%)	12 (6.9%)	5 (2.9%)	173 (100%)	3.98	1.028	Often applied
Total							3.88	0.55	Often applied

From Table 12, respondents often exercise SE to utilise materials and consuming energy at home, gaining a score of 3.88. Item #2 receives the top score of 4.33 in this area, illustrating the respondents consistent with SE always switch off a light when leaving a room. On the other hand, Item #10 got the lowest score of 2.86 in this area, demonstrating that the respondents somewhat hand wash clothes even though this used up less amount of water.

4.2.4 IT Solutions Acquisition

Table 13. Degree of SE Used in Acquiring IT Solutions

	Level of SE Applied					Total	$\bar{x}$	SD	Degree of SE Applied
	Always	Often	Somewhat	Seldom	Never				
1	2 (1.2%)	9 (5.2%)	38 (22.1%)	45 (26.2%)	78 (45.3%)	172 (100%)	4.09	0.993	Often applied
2	5 (2.9%)	25 (14.5%)	61 (35.5%)	37 (21.5%)	44 (25.6%)	172 (100%)	3.52	1.111	Often applied
3	86 (49.7%)	55 (32%)	20 (11.6%)	4 (2.3%)	7 (4.1%)	172 (100%)	4.22	1.018	Always applied
4	4 (2.3%)	36 (20.9%)	59 (34.3%)	43 (25%)	30 (17.4%)	172 (100%)	3.34	1.067	Somewhat applied
5	60 (34.9%)	80 (46.5%)	25 (14.5%)	2 (1.2%)	5 (2.9%)	172 (100%)	4.09	0.893	Often applied
6	4 (2.3%)	12 (7%)	42 (24.4%)	39 (22.7%)	75 (43.6%)	172 (100%)	3.98	1.084	Often applied
7	4 (2.3%)	21 (12.3%)	40 (23.4%)	34 (19.9%)	72 (42.1%)	171 (100%)	3.87	1.161	Often applied

(table continues)

Table 13. (continued)

	Level of SE Applied					Total	$\bar{x}$	SD	Degree of SE Applied
	Always	Often	Somewhat	Seldom	Never				
8	2 (1.2%)	23 (13.5%)	39 (22.8%)	42 (24.6%)	65 (38%)	171 (100%)	3.85	1.112	Often applied
9	1 (0.6%)	12 (7%)	43 (25.1%)	48 (28.1%)	67 (39.2%)	171 (100%)	3.98	0.991	Often applied
10	2 (1.2%)	21 (12.4%)	38 (22.4%)	35 (20.6%)	74 (43.5%)	170 (100%)	3.93	1.123	Often applied
11	47 (27.3%)	61 (35.5%)	41 (23.8%)	16 (9.3%)	7 (4.1%)	172 (100%)	3.73	1.087	Often applied
Total							3.84	0.60	Often applied

Table 13 reveals that the respondents often applied SE to acquiring IT solutions, scoring an average of 3.84. Whilst Item #3 has the highest score (4.22) of this area, Item #4 turns out the lowest score (3.34) of this area. Regarding Item #3, the respondents are consistent with SE by always comparing quotations from different vendors and determine the after sales services prior to finalising the selection of a vendor. According to Item #4, the respondents somewhat could not handle multiple ongoing projects at the same time.

4.3 RESPONDENTS' PROBLEMS IN APPLYING SE TO THEIR WAYS OF LIFE

The problems in applying SE to their way of life that were reported by respondents in the open-ended question in the questionnaire are grouped into five aspects as shown in Table 14.

Table 14. Frequency Distribution of Respondents' Problem in Applying SE to the Way of Life

	Frequency	Percent
1. Less dissemination of SE	8	13.8

(table continues)

Table 13. (continued)

	Frequency	Percent
2. Impracticality	19	32.8
3. Less serious consideration	18	31.0
4. Individualism	4	6.9
5. None of problem	9	15.5
Total	58	100.0

From Table 14, the majority of the respondents, representing 32.8%, view that SE is not practical to use in certain situations, comparable to the number of respondents who view that the problem comes from the fact that the respondents themselves do not take practicing SE seriously, which account for 31%. Whilst 15.5% of the respondents do not have any problems in putting SE to use in their way of life, 13.8% of them think that there is a lack of dissemination of SE knowledge and application to the populace. They could not figure out how they put SE to use in their way of life in a practical and reasonable way. The minority of the respondents, 6.9%, comment that applying SE to their way of life is an individual respect.

4.4 TESING HYPOTHESES

This section presents the results of testing hypotheses of this study in order to find out whether there is statistical significance of the degree of SE applied to respondents' ways of life in terms of spending behaviour towards demographical information of the respondents.

1) IT people who earn less are more likely to succeed in adapting SE to their spending behaviour than those who earn more.

Table 15. Testing Hypothesis 1 (t-test)

	12,000 - 25,000 (n=54)		25,000 and above (n=104)		t-value	p-value
	Mean	SD.	Mean	SD.		
Spending behaviour of IT people consistent with SE	3.74	0.325	3.80	0.334	-1.178	0.879

* $p < 0.05$.

Table 15 shows that a *t*-test analysis indicates an insignificant difference between the means of IT people who earn high salaries (12,000-25,000 baht) and those who earn low salaries (25,000 baht and above) (*t*-value = -1.178; $p > 0.05$). Hence, the data do not back up the hypothesis that IT people who earned less were more successful in adapting SE to their spending behavior than those who earn more.

2) Women working in IT are more likely to succeed in applying SE to their spending behaviour than men working in IT.

Table 16. Testing Hypothesis 2 (t-test)

	Male (n=99)		Female (n=74)		t-value	p-value
	Mean	SD.	Mean	SD.		
Spending behaviour of IT people consistent with SE	3.77	0.338	3.81	0.363	-0.797	0.787

* $p < 0.05$.

From Table 16, a *t*-test analysis points to an insignificant difference between the means of women working in IT and men working in IT in applying SE to their spending behaviour (*t*-value = -0.797; $p > 0.05$). Thus, the results do not substantiate the hypothesis above that women working in IT are more likely to succeed in applying SE to their spending behaviour compared with men working in IT.

3) Young people working in IT are more successful in applying SE to their spending behaviour than those who are older.

Table 17. Testing Hypothesis 3 (t-test)

	20 – 29 (n=91)		30 and above (n=82)		t-value	p-value
	Mean	SD.	Mean	SD.		
Spending behaviour of IT people consistent with SE	3.67	0.320	3.92	0.332	-5.006	1.0

* $p < 0.05$.

According to Table 17, a *t*-test analysis implies an insignificant difference between the means of both young (20-29) and old (30 and above) people working in IT (*t*-value = -5.006; $p > 0.05$). Therefore, the results do not support the hypothesis that young people who are working in IT apply SE to the spending behavior better than those who are senior. In fact, they reveal a significant opposite effect. The young people working in IT are less successful in applying SE to their spending behaviour than the more senior ones.

4) IT people who know the conceptual framework of SE are more likely to utilise SE to their spending behaviour than those who do not know it.

Table 18. Testing Hypothesis 4 (t-test)

	Know SE (n=67)		Do not know SE (n=105)		t-value	p-value
	Mean	SD.	Mean	SD.		
Spending behaviour of IT people consistent with SE	3.85	0.340	3.74	0.343	2.072	0.020 *

* $p < 0.05$.

From Table 18, a *t*-test analysis points to a significant difference between the means of IT people who know and those who do not know SE in adapting to their spending behaviour (*t*-value = 2.072; $p < 0.05$). Thus, the results substantiate the hypothesis above that IT people who know the conceptual framework of SE are more

likely to succeed in applying SE to their spending behaviour compared with those who do not know it.

5) Single people who are working in IT are more successful in adapting SE to their spending behaviour than those who are married.

Table 19. Testing Hypothesis 5 (t-test)

	Single (n=133)		Married (n=40)		t-value	p-value
	Mean	SD.	Mean	SD.		
Spending behaviour of IT people consistent with SE	3.75	0.336	3.89	0.371	-2.279	0.988

* $p < 0.05$.

Table 19 illustrates that a *t*-test analysis suggests an insignificant difference between the means of both single and married people working in IT (*t*-value = -2.279; $p > 0.05$). Consequently, the results do not prove the hypothesis that IT people who are still single are more successful in applying SE to the spending behavior than those who got married. In reality, they reflected a significant reverse effect. The married people working in IT successfully apply SE to their spending behaviour compared to those who are single.