CHAPTER 5

RESEARCH RESULTS

Profiles of respondents, future SOW analysis, reliability analysis of constructs measures, model assessments for both measurement model and structural model, and hypotheses testing are reported in this part. Then, all hypotheses are tested and research results are discussed and concluded.

Respondents' Profile

This research collected data from two different industries. As mentioned, most of customers in both industries have multi-brand relationship with the brands in the category. Four hundred samples from grocery store and credit card customers were collected from four different grocery stores and four different expositions, respectively. We collected one hundred customers per grocery stores and per expositions. The profiles of the samples are shown in Table 6.

TABLE 6

RESPONDENTS' PROFILE

Characteristics	Credit Card (N=400)		Grocery Store (N=400)	
	Frequency	%	Frequency	%
Gender				
- Male	175	43.8	156	39.2
- Female	225	56.3	242	60.8
Age				
- 21-30	128	32.0	202	50.8
- 31-40	135	33.8	117	29.4
- 41-50	99	24.8	53	13.3
- 51-60	35	8.8	23	5.7
- > 60	3	0.8	3	0.8
Education				
- Below bachelor's degree	32	8.0	78	19.7
- Bachelor's degree	239	59.9	239	60.6
- Above bachelor's degree	128	32.1	78	19.7
Occupation				
- Wageworker/Monger	9	2.3	39	9.8
- White-collar	203	50.8	180	45.3
- Government officer	92	23.0	50	12.6
- Freelance	16	4.0	24	6.0
- Business owner	50	12.5	57	14.4
- Housewife	9	2.3	11	2.8
- Others	21	5.3	36	9.1

TABLE 6 (CONTINUED)

Characteristics	Credit Card N = 400		Grocery Store N = 400	
	Frequency	%	Frequency	%
Personal monthly income				
- Less than 20,000 Baht	65	16.3	176	44.8
- 20,000 – 50,000 Baht	218	54.8	158	40.2
- 50,000 – 80,000 Baht	63	15.8	28	7.1
- More than 80,000 Baht	52	13.1	31	7.9
Number of current existing relationship (Credit Card – Average 2.93 brands per customer) (Grocery Store – Average 3.35 brands per customer)				
- 1 brand	5	1.3	5	1.3
- 2 brands	216	54.1	102	25.5
- 3 brands	81	20.3	140	35.0
- 4 brands	50	12.5	92	23.0
- 5 brands	25	6.3	41	10.2
- 6 brands or more	22	5.8	20	5.0
Number of loyalty card (Average 1.5 loyalty cards per customer)				
- None			81	20.3
- 1 brand			150	37.5
- 2 brands			92	23.0
- 3 brands			53	13.2
- 4 brands			18	4.5
- 5 brands			6	1.5

The respondent profiles from both industries are similar and different in some aspects. The samples are female more than male, i.e., about 60% female and 40% male. Most of samples from credit card customers are in age 21-50 years but from grocery stores are about half of the age of credit card customers, which are in age 21-30 years. Most of samples have high degree of education (bachelor or higher degree), i.e., 90% from credit card samples and 80% from grocery stores samples. Half of the samples are employees in private organization or white collars. And the rest of them are average in all other careers. About 50% of credit card samples have income 20,000-50,000 Baht per month and the rest of them are average in other three groups. On the contrary, most of grocery stores samples (85%) have income less than 50,000 Baht per month. Moreover, this profile confirms that most of customers in both industries are multi-brand-relationship customers and have multi-brand relationship with portfolio of brands. The average number of current existing relationship of credit card samples is 2.93 brands per customer and of grocery store samples is 3.35 brands per customer. And about 85% of them have multi-brand relationship with 2 to 4 brands. Note that, even we screened out customers who have a single brand relationship but a few of them are found (i.e. about 1% in each industry) in this research profile and we cut these data out from our further analysis.

Analysis of Future SOW

In this study, we collect future SOW data from the customers by survey method. Both objective and subjective future SOW are measured. Open-ended questions used to measure objective future SOW are

1. In the next 6 months, you expect to spend on all brands in product or service category approximately _____ Baht/Month.
2. In the next 6 months, you expect to spend on the top highest spending brand approximately _____ Baht/Month.
3. In the next 6 months, you expect to spend on the 2nd highest spending brand approximately _____ Baht/Month.

Three rating-scale items used to measure subjective and descriptive statistics of SOW are shown in Table 7.

TABLE 7

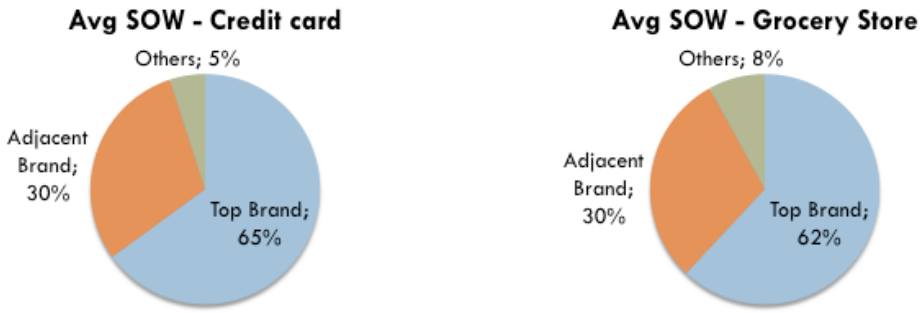
DESCRIPTIVE STATISTICS OF FUTURE SOW

Constructs	Credit Card		Grocery Store	
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**
Objective Measures:				
Future SOW – Top Brand (%)	0.65	0.21	0.62	0.18
Future SOW – Adjacent Brand (%)	0.30	0.18	0.30	0.16
Subjective Measures:				
Future SOW – Top Brand				
1. In the future, you expect to buy this	5.28	1.44	4.81	1.44
brand more often than other brands.	5.30	1.38	4.79	1.44
2. In the future, you tend to spend on	5.29	1.38	4.72	1.47
this brand more than other brands.				
3. In the future, you consider buying				
this brand before other brands.				
Future SOW – Adjacent Brand				
1. In the future, you expect to buy this	3.94	1.41	4.17	1.34
brand more often than other brands.	3.92	1.41	4.14	1.35
2. In the future, you tend to spend on	3.92	1.41	4.16	1.34
this brand more than other brands.				
3. In the future, you consider buying				
this brand before other brands.				

Note that future SOW of top brand is about two times SOW of adjacent brand in both industries. The average future SOW of top brand is about 65% and of adjacent brand is 30%. Similarly, the subjective future SOW of top brand in each

measurement item has higher average than of adjacent brand. However, we find that a gap between subjective future SOW of top brand and adjacent brand are different in the two industries. Average subjective future SOW in credit card industry of top brand is 5.28-5.30 and of adjacent brand is 3.92-3.94. But in grocery store, subjective future SOW of top brand is 4.72-4.81 and of adjacent brand is 4.14-4.17. It is clear that the gap between top two brands of credit card industry is higher than of grocery store industry. In addition, the results support that customers allocate most of their SOW to top two brands. Sum total of top two brands' SOW is more than 90% in both industries, i.e., 95% in credit card industry and 92% in grocery store industry, as illustrate in Figure 9. Therefore, it is appropriate to study the proposed model that focus on the competitive effects from customer's top two brands.

FIGURE 9
AVERAGE OBJECTIVE SOW



Reliability Analysis

We analyze Cronbach's Alpha reliability from all constructs in the proposed model in both industries. Results are shown in Table 8.

TABLE 8
RELIABILITY ANALYSIS OF MEASURED CONSTRUCTS
(CRONBACH'S ALPHA)

Constructs	No. of Items	Cronbach's Alpha	
		Credit Card	Grocery Store
Top Brand			
Value Superiority	4	.73	.73
Brand Superiority	4	.86	.86
Relationship Instruments	4	.68	.81
Subjective Future SOW	3	.93	.92
Adjacent Brand			
Value Superiority	4	.76	.75
Brand Superiority	4	.93	.91
Relationship Instruments	4	.75	.84
Subjective Future SOW	3	.94	.93

The proposed model has 6 antecedents – value superiority, brand superiority, and relationship instruments from both brands and two dependent variables – future SOW from both brands. The results show that all constructs are highly reliable, all Cronbach's alpha is about .80 and .90. However some of them is about .70, which is the conventional criterion suggested by Nunnally (1978). In credit card industry, all constructs show Cronbach's alpha over .70 except for the relationship instruments construct of top brand that has value .68, which is slightly below the conventional criterion. However, above .60 is acceptable for newly developed constructs and other indicators of construct validity are good (Hair et al. 2006). The figures are range from

0.68 to 0.94. In grocery store industry, all figures are above .70, the lowest figure is .73 and the highest figure is .93. The results show that every construct measures have high and acceptable reliability that are appropriate and can be used in further analysis.

Model Assessment

After testing the reliability of all measured constructed, we apply a two-step approach (Anderson & Gerbing, 1988) to test the data. Firstly, we develop and assess measurement model to test validity and the next step is structural equation model. This study tests separated model of top brand and adjacent brand in both industries. And then integrated model is analyzed. This research uses software AMOS version 7.0 to analyze the data. The variable names are represented in the program as shown in Table 9.

TABLE 9
VARIABLE NAMES IN AMOS PROGRAMMING

Variable Names	Constructs
FSOW1	Future SOW of top brand
FSOW2	Future SOW of adjacent brand
VALUE1	Value superiority of the top brand
BRAND1	Brand superiority of the top brand
RI1	Relationship instruments of the top brand
VALUE2	Value superiority of the adjacent brand
BRAND2	Brand superiority of the adjacent brand
RI2	Relationship instruments of the adjacent brand

Measurement Model

This research tests the model fit of each measurement model. Measurement model of top brand, adjacent brand, and top two brands are shown in

Figure 10, 11, and 12 respectively. All models are analyzed in both industries. Therefore, we have 6 measurement models in total.

FIGURE 10
MEASUREMENT MODEL (TOP BRAND)

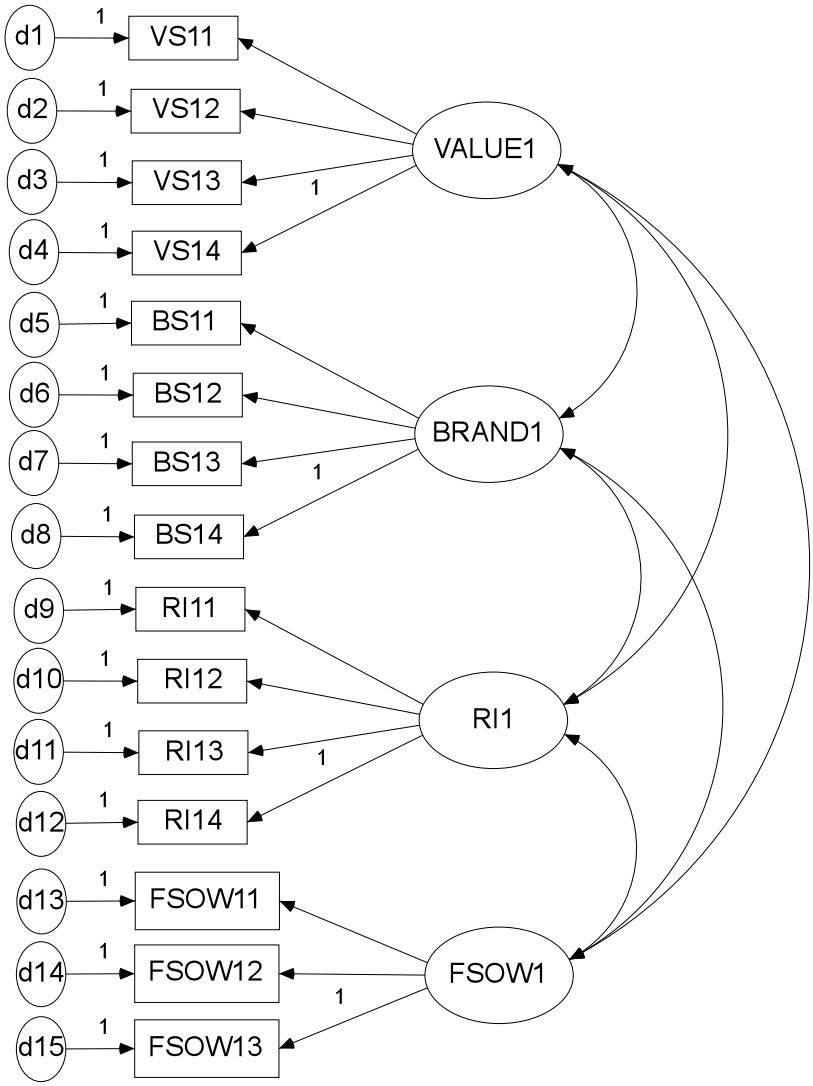


FIGURE 11

MEASUREMENT MODEL (ADJACENT BRAND)

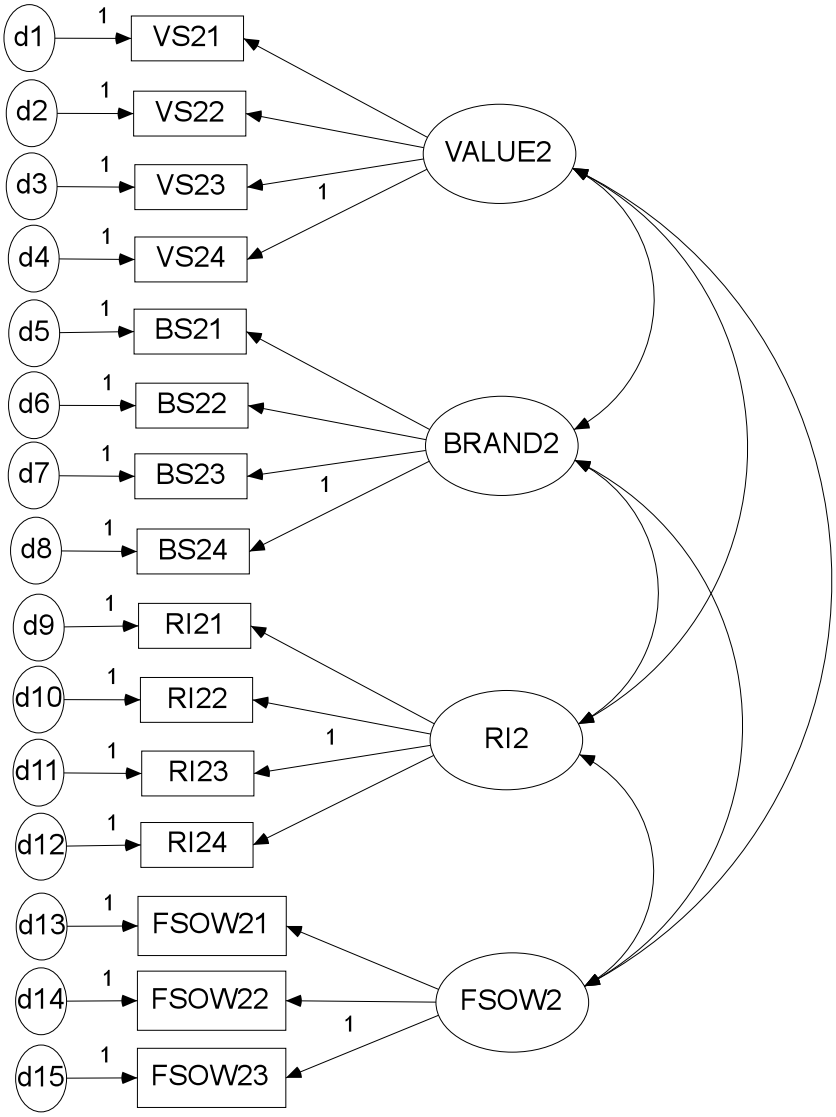
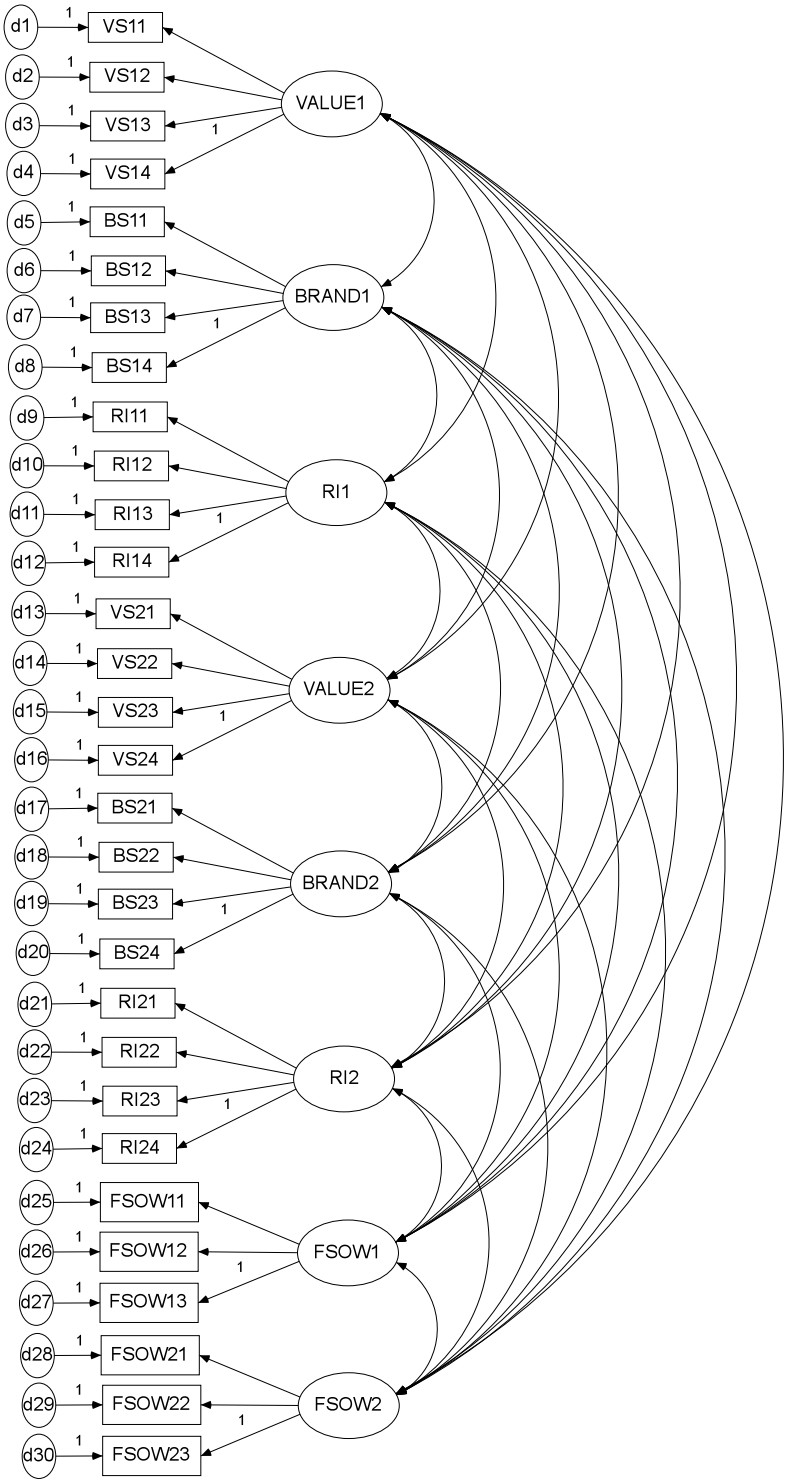


FIGURE 12

MEASUREMENT MODEL (TOP TWO BRANDS)



Three main groups of model fit indices – chi-square likelihood, the fit index, and the residual – are applied to analyze the model fit (Anderson & Gerbing, 1988). The results of fit indices from all measurement models in both industries are shown in Table 10. The complete results of the measurement model analysis in both industries are shown in the Appendix 3 and 4 of this research.

TABLE 10
FIT INDICES FOR MEASUREMENT MODELS

Parameter	Credit Card			Grocery Store		
	Top Brand Model	**Adjacent Brand Model**	**Top Two Brands Model**	**Top Brand Model**	**Adjacent Brand Model**	**Top Two Brands Model**
$\chi 2$	117.08	158.34	472.04	104.66	219.05	311.04
d.f.	48	84	247	59	84	224
$\chi 2$ / d.f.[a]	2.44	1.89	1.91	1.77	2.61	1.39
GFI[b]	.96	.95	.91	.96	.93	.93
AGFI[b]	.93	.93	.88	.94	.90	.90
NFI[b]	.95	.96	.91	.96	.94	.94
RFI[b]	.93	.95	.90	.95	.93	.92
IFI[b]	.97	.98	.96	.98	.96	.98
TLI[b]	.96	.98	.95	.98	.95	.98
CFI[b]	.97	.98	.96	.98	.96	.98
RMSEA[c]	.06	.05	.05	.04	.06	.04

Remark: [a] Desirable values below 3; Acceptable values below 5 (Carmines & Mclver, 1981; Marsh & Hocevar, 1985)

[b] The value close to 1 indicates a good fit (Fit Indices ranging between 0 to 1) (Arbuckle & Worthke, 1995; Bentler & Bonnet, 1980; Marsh, Balla, & Hau, 1996)

[c] Acceptable values below .10 (Browne & Cudeck, 1993)

All of chi-square to degree of freedom ratio ($\chi 2$ / d.f.) in both industries is in the desirable level, in which desirable values below 3 and acceptable values below 5 (Carmines & Mclver, 1981; Marsh & Hocevar, 1985). These ratios results show a very good fit between proposed model and data. Moreover, value of all other fit indices (GFI, AGFI, NFI, RFI, IFI, TLI, and CFI) should be closed to 1 to indicate a reasonable good fit (fit Indices ranging between 0 and 1) (Arbuckle & Worthke, 1995; Bentler & Bonnet, 1980; Marsh et al., 1996). This study applies many different indices since they subscribe different approaches to accessing the model fit. And the results show that all fit indices are high (above .90 with the exception a little less value than .90 for AGFI of top two brands model in credit card samples, .88) and this indicates a good model fit. Finally, root mean square error of approximation (RMSEA) from all models is below an acceptable range of .10 as suggested by Browne and Cudeck (1993). This indicates that the estimations are relatively free from errors, which represent a good fit of the model in relation to the degree-of-freedom. Therefore, these measurement models are fitted well with the data samples. And it can present that the proposed structural model should also be fitted in further analysis.

Structural Model

Once we are confidence with measurement items of all constructs in the model, we then analyze structural equation models and evaluate model fit. In this section, we present model fit of all models in credit card and grocery store industries. Analysis of hypotheses testing will be reported in the next section. Figure 13 shows the operational model of top brand, which is the same model with adjacent brand. The model comprise of 3 antecedents of future SOW - value superiority, brand superiority, and relationship instruments.

FIGURE 13

OPERATIONAL MODEL OF TOP BRAND AND ADJACENT BRAND

(SEPARATED MODEL)

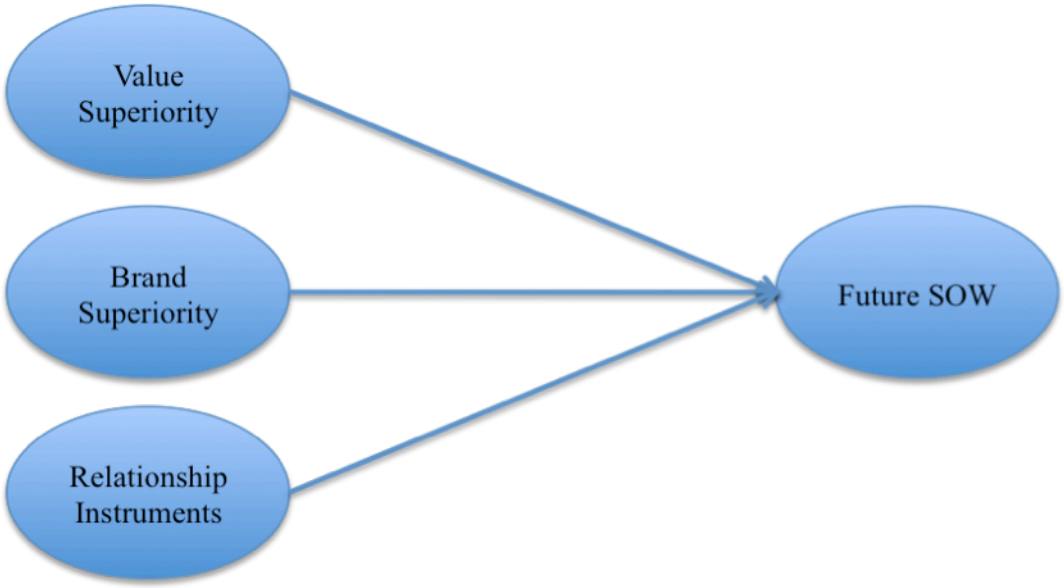
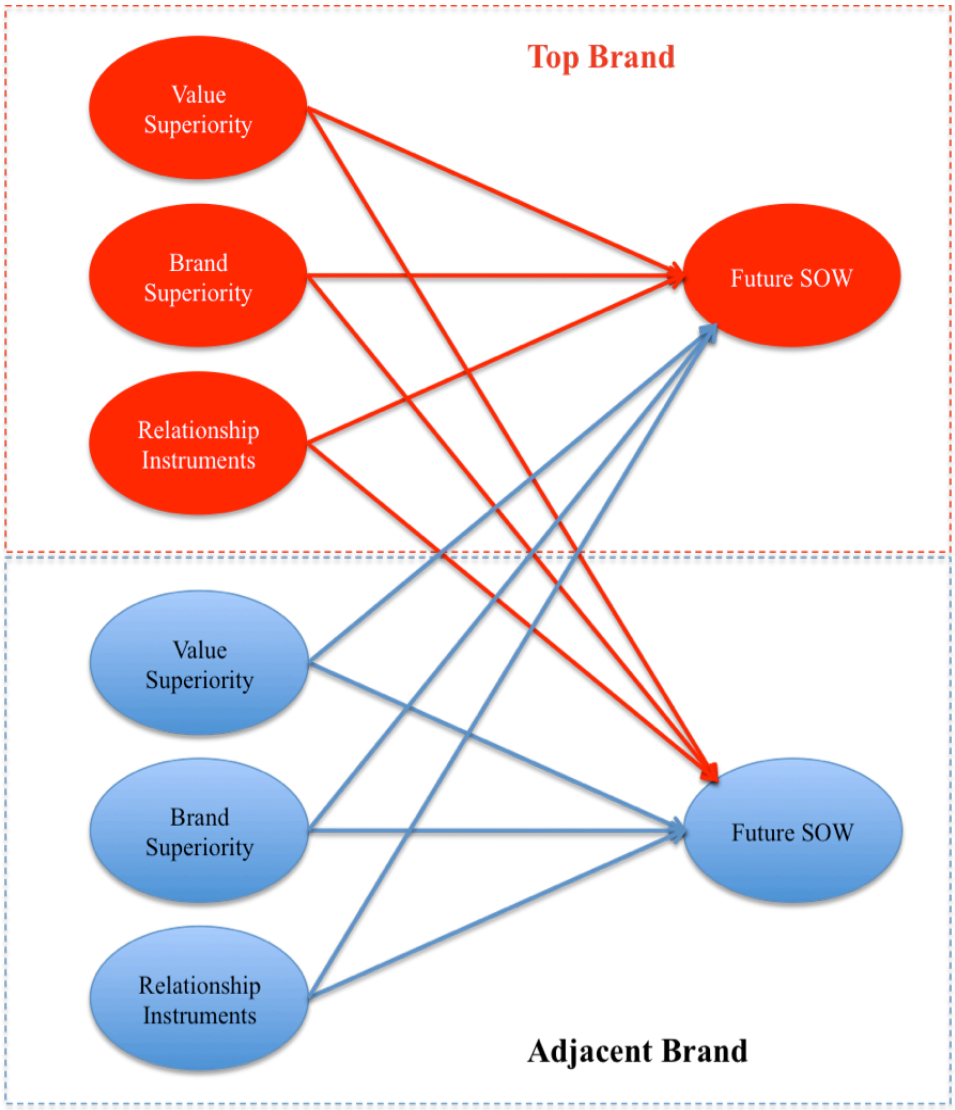


Figure 14 shows operational model of top two brands. The model combines all constructs from both brands (top brand and adjacent brand) and all constructs from each brand are expected to have direct effect to other's future SOW. Therefore, there are 6 factors representing future SOW of both brands.

FIGURE 14

OPERATIONAL MODEL OF TOP TWO BRANDS (INTEGRATED MODEL)



All fit indices results show in the same direction with the measurement model. The results of fit indices in both model and both industries are shown in Table 11. The complete results of fit indices of structural models are shown in the Appendix 5 and 6.

TABLE 11

FIT INDICES FOR STRUCTURAL MODELS

Parameter	Credit Card			Grocery Store		
	Top Brand Model	**Adjacent Brand Model**	**Top Two Brand Model**	**Top Brand Model**	**Adjacent Brand Model**	**Top Two Brand Model**
$\chi 2$	117.39	158.34	542.60	105.72	219.05	415.16
DF	49	84	251	60	84	229
$\chi 2$ / DF[a]	2.40	1.89	2.16	1.76	2.61	1.81
GFI[b]	.96	.95	.90	.96	.93	.90
AGFI[b]	.93	.93	.86	.94	.90	.87
NFI[b]	.95	.96	.90	.96	.94	.92
RFI[b]	.93	.95	.88	.95	.93	.90
IFI[b]	.97	.98	.94	.98	.96	.96
TLI[b]	.96	.98	.93	.98	.96	.95
CFI[b]	.97	.98	.94	.98	.96	.96
RMSEA[c]	.06	.05	.06	.04	.06	.05

Remark: [a] Desirable values below 3; acceptable values below 5 (Carmines & Mclver, 1981; Marsh & Hocevar, 1985)

[b] The value close to 1 indicates a good fit (Fit Indices ranging between 0 to 1) (Arbuckle & Worthke, 1995; Bentler & Bonnet, 1980; Marsh et al., 1996)

[c] Acceptable values below .10 (Browne & Cudeck, 1993)

All indices illustrate a very good fit between proposed model and the sample data. Chi-square to degree of freedom ratio ($\chi 2$ / d.f.) from all models in both industries is in the desirable level (Carmines & Mclver, 1981; Marsh & Hocevar, 1985). Other fit indices are all above .90, which show the very good fit (Arbuckle & Worthke, 1995; Bentler & Bonnet, 1980; Marsh et al., 1996), except for AGFI figures of top two brands in credit card and grocery store samples (.86 and .88 respectively) and RFI figures of top two brands in credit card sample (.87) which are slightly below

the desirable level. Moreover, root mean square error of approximation (RMSEA) from all models is below the acceptable value of .10 (Browne & Cudeck, 1993). In conclusion, all the fit indices indicate the good fit of the proposed model to the sample data.

Moreover, the results also show that, in credit card industry, square multiple correlations of top brand's SOW is .37 and of adjacent brand's SOW is .51 when modeled separately. However, these 2 variables can be explained better in integrated model by increasing about 19% for top brand (.44) and 8% for adjacent brand (.55). On the other hand, in grocery store industry, the explained variance of top brand's and adjacent brand's SOW is about the same between separated model and integrated model. Full results for the estimate of square multiple correlations are shown in Appendix 5 and 6.

Key Findings

This research tests our proposed model using data from credit card industry in this section. First, top brand and adjacent brand are modeled and analyzed separately. And then, we model both brand together as the integrated model and test proposed hypotheses. Results of this test are reported. We apply the same model with grocery store industry to test the robustness of proposed model.

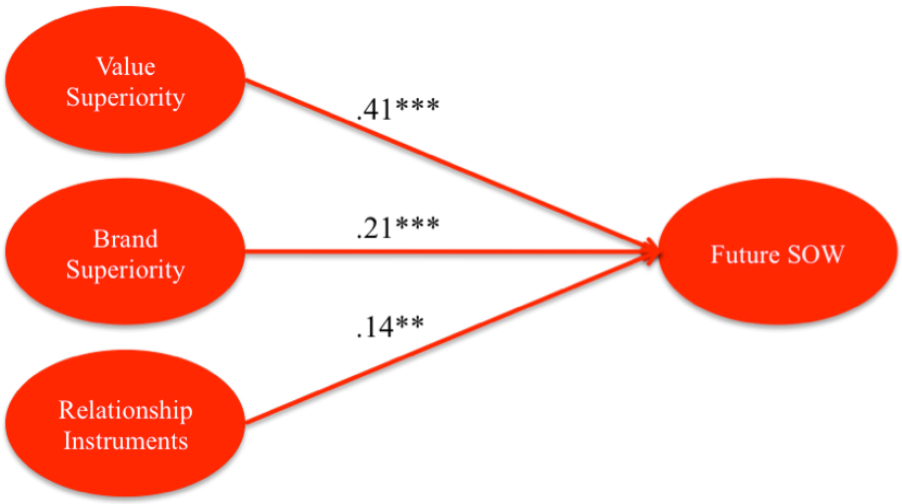
Credit Card Industry

Figure 15 and 16 show the results of standardized regression weights of separated model, i.e., top brand and adjacent brand respectively.

FIGURE 15

STANDARDIZED REGRESSION WEIGHTS OF SEPARATED MODEL

(TOP BRAND – CREDIT CARD INDUSTRY)

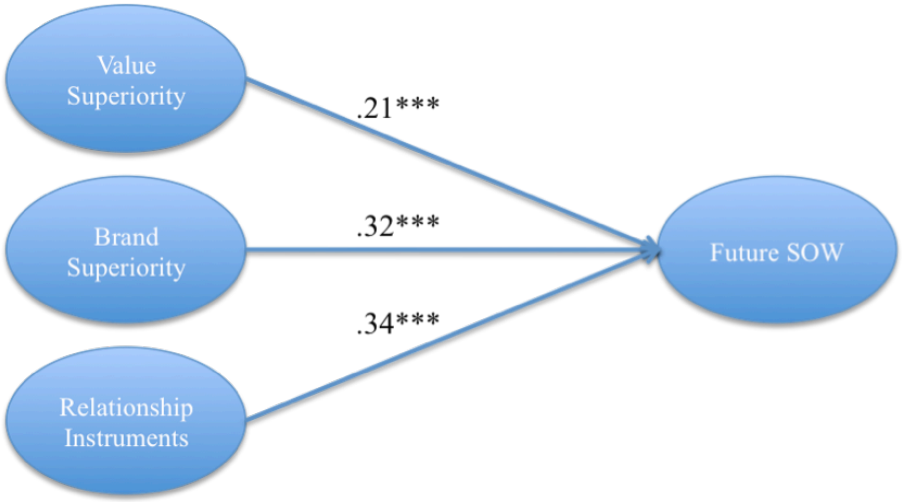


*** Significant at .01 level or better
** Significant at .05 level or better

FIGURE 16

STANDARDIZED REGRESSION WEIGHTS OF SEPARATED MODEL

(ADJACENT BRAND – CREDIT CARD INDUSTRY)



*** Significant at .01 level or better
** Significant at .05 level or better

The results show that when modeled separately, value superiority, brand superiority, and relationship instruments of each brand have significant, positive effects on its brand future SOW. For top brand, path coefficients of an effect of value superiority, brand superiority, and relationship instruments on future SOW are .41, .21, and .14, respectively. And they are .21, .32, and .34 for adjacent brand. Table 12 summarizes all path coefficients of each separated model.

TABLE 12:
SUMMARY OF PATH COEFFICIENTS OF SEPARATED MODELS
(CREDIT CARD INDUSTRY)

Path	**Coefficient**	
	Top Brand	**Adjacent Brand**
Value Superiority	.41***	.21***
Brand Superiority	.21***	.32***
Relationship Instruments	.14**	.34***

*** Significant at .01 level or better
** Significant at .05 level or better

The integrated model combines top two brands together. And we also hypothesize that the drivers of top brand have negative effects on adjacent brand's SOW and vice versa. Figure 17 illustrates results of hypotheses testing and it shows only significant coefficients. And Table 13 shows all path coefficients of the integrated model.

FIGURE 17

STANDARDIZED REGRESSION WEIGHTS OF INTEGRATED MODEL

(CREDIT CARD INDUSTRY)

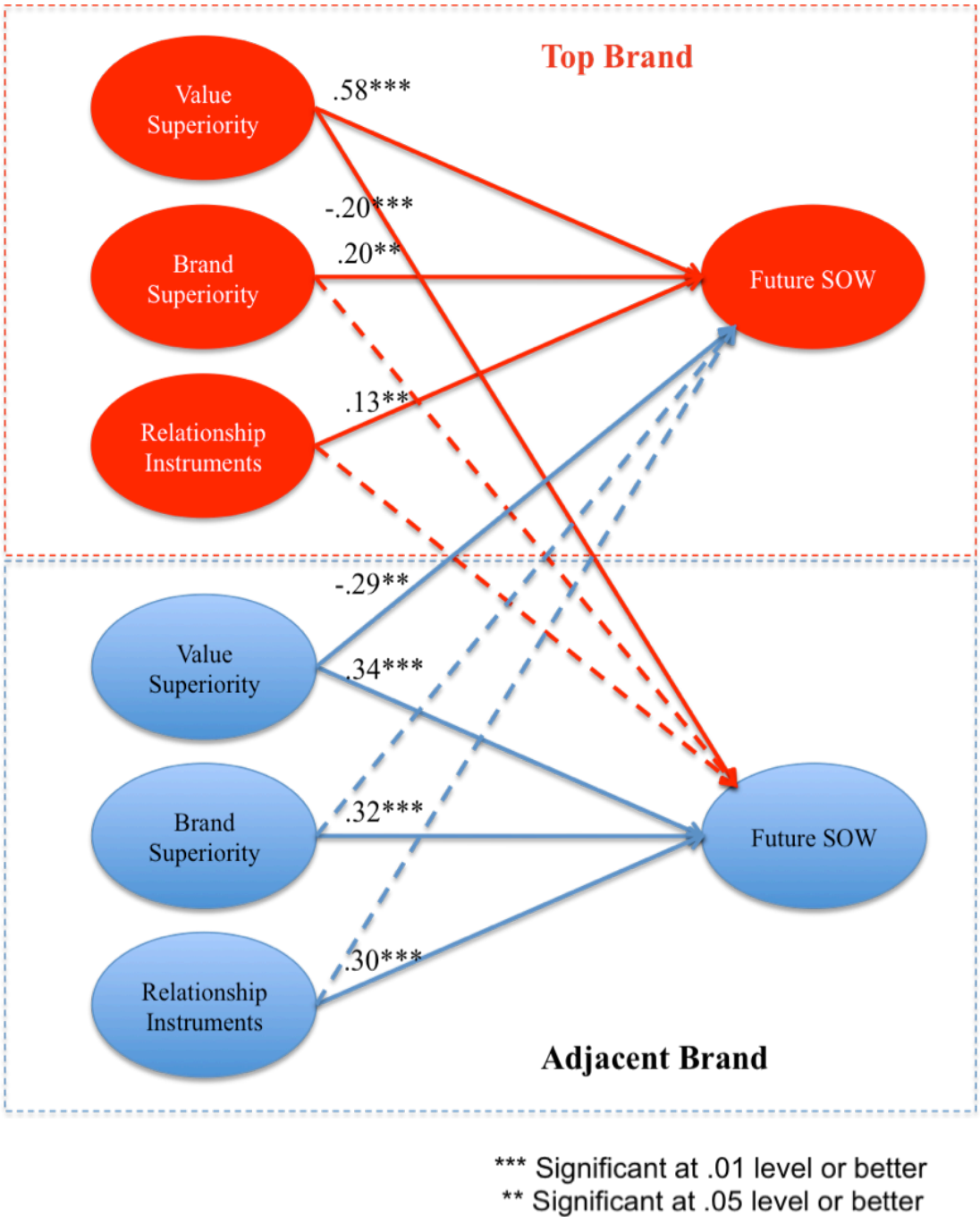


TABLE 13
SUMMARY OF PATH COEFFICIENTS OF INTEGRATED MODEL
(CREDIT CARD INDUSTRY)

Path	Coefficient
Value Superiority (Top Brand) -> Future SOW (Top Brand)	.58***
Brand Superiority (Top Brand) -> Future SOW (Top Brand)	.20**
Relationship Instruments (Top Brand) -> Future SOW (Top Brand)	.13**
Value Superiority (Top Brand) -> Future SOW (Adjacent Brand)	-.20***
Brand Superiority (Top Brand) -> Future SOW (Adjacent Brand)	.01
Relationship Instruments (Top Brand) -> Future SOW (Adjacent Brand)	-.05
Value Superiority (Adjacent Brand) -> Future SOW (Adjacent Brand)	.34***
Brand Superiority (Adjacent Brand) -> Future SOW (Adjacent Brand)	.32***
Relationship Instruments (Adjacent Brand) -> Future SOW (Adjacent Brand)	.30***
Value Superiority (Adjacent Brand) -> Future SOW (Top Brand)	-.29**
Brand Superiority (Adjacent Brand) -> Future SOW (Top Brand)	.00
Relationship Instruments (Adjacent Brand) -> Future SOW (Top Brand)	.13

*** Significant at .01 level or better
** Significant at .05 level or better

Hypotheses Testing

This study proposes that all drivers – value superiority, brand superiority, and relationship instruments – of one particular brand positively influence its future SOW (H1, H2, and H3 respectively). Both top brand and adjacent brand are expected to show the same results. In addition, the negative effects of top brand's drivers on future SOW of adjacent brand are hypothesized (H4). Conversely, we also propose that drivers of adjacent brand negatively influence future SOW of top brand (H5). The results of these 5 hypotheses are presented by the following.

H1 hypothesized that value superiority has a positive effect on its future SOW. As Table 13 indicates, value superiority of top brand demonstrates a significant, positive effect on its future SOW ($\beta = .58$, $p < .01$). This hypothesis is

also supported by the result of adjacent brand. Value superiority of adjacent positively influences its future SOW ($\beta = .34$, $p < .01$). Therefore, H1 is supported.

H2 and H3 are also supported. Brand superiority has a positive effect on its future SOW in both top brand ($\beta = .20$, $p < .05$) and adjacent brand ($\beta = .32$, $p < .01$). Table 13 also shows that top brand's relationship instruments positively influence its SOW ($\beta = .13$, $p < .05$) and it shows the same result with adjacent brand ($\beta = .30$, $p < .01$).

H4, which predicted that top brand's drivers negatively influence future SOW of adjacent brand, are partially supported. There is only significant effect of drivers of top brand on adjacent brand's future SOW, i.e. a negative effect of value superiority of top brand on adjacent brand's future SOW ($\beta = -.20$, $p < .01$). Neither the effects of brand superiority and relationship instruments is significant (brand superiority: $\beta = .01$, n.s.; relationship instruments: $\beta = -.05$, n.s.).

Finally, we hypothesized that drivers of adjacent brand have a negative effect on future SOW of top brand (H5). As Table 13 illustrates, similar pattern to H4, only value superiority of adjacent brand negatively influences future SOW of top brand ($\beta = -.29$, $p < .05$). However, the effect of brand superiority of adjacent brand on future SOW of top brand is not significant ($\beta = .00$, n.s.), not either the effect of relationship instruments ($\beta = .13$, n.s.). Therefore, H5 is partially supported. The complete results of model testing are shown in the Appendix 5 of this research.

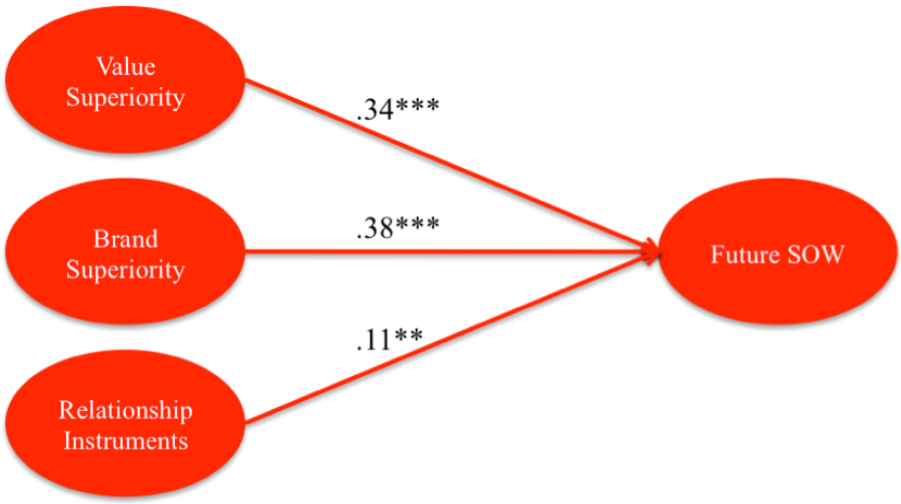
Model Robustness (Grocery Store Industry)

To test the robustness of our proposed model, we test the same model with grocery store industry. Separated models for both top brand and adjacent brand are tested. The results of hypotheses testing are shown in Figure 18 and 19.

FIGURE 18

STANDARDIZED REGRESSION WEIGHTS OF SEPARATED MODEL

(TOP BRAND – GROCERY STORE INDUSTRY)

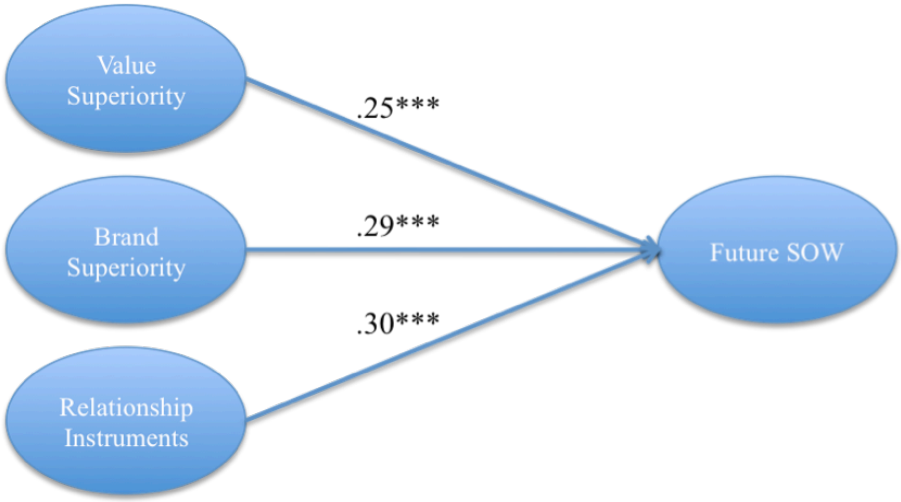


*** Significant at .01 level or better
** Significant at .05 level or better

FIGURE 19

STANDARDIZED REGRESSION WEIGHTS OF SEPARATED MODEL

(ADJACENT BRAND – GROCERY STORE INDUSTRY)



*** Significant at .01 level or better
** Significant at .05 level or better

Consistent with credit card industry, when modeled separately, value superiority, brand superiority, and relationship instruments positively influence its brand future SOW in both top brand and adjacent brand. Path coefficients are .34, .37, and .11 in top brand and .25, .29, and .30 in adjacent brand for value superiority, brand superiority, and relationship instruments respectively. Table 14 summarizes all path coefficients of each separated model in grocery store industry.

TABLE 14
SUMMARY OF PATH COEFFICIENTS OF SEPARATED MODELS
(GROCERY STORE INDUSTRY)

Path	**Coefficient**	
	Top Brand	**Adjacent Brand**
Value Superiority	.34***	.25***
Brand Superiority	.38***	.29***
Relationship Instruments	.11**	.30***

*** Significant at .01 level or better
** Significant at .05 level or better

The integrated model for grocery store customers is then tested. The results of hypotheses testing and significant coefficients are illustrated in Figure 20. Table 15 shows a summary of all path coefficients of integrated model in grocery industry. And Appendix 6 shows the complete results of the hypotheses testing in grocery store industry.

FIGURE 20

STANDARDIZED REGRESSION WEIGHTS OF INTEGRATED MODEL

(GROCERY STORE INDUSTRY)

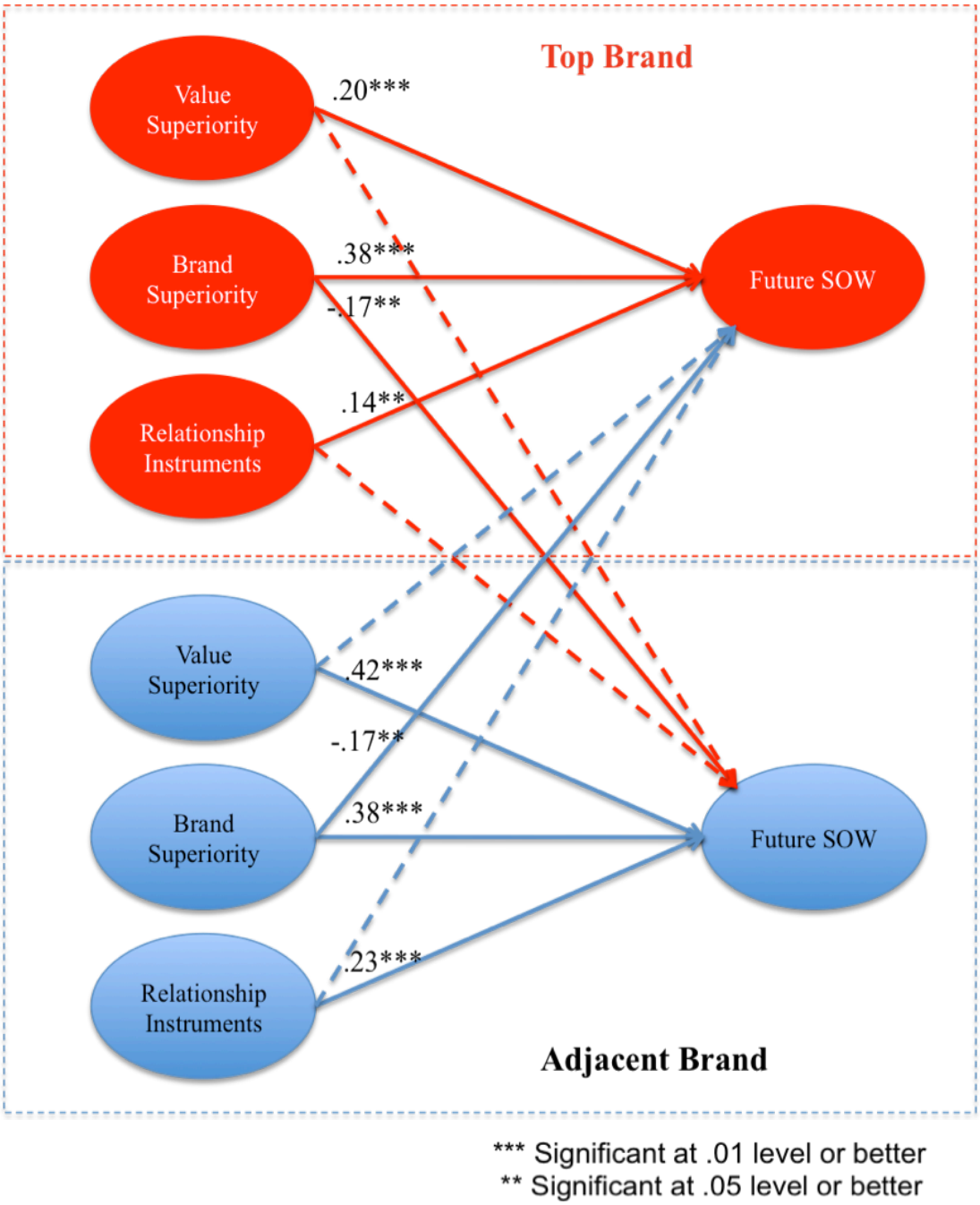


TABLE 15
SUMMARY OF PATH COEFFICIENTS OF INTEGRATED MODEL
(GROCERY STORE INDUSTRY)

Path	Coefficient
Value Superiority (Top Brand) -> Future SOW (Top Brand)	.20***
Brand Superiority (Top Brand) -> Future SOW (Top Brand)	.38***
Relationship Instruments (Top Brand) -> Future SOW (Top Brand)	.14**
Value Superiority (Top Brand) -> Future SOW (Adjacent Brand)	-.13
Brand Superiority (Top Brand) -> Future SOW (Adjacent Brand)	-.17**
Relationship Instruments (Top Brand) -> Future SOW (Adjacent Brand)	.05
Value Superiority (Adjacent Brand) -> Future SOW (Adjacent Brand)	.42***
Brand Superiority (Adjacent Brand) -> Future SOW (Adjacent Brand)	.38***
Relationship Instruments (Adjacent Brand) -> Future SOW (Adjacent Brand)	.23***
Value Superiority (Adjacent Brand) -> Future SOW (Top Brand)	.20
Brand Superiority (Adjacent Brand) -> Future SOW (Top Brand)	-.17**
Relationship Instruments (Adjacent Brand) -> Future SOW (Top Brand)	.13

*** Significant at .01 level or better
** Significant at .05 level or better

When modeled top two brands together, hypotheses testing of proposed model in grocery store industry show similar results to credit card industry. The results show by the following.

H1, H2, and H3, which hypothesized that value superiority, brand superiority, and relationship instruments, respectively have a positive effect on its future SOW, are supported. As illustrated by Table 15, value superiority of top brand demonstrates a significant, positive effect on its future SOW ($\beta = .20$, $p < .01$). As well as the effect of value superiority of adjacent brand on its future SOW ($\beta = .42$, $p < .01$). Brand superiority has a positive effect on its future SOW in both top brand ($\beta = .38$, $p < .01$) and adjacent brand ($\beta = .38$, $p < .01$). Table 15 also shows that top brand's relationship instruments have a significant, positive effect on its SOW ($\beta = .14$, $p < .05$) and similar result showed for adjacent brand ($\beta = .23$, $p < .01$).

The negative effects of top brand's drivers on future SOW of adjacent brand are expected in H4. Table 15 shows that H4 is partially supported. Similar to data in credit card industry, there is only significant effect of top brand's drivers on adjacent brand's future SOW but a significant driver is different. Instead of value superiority in credit card industry, brand superiority of top brand has a significant, negative effect on adjacent brand's future SOW ($\beta = -.17$, $p < .05$) in grocery store industry. However, neither the effects of value superiority and relationship instruments is significant (value superiority: $\beta = -.13$, n.s.; relationship instruments: $\beta = .05$, n.s.).

Similarly, H5, which hypothesized that drivers of adjacent brand have a negative effect on future SOW of top, is partially supported. Only brand superiority of adjacent brand negatively influences future SOW of top brand ($\beta = -.17$, $p < .05$). The effect of value superiority and relationship instruments of adjacent brand on future SOW of top brand is not significant (value superiority: $\beta = .20$, n.s.; relationship instruments: $\beta = .13$, n.s.).

Discussion and Conclusions

The results show that H1, H2, and H3 are all supported when we modeled separately. Without consideration of the competitive effects, value proposition, brand proposition, and relationship instruments have significant, positive effects on its brand future SOW. For top brand, it seems to be that value superiority is more important than brand superiority and relationship instruments in credit card industry but both value superiority and brand superiority seem to be more important than relationship instruments in grocery store industry. On the other hand, for adjacent brand, the results indicate that all drivers seem to be equally important in both industries.

Consistent with separated model, the results show significant effects of all brand's drivers on its brand future SOW in integrated model when top brand and adjacent brand are modeled together. For credit card industry, however, it shows more

evidence that value superiority of top brand is more important than brand superiority and relationship instruments. But all adjacent brand's drivers are equally important for its future SOW. For grocery store industry, instead of value superiority, it is brand superiority of top brand that has higher effect than the other two drivers (i.e., value superiority and relationship instruments). However, it shows similar results with the adjacent brand in credit card industry, that is all three drivers seem to be equally important for its SOW of adjacent brand. The pattern of effects is shown to be different between top brand and adjacent brand in both industries.

However, the integrated model also represents effects of top brand's drivers on adjacent brand's SOW and vice versa. Although it is not all drivers that influence SOW of the competing brand, the same drivers in both brands have negative effects on the competing brand's SOW. Those drivers are value superiority in credit card industry and brand superiority in grocery store industry. Even though they are different in both industries, only certain drivers, i.e. the highest effects of top brand, in each industry have significant effect. In summary, all of our hypotheses are supported and partially supported as shown in Table 16.

The differences of certain drivers that show significant negative effects on competing brand's SOW across industry can be potential explained by the followings. In credit card industry, the results show that only value superiority has a negative effect on SOW of other competitive brands. Past studies found that convenience, easiness, and safety are main factors influencing credit card usage (Jones, 1989; Mayer, 1997; Safakli, 2007). Morgan (1992) stated that promotions (i.e., relationship instruments in this study) do not work as well as "price, price, and credit line" and APR (i.e., interest rate). And credit lines are most critical to credit card users. It is value that customers would be used to make a decision when using the card, such as lower interest rate, better service quality of call center, more convenience in payment methods, and more store coverage. Those factors are value superiority in this study.

TABLE 16

SUMMARY OF HYPOTHESES TESTING RESULTS

Hypothesis	Descriptions	Results	
		Credit Card	**Grocery Store**
H1	Value superiority has a positive effect on brand's future SOW	Supported	Supported
H2	Brand superiority has a positive effect on brand's future SOW	Supported	Supported
H3	Relationship Instruments has a positive effect on brand's future SOW	Supported	Supported
H4	Value superiority, brand superiority, and relationship instruments of top brand have negative effects on adjacent brand's future SOW	Partially Supported	Partially Supported
H5	Value superiority, brand superiority, and relationship instruments of adjacent brand have negative effects on top brand's future SOW	Partially Supported	Partially Supported

Meanwhile, brand superiority in credit card industry seems to be the most important thing to acquire new cardholder (Chain Store Age, 2007). For example, Guangdong Development Bank (GDB) and United Overseas Bank (UOB) launched a Lady's credit card in Hong Kong (Lee, 2003). These cards introduce a credit card specifically for women who enjoy a successful career, pursue a high quality of life and are sensitive to fashion trends. In Thailand, Krungthai Credit Card (KTC) has many types of credit card based on customer lifestyles, e.g., KTC diving visa platinum and KTC travel visa platinum. Co-branding is another one of brand strategies that aim to acquire new cardholder. Co-branding is providing card issuers the most traction (Bramlette, 2008; Horne & Worthington, 1999; Worthington, 2001).

They stated that issuers are creating relationships with retailers and sports teams to acquire cardholders and if a consumer already has an interest in the partner, they are more likely to apply that card. For instance, American Express (AMEX) positions itself to be a premium brand in the industry. They use such as co-branding strategy with premium car, BMW, to show the similar premium lifestyle. This strategy is also used by Kasikorn credit card that co-brands with Mercedes-Benz. Once the customers apply and are members of credit card, brand superiority seem to be overlooked and less important. Hence, it shows insignificant effect on the competing brands.

In addition, the results show that relationship instruments insignificant influence future SOW of the competing brand in both industries. For an explanation of this, there are many empirical evidences that challenge the efficacy of relationship instruments. They express doubts about their benefits and suggest that in a competitive market, good instruments will be imitated (Benavent et al., 2000; Dowling & Uncles, 1997; Leenheer et al., 2003; Sharp, B. & A. Sharp, 1997). These relationship instruments are much more easier to imitate than value superiority and brand superiority. Once one brand launches a new successful initiative program, others will follow. And in the end, the result will be a return to the initial situation, as well as SOW. Meyer-Warrden (2007), for example, found that the features of all loyalty systems of grocery stores in a city in France are similar. Some also contend that it is difficult to change established behavioral patterns with the type of reward systems that are prevalent today (Magi, 2003; Meyer-Waarden, 2006; Meyer-Waarden & Benavent, 2006). Thus, relationship instruments seem to be less important than the other factors and showed insignificant effect on competing brand's SOW.

For grocery store customers, brand superiority is an only driver negatively influencing the other brand's SOW. Although value superiority is a very important basis factor for grocery store (e.g., Koelemeijer & Oppewal, 1999; Harmon & Hill, 2003), brand superiority also plays a major role nowadays (e.g., Ailawadi & Keller, 2004; Porter & Claycomb, 1997). Branding and brand management are applicable to retail brands, e.g., retail and store image, perceived retail brand association, as well as to retail brand equity measurement (Ailawadi & Keller, 2004). Randall (2000)

mentioned the concept of brand in retailing that “They have a very strong identity in their customers' minds...They have their core values, expressed in everything they do: their range and assortment of goods, the design and layout of their stores, the quality and training of their staff – in a phrase, the total service they deliver.” Additionally, one director of Tesco said that "the shop itself, its location, its atmosphere, the service it offers and the range of goods and prices can become the Brand" (Murphy, 1990). Once this strong identity (i.e., from value superiority) is settled in customer’s minds, it seems that an outstanding factor for them is brand superiority. It seems that brand is a strong proxy for customers when making purchase decision.

Moreover, brand superiority is also an important factor in Thai market. For example, Tesco applies various brand formats to capture targeted customers, e.g., Tesco Lotus Value, Talad Lotus, Plus Shopping Mall (Marketeer Magazine, March 2009). Different store formats mean different store images (Ho, 2008). Carrefour (Thailand) also uses branding strategy in the concept of “everything-under-one-roof”. Therefore, in grocery store industry, brand superiority becomes more and more important factors in this multi-brand-relationship environment. This is a potential explanation for non-significant effect of value superiority on the other brand’s SOW. However, the logical reasons for this non-significant effect are still not so explicit and it should be focused and tested in future study to clarify our understanding. And the potential explanation for the less important of relationship instruments in grocery store industry is similar to the credit card industry.

For overall conclusion of our findings, first we find the support of the past work and our framework that even customers have relationship with multiple brands but top two brands accounted for more than 90% of SOW. Moreover, on average, top brand gains two times SOW of adjacent brand. Non-brand, brand, and relationship instruments drivers in both separated and integrated models affect future SOW. The results show that only certain drivers showed negative effects on competitive brand’s future SOW in the integrated model. And that certain drivers are different across the industry, i.e., credit card and grocery store industry. Moreover, the pattern of effects,

i.e., the relative important of drivers, between top brand and adjacent brands in both industries are shown to be different.

Our study presents the successful integrated SOW model by taking into account the competitive effects in multi-brand-relationship environment. Research results are reported in this chapter. Result of future SOW shows what we expected. Measurement model shows a good fit and our measurement items and constructs are reliable and valid. Structural model is then tested and the results illustrate a very good fit between proposed model and the sample data. Three hypotheses are fully supported and two of them are partially supported. The potential explanation is discussed for the partial supported results. In the next chapter, the theoretical contributions and the managerial implications are then developed based on these findings. Limitations and further researches are also discussed in the next chapter.