

## **Chapter 6**

### **Discussions, Limitations, Implications, and Conclusions**

#### **6.1 Introduction**

Chapter 6 begins with discussions of data analysis results presented in Chapter 5, followed by limitations on research design and their effects on generalizability. Chapter 6 then discusses academic and managerial implications of this research and directions these implications suggest for future research. The chapter ends with conclusions of this dissertation.

#### **6.2 Discussions of Data Analysis Results**

This section discusses data analysis results presented in Chapter 5, organized as responses to the study's three research questions. Results are interpreted from the perspectives of relevant bodies of literature in self-concept, self-concept variables of interest, and market segmentation.

This dissertation began by raising three research questions of central concern to the context of the present investigation, the market for breast enlargement in Bangkok:

Q1: Can valid segments of female university students be formed on the basis of context dependent motivational variables directly related to self-concept?

Q2: Given the existence of meaningful segments of female university students in the market for breast enlargement, can segments be differentiated in terms of the proposed set of self-concept variables?

Q3: Given the existence of meaningful segments of female university students in the market for breast enlargement, what characteristics describe the segment most likely and least likely to pursue breast enlargement?

With the application of a three-step clustering approach suggested by Singh (1990), the three research questions have been systematically addressed, as demonstrated in Chapter 5. The following subsections review and discuss results related to each research question.

### **6.2.1 Discovery of Context Dependent Motivational-Based Segments**

Regarding Research Question 1, using the combined self-drive measure (a combination of respondents' desirable incremental cup sizes compared with their current cup sizes and the extent to which the decision to enlarge breasts is based on a desire to please oneself) as the basis for segmentation, five segments were derived using a sequence of clustering procedures. The procedures addressed common criticisms over the validity of clustering results (e.g., Hair Jr. *et al.* 1998) by establishing both internal and external validity. Internal validity was established through a combination of hierarchical and non-hierarchical cluster analyses and assessed based on the derived cluster solution's stability and reproducibility. External validity was established by comparing the five segments to the respondents' past enlargement experience and to their behavioral intention to pursue enlargement surgery. From both internal and external validity tests, it can be concluded that the five segments exist on the basis of consumer motivations and that these segments were not generated by chance. The five segments are identified as: status quos, passives, keen pursuers, active searchers, and prospects.

External validity test results are particularly noteworthy. The five derived segments were found to differ both in terms of the respondents' past enlargement experience ( $\chi^2 = 23.6, p < 0.001$ ) and behavioral intention to pursue breast enlargement surgery ( $\chi^2 = 14.51, p < 0.01$ ). These results indicate that, to the extent that past enlargement experience and intention to undergo surgery are concerned, the derived five-cluster solution is practically valid.

Specifically, the cluster with the highest value of *IADPO* (the multiplicative effect of two clustering variables) was expected to witness the largest proportion of respondents with both past enlargement experience and intention to undergo enlargement surgery, followed by the cluster with the next highest value of *IADPO*, and so on. With regard to past enlargement experience, results were entirely consistent with expectations (see Section 5.6).

A few issues regarding past enlargement experience are noteworthy. First, past enlargement experience in the present study was not limited to any particular breast enlargement procedure. Respondents were free to think of any enlargement experiences they had had in the past, whether it was an established procedure such as implant surgery, one or more temporarily effective methods such as silicone pads or special bras, or time-consuming methods such as herbal creams and herbal pills. Second, among individuals with enlargement experiences, those experiencing ineffective methods were more likely to try several alternatives in the past, whereas those satisfied with a method may have had only a single successful experience. The study, however, treats all people with enlargement experience—whether single or multiple—on an equal basis. In other words, whether or not an individual had only one single effective experience or many ineffective experiences, all were treated equally, with each individual receiving one count when calculating the percentage of respondents with enlargement experience.

Thus, the percentage of respondents with enlargement experience reflects the proportion of members in each segment who had at least one past enlargement experience and has no implications or hints that would suggest ineffectiveness of any particular breast enlargement procedure. However, the fact that the highest percentage of past enlargement experience (46.4 percent) occurred in the keen pursuers group—where the average ideal-actual

discrepancy is more than two cup sizes larger and the average intention to undergo breast enlargement surgery is almost twice that of the next highest segment (Table 5.13)—suggests that these procedures as a group were ineffective.

Results regarding intention to undergo enlargement surgery were mostly consistent with expectations, with the only exception being the somewhat high proportion of respondents with intention to undergo surgery in the passives segment. Although surgery involves considerable financial and psychological risk, it yields the most reliable outcome compared with other available choices such as massage creams or herbal pills. A *post hoc* analysis revealed that passives were remarkably different from keen pursuers with regard to openness to experience, one of the substantive self-concept variables that distinguishes the two segments from each other (see Subsection 5.8.2, Table 5.24). One possible explanation for this unexpected result could be that passives, more conventional and preferring the more familiar rather than something new, might prefer surgery because it yields a reliable outcome. Keen pursuers, with a relatively high degree of openness to experience and willingness to consider new ideas, might be tempted to experiment with surgery because it is unique among enlargement activities and yields immediate change. An in-depth follow-up study would be needed to identify possible causes underlying passives' unexpectedly high rate of intention to undergo surgery. Such a study could identify the passives segment in a manner similar to that applied here and proceed to use qualitative research methods to examine possible causes.

Preceding results suggest that the five-cluster solution indeed reflects differences in actual behaviors and behavioral intentions. Correspondence between the cluster solution and actual behaviors is especially noteworthy in view of the fact that behaviors represent actions taken for a specific past episode and that behavioral intentions are tendencies for a future, similar

action. Thus, the five clusters uncovered in this study appear to be a reasonably valid solution.

The overall derived segment characteristics are noteworthy. Referring to Table 5.19, those who perceive breast enlargement for the purpose of pleasing oneself as somewhat important to strongly important (respondents in keen pursuers, active searchers, and prospects segments) account for 72.5 percent of all respondents surveyed. This result reflects a predominantly positive view that young urban female university students have toward breast enlargement as a way to please oneself, a self-oriented motivation. While positive perceptions toward breast enlargement dominate at 72.5 percent, the proportion of respondents who actually reported ideal-actual size discrepancies is much lower at 29.9 percent. This seems to be an inconsistency, because positive perceptions toward breast enlargement should be commensurate with reported ideal-actual discrepancies. The inflated positive view toward breast enlargement seems to reflect an inclination in favor of breast enlargement when in fact these women may not really need it. Prospects, the largest segment, account for more than half of this tendency.

In contrast, those who perceive breast enlargement for the purpose of pleasing themselves as unimportant (respondents in passives segment) account for only 10.7 percent of respondents. While groups perceiving breast enlargement as a way to please oneself as important (keen pursuers, active searchers, prospects) exhibit high degrees of hedonic values of excitement and fun and enjoyment, the group perceiving breast enlargement as a way to please oneself as unimportant (passives) has exceedingly low scores on extraversion, excitement, and fun and enjoyment. Given that extraversion, excitement, and fun and enjoyment are conceptually related and can be construed to represent hedonism, it can be said that the keen pursuers,

active searchers, and prospects groups differ from the passives group on the hedonic aspect of the self-concept. In fact, by focusing on the relationship between segment sizes and segment characteristics, the above discussion provides an additional perspective into the interpretation of segments already made in Chapter 5.

Differences among the five segments found in this study can be more fully understood by considering the substantive discriminating self-concept variables.

**Table 6.1 Summary of Substantive Discriminating Self-Concept Variables**

Self-Concept Variables	Five Segments*	Keen Pursuers versus All Others Segments Combined	Keen Pursuers versus Passives
Self-Esteem			
Extraversion	3 (0.496)		5 (0.337)
Openness to Experience	6 (0.301)	3 (0.457)	2 (0.569)
Excitement	5 (0.364)		
Fun and Enjoyment	2 (0.505)		
Physical Vanity	1 (0.850)	1 (0.849)	1 (0.850)
Achievement Vanity	7 (0.294)	4 (0.432)	3 (0.412)
Being Well-Respected		2 (0.460)	6 (0.313)
Self-Fulfillment	4 (0.369)	5 (0.340)	4 (0.387)

\*Displays only Discriminant Function 1.

Numbers indicate ranked structure loadings in terms of discriminating values for each self-concept variable. Numbers in parentheses indicate structure loadings. All structure loadings are significant at  $p < 0.01$  level.

Referring to results presented in Tables 5.16, 5.21, and 5.24, Table 6.1 presents substantive discriminating self-concept variables in three different cases: all five segments, keen pursuers versus other segments combined, and keen pursuers versus passives. Structure loadings are described by rank order, with numbers in parentheses indicating their discriminating values. Table 6.1 reveals some interesting findings. First, physical vanity is the best discriminating self-concept variable across all three cases. Physical vanity not only contributes substantially to the separation of keen pursuers, as in the two cases of two-segment comparisons, it also plays an important role in discriminating among all five segments. This should not be surprising given that the context under study focuses on physical attractiveness. Physical

vanity involves concern (often excessive) over one's physical appearance. High physical vanity scores also suggest a high association of the self with the body.

Past research shows that physical vanity has physical appearance implications. In the present study, physical vanity was shown to contribute substantially to the isolation of the segment with the largest (combined) self-drive from the other segments, as well as to the discrimination of segments with differing degrees of self-drive. Results are consistent with Netemeyer, Burton, and Lichtenstein's (1995) study which found positive correlations between physical vanity and variables indicating concern over physical appearance such as public body consciousness and consideration for cosmetic surgery.

Second, the structural compositions of the substantive discriminating self-concept variables on the two cases of two-segment comparisons are quite similar. As shown in Table 6.1, both cases see substantive differences in openness to experience, physical vanity, achievement vanity, being well-respected, and self-fulfillment. Extraversion also was found to be another substantive discriminating self-concept variable in the case of keen pursuers versus passives. This suggests two implications. First, consistent structural compositions of self-concept variables in both cases of two-segment comparisons imply that keen pursuers are a relatively stable segment. In fact, this observation again confirms the cluster stability illustrated in Chapter 5. Second, three substantive discriminating self-concept variables—physical vanity, achievement vanity, and self-fulfillment—can trace their conceptual roots back to materialism or can be shown empirically to be correlated with materialism. For example, materialism is considered a behavioral manifestation of vanity (Netemeyer, Burton, and Lichtenstein 1995). Self-fulfillment was found to be positively correlated with achievement vanity (Netemeyer, Burton, and Lichtenstein 1995), again tracing the concept's root back to

materialism. The fact that keen pursuers can be discriminated on the basis of these three self-concept variables implies that keen pursuers are to some extent related to materialism.

Third, six of the seven substantive discriminating self-concept variables in the five-segment case can be grouped broadly into two categories: those associated with hedonic aspects (extraversion, excitement, and fun and enjoyment) and those associated with materialistic aspects (physical vanity, achievement vanity, and self-fulfillment) of the self-concept. This implies that the progression from passives to keen pursuers (in an ascending order of *IADPO* scores) finds the degrees of hedonism and materialism to increase as a function of the combined self-drive (*IADPO* scores; see Table 5.19). In sum, keen pursuers can be considered to be a segment particularly high in both hedonic and materialistic aspects of the self-concept.

### **6.2.2 The Proposed Set of Self-Concept Variables as Discriminating Variables**

The present study's Research Question 2 is: Given the existence of meaningful segments of female university students in this context, can segments be differentiated in terms of the proposed set of self-concept variables? Results obtained from MANOVA tests in all three cases—five-segment, keen pursuers versus other segments combined, and keen pursuers versus passives—support a positive answer to Research Question 2. That is, distinctions in terms of the proposed set of self-concept variables exist between segments.

A further examination of results in Table 5.16 reveals that self-concept conceptualized as segment discriminators in the breast enlargement market as studied here suggests a one or two dimensional nature. As can be seen in Table 5.16, although self-esteem has a high structure loading on Discriminant Function 2, Function 2 itself is not close to being



significant ( $p < 0.581$ ; see Table 5.15). The self-concept would have exhibited a two dimensional nature if self-esteem had been significant with respect to Discriminant Function 2. Of course, a test conducted on the population of respondents used in the present study would find Function 2 to be significant, if sample size were simply larger. Further, a test conducted on other more heterogeneous populations also should yield results that would confirm or reject the one dimensional hypothesis, depending on whether Discriminant Function 2 would yield a significant result.

Because Discriminant Function 1 extracts the most variance among all discriminant functions, self-concept variables associated with Function 1 play the major role in discriminating among segments. In addition, all substantive discriminators belonging to Discriminant Function 1 should represent a group of self-concept variables that can be tied under one single dimension and that have different discriminating qualities from other groups (or dimensions) of self-concept variables. As noted in Chapter 5, nine out of nine self-concept variables are significantly associated with Discriminant Function 1. Seven out of nine self-concept variables (see Table 5.16) qualify as substantive discriminators by meeting the  $\pm 0.30$ -or-higher rule of thumb. Furthermore, Discriminant Function 1 was the only significant discriminant function, indicating that substantive discriminators concentrate under a single common dimension. However, an analysis of restriction in range (see Section 6.3) reveals that both self-esteem and being well-respected, the two self-concept variables with structure loadings of less than 0.30, would have met the  $\pm 0.30$ -or-higher rule of thumb if corrected for range restriction (see Appendix 5). These corrected results are consistent with the one dimensional nature of self-concept. However, whether or not the self-concept would include self-esteem and being well-respected in this single dimension is unclear. Further studies are needed in order to answer this question.

### **6.2.3 Identification of Substantive Discriminating Self-Concept Variables**

The present study's Research Question 3 is: Given the existence of meaningful segments of female university students in this research context, what characteristics describe the segments most likely and least likely to pursue breast enlargement? Research Question 3 concerns identification of substantive discriminating self-concept variables that separate keen pursuers well from other segments. Eighteen hypothesized directional relationships between self-concept variables and respective discriminant function *Z* scores were tested to assess the ability of each self-concept variable to discriminate keen pursuers from other segments combined and from the passives segment alone. Results show that sixteen of the eighteen hypothesized relationships are supported.

For example, physical vanity significantly discriminated keen pursuers from other segments combined and from the passives segment (Hypotheses 8a and 8b; see Tables 5.21 and 5.24). In addition, with the exceptions of achievement vanity and being well-respected, structure loadings for the case of keen pursuers versus other segments combined are smaller than the case of keen pursuers versus passives. These results indicate that extraversion, openness to experience, excitement, fun and enjoyment, physical vanity, and self-fulfillment were weaker predictors (when judged by the absolute values of structure loadings) of group membership between keen pursuers versus other segments combined than between keen pursuers versus passives. This result should be expected, given the extreme nature of the keen pursuers and passives segments.

Three explanations are possible regarding results for self-esteem noted for tests of Hypotheses 7a and 7b. First, breast size may be conceptually unrelated to a woman's sense

of self-worth and Hypotheses 7a and 7b are suitably insignificant. Indeed, breast enlargement activities concern only the self-enhancement aspect of self-esteem (that emphasizes the growth, expansion, and increase of one's self-worth) and not the self-maintenance aspect (that emphasizes keeping what one already has). Thus, breast enlargement activities would be expected to affect only a part of a woman's sense of self-worth. Further, as measured in this study, self-esteem reflects beliefs that the respondent is a person of worth on an equal basis with others, a person who has something to be proud of, a person who has self-respect, and a person who seldom if ever feels useless. These beliefs have numerous influences beyond breast size.

Second, breast size may be conceptually related to a woman's sense of self-esteem but only for women who believe that breast size is important. That is, the construct of self-esteem may be relevant only to the extent that one perceives the attribute under consideration to be important. If a woman considers a large breast size to be of little importance, her self-esteem will be little affected by her perceptions of her breast size. The woman instead will base her self-esteem on her ability "to be academically able, to have a happy family life, to gain respect from others, or to have a desirable personality" (Hattie 1992, p. 55). This indicates the possibility that importance of breast size may moderate relationships posited in Hypotheses 7a and 7b.

Third, it is tempting to attribute the small values for structure loadings and simple correlations for self-esteem in Tables 5.21 and 5.24 and accompanying lack of significance to the low reliability of the self-esteem measure. Cronbach's alpha coefficient for self-esteem was only 0.56, much lower than the average value of 0.68 for the other constructs examined in the present study. However, corrections for unreliability (i.e., calculations of true

correlations after unreliability has been accounted for (Roth *et al.* 1996) reveal that the low Cronbach's coefficient value for self-esteem had little impact on the small values of the structure loadings and simple correlations for self-esteem. To illustrate, correlations between self-esteem (as independent variable) and group assignment (as dependent variable) improve only slightly after the unreliability of self-esteem has been accounted for. Specifically, the upper bound for the corrected correlation (assuming that reliability for group assignment is the same as the reliability of self-esteem) was 0.093, for the case of keen pursuers versus passives, whereas the lower bound (assuming perfect reliability for group assignment) was 0.069. Both the upper and lower bounds show only small increases from the original simple correlation of 0.052 shown in Table 5.24. Correction for unreliability saw even smaller increases in the case of keen pursuers versus all other segments combined, improving from the original correlation of 0.003 to 0.004 for the lower bound and to 0.005 for the upper bound. Given that group assignment is unlikely to yield a reliability coefficient as low as 0.56, the upper bounds of the corrected correlations are unlikely to actually occur. These results suggest that the low reliability of self-esteem is unlikely to be the cause of the lack of discriminability of self-esteem in separating keen pursuers from other segments combined and from the passives segment. The two explanations mentioned earlier should be more viable accounts for the unexpected hypothesis testing results of self-esteem.

### **6.3 Research Limitations**

Although this dissertation's primary objective to identify meaningful segments within a particular population of interest has been achieved, three research limitations are noteworthy.

The first research limitation concerns generalizability of results from the population under study to other populations. The population under study was identified in Chapter 4 as Thai

female undergraduate and graduate students in Bangkok in 2002 and 2003; the sampling frame consisted of Thai female students enrolled at Chulalongkorn University, Srinakharinwirot University, and Thammasat University in 2002 and 2003. Results may not extend to similar populations in other cultures because of the Thai cultural background of respondents. Specifically, Thai people tend to value collectivism, autonomy, present orientation, future orientation, non-competitiveness, and fun and enjoyment (sanuk) as core cultural beliefs (among others). It is possible that one or more of these core cultural beliefs moderate relationships in Tables 5.16, 5.21, and 5.24. For example, the structure loading for fun and enjoyment on Discriminant Function 1 in Table 5.16 is 0.505. This value may be lower in populations where fun and enjoyment is not a core cultural belief.

Results may not extend to the target market for breast enlargement in Thailand because respondents in the study may be somewhat younger, better educated, and have smaller incomes than the target market. Again, these demographic variables may moderate the relationships in Tables 5.16, 5.21, and 5.24. For example, the younger studied sample may possess a higher degree of physical vanity than an older target market because the older women may have less concern about their physical appearance. Differences in age between the studied sample and an older target market might result in the relationship between physical vanity and discriminant score being larger in the studied sample than in the target market. In contrast, the better-educated sample may possess a lower degree of physical vanity than the lower-educated target market because the former may have more economic and social capital that need not necessarily be compensated by physical capital. Again, differences in education level between the studied sample and the target market might result in the relationship between physical vanity and discriminant score being smaller in the studied sample than in the target market. These two examples suggest that moderated

relationships may exist with regard to demographic variables. Therefore, the moderating effects of these demographic variables may limit the generalizability of results to the target market.

Reflecting the homogeneity of the studied sample, the study's second limitation involves overrepresentation of well-educated, low-to-middle income, and unmarried individuals in comparison to the population at large. In addition, although a systematic effort was taken to collect data from diverse student backgrounds, bias occurred in which business students were oversampled, leaving limited representation of students from other backgrounds such as the sciences or the humanities. These biases will produce a "restriction in range" consequence where observed relationships are always smaller than true relationships.

To estimate differences between observed and true relationships, a correction procedure was used from the formulas shown below:

$$r_{corrected} = \frac{r_{observed}}{c}, \text{ where}$$

$$c = \sqrt{u^2 + (1 - u^2)r_{observed}^2}, \text{ and}$$

$$u = \text{observed standard deviation} / \text{true standard deviation}.$$

Using the typical ratio between observed standard deviation and true standard deviation of  $u = 0.70$  (Roth *et al.* 1996), corrected correlation values of 0.41, 0.64, and 0.81 were obtained for typical observed correlation values of 0.30, 0.50, and 0.70 in Tables 5.16, 5.21 and 5.24. Corrected values represent increases of approximately 37, 27, and 16 percent, respectively. Of particular interest is the pattern of differences. Differences between observed relationships and true relationships are highest for correlations that are originally low and

lowest for already high correlations. For example, while the correlation for excitement for the case of keen pursuers versus passives in Appendix 5 indicated an increase of 38 percent, physical vanity witnessed an increase of only 7 percent. Noteworthy also is the fact that correlations of excitement and fun and enjoyment in the case of keen pursuers versus passives exceeded 0.30 after correction (see Table 5.24 and Appendix 5). This suggests that excitement and fun and enjoyment would have been described as substantive self-concept variables discriminating between keen pursuers and passives had there been no restriction in range. Similarly, self-esteem and being well-respected would have been identified as substantive self-concept variables in the case of five-segment analysis (see Table 5.16 and Appendix 5).

The third limitation of this study concerns its narrow focus on breasts as representing a woman's physical attractiveness. That is, the present study can be criticized as focusing narrowly on one particular body part instead of evaluating various body parts in an interrelated fashion. Research on other parts of a woman's body may or may not replicate in a similar way found in this research. Also, it should be noted that breasts are not the only body part salient to overall body image evaluation; to a large extent the balance between all parts of the body considered to be representations of women's physical appeal can be as salient or even more salient to the general body image assessment. For example, body, breast, and WHR sizes were found to interactively influence judgments of attractiveness and femininity (Furnham, Dias, and McClelland 1998).

## **6.4 Implications**

This section discusses academic and managerial implications made by the present study. Specifically, discussion is focused on how findings from the present study contribute to

academic knowledge as well as to managerial practice. The section ends by suggesting some possible future research directions.

#### **6.4.1 Academic Implications**

The present study suggests academic implications in terms of contributions to knowledge in three areas. The first contribution involves identification of segments in the market for breast enlargement. The present study identified five segments with differing levels of combined self-drive toward breast enlargement. These five segments then were described in terms of psychological characteristics related to self-concept. Of particular interest among identified segments is the most self-motivated segment, keen pursuers. Keen pursuers are highly motivated by their perceived discrepancies between desirable cup sizes from their current sizes (ideal-actual discrepancy) and the extent to which the decision to enlarge breasts is based on the desire to please oneself (self-oriented motivation). Keen pursuers were found to differ from all other segments combined and from the passives segment in terms of all self-concept characteristics examined in this study, except for self-esteem. Keen pursers differed substantially from other segments combined in terms of physical vanity, being well-respected, openness to experience, achievement vanity, and self-fulfillment (see Table 6.1). Moreover, in addition to these five self-concept characteristics, keen pursuers differed substantially from passives in terms of extraversion. These findings underscore the highly motivated nature of keen pursuers and highlight the self-concept characteristics examined in this study (except for self-esteem) that characterize keen pursuers in relation to other derived segments.

The second contribution of this study to academic research concerns the reconceptualization of self-concept and its application to a segmentation problem. To illustrate, the present study introduced a reconceptualized self-concept based on values, personality traits, and motives to



describe and explain segments in the market for breast enlargement based on differing degrees of combined self-drive. The reconceptualized self-concept represents a multidimensional model that includes both an evaluative aspect (self-as-object) and an action-influencing aspect (self-as-subject). The conceptualization of self-concept as both self-as-object and self-as-subject extends traditional practices of research in physical attractiveness that emphasize only the evaluative aspect of self-concept.

Research has shown that the evaluative aspect is indispensable to self-concept. When faced with situations in which decisions must be made or actions taken, the self exercises reflexive consciousness by making self-evaluation (self-as-object), reflecting back to itself in search of self-relevant information. Therefore, the evaluative aspect is an indispensable part of self-concept. However, in addition to the evaluative aspect of the construct, self-concept is conceptualized here as having a decision-influencing and action-influencing aspect, through which the self acts as agent or origin of its actions.

This reconceptualization of self-concept has two implications for the application of self-concept to explain market segments. First, a self-concept conceptualized by adding dimensions that have action-influencing aspects is considered appropriate for explaining segments formed by context-specific motivations as its segmentation bases (such as ideal-actual discrepancy and self-oriented motivation for this study). As motivations to pursue physical attractiveness vary across research contexts, it is thus difficult to compare different sets of characteristics of subjects across different studies. An application of a self-concept conceptualized similarly to that of this study would help to identify segment characteristics that would otherwise be impossible by using only context-specific motivations; segment characteristics identified by a common self-concept measure can be compared across studies.

Second, as the conceptualized self-concept included values, personality traits, and motives dimensions, segment characteristics can be explained not only by enduring goals (values), as in traditional value segmentation studies, but also by enduring dispositions (personality traits), and by needs and drives (motives) specific to the particular context under study. Supporting this statement, average discriminant function coefficients for values, personality traits, and motives in this study (calculated from Discriminant Function 1 in Table 5.16 and data in Tables 5.21 and 5.24) are 0.31, 0.39, and 0.44, respectively. However, if self-esteem were excluded, the average discriminant function coefficient of the remaining self-concept variables for the motives dimension (physical vanity and achievement vanity) would rise from 0.44 to 0.61, the highest among the three dimensions. A high value of average discriminant function coefficient in the motives dimension reflects and corresponds well to the fact that the segments were originally derived on the basis of consumer motivations.

Indeed, the present study's Research Question 2 can be viewed as a *post hoc* approach to profiling respondents by hypothesizing that people with different motivations have different characteristics of self-concept as represented by the nine self-concept variables. In fact, Research Question 2 was approached from a *post hoc* point of view to identify sources of individual variance (e.g., Hirschman and Holbrook 1982), in which consumers having certain levels of combined self-drive motivation (as measured by ideal-actual discrepancy and self-oriented motivation) were profiled according to their discriminating self-concept variables. For example, women having an extreme perception regarding their desirable incremental cup sizes and their self-oriented motivation to pursue breast enlargement were perceived as having substantially more physical vanity, being well-respected, openness to experience, achievement vanity, and self-fulfillment than women having less extreme perceptions and self-oriented motivations.

In this capacity, self-concept can be thought of as a segmentation variable, assigning respondents to different groups based on respondents' different psychological characteristics as represented by self-concept. That is, instead of applying self-concept as a profiling dependent variable, as this study has done, self-concept also should be qualified to be used directly as an independent segmentation variable for classifying respondents. This would extend values segmentation studies (e.g., Beatty, Kahle, and Homer 1991; Kahle and Kennedy 1989; Kamakura and Novak 1992) to include personality traits and motives dimensions. Although conceptually more abstract than values, self-concept might be appropriate as segmenting variables in a demographically homogenous market.

The potential use of self-concept as a segmentation basis may be supported by empirical results of this study in Chapter 5. Results presented in Chapter 5 suggest robust discriminability among the five segments (see Tables 5.15 and 5.16) and in the two cases of two-segment analysis (Tables 5.20, 5.21 and 5.23, 5.24) in terms of the nine self-concept variables. These results suggest that these segments differ on the nine self-concept variables, and thus can be described fairly well in terms of the proposed set of nine self-concept variables.

In summary, the reconceptualized self-concept operationalized in this study helped to explain motivational-based segments of a demographically homogenous population. The self-concept itself also can be used as a segmentation basis that classifies people based on different levels of values, personality traits, and motives.

The third contribution of this study to academic research involves the application of a rating approach to replace the top-ranked, single most important value approach as a measurement instrument for values. Rating has more useful statistical properties and reduces measurement error that usually accompanies the top-ranked, single most important value method, traditionally used in values segmentation studies. Rating does not force respondents to discriminate among equally important values. Rating is more accurate than ranking in capturing how values enter into situations of behavioral choice: people do not necessarily rank one value over another in action and may find quite different values to be equally compelling.

#### **6.4.2 Managerial Implications**

Results suggest managerial implications in four areas. First, segment structure obtained from the results provides a good general understanding of the composition of the segments in the target population of young urban female university students with respect to breast enlargement. Market information that can be obtained from results of this study includes the comparative size of each segment, the psychological predispositions of each segment, and major psychological characteristics (self-concept variables) that distinguish the one segment from another.

Such information could benefit many market stakeholders, including medical professionals, marketing professionals, and even young women themselves. For example, medical professionals can estimate the size of each segment and allocate appropriate resources to meet potential demand from the segment of interest. Medical professionals can measure the effectiveness of their breast enlargement procedures not just in terms of before and after measures of ideal-actual discrepancy but in terms of a set of psychologically relevant self-

concept variables. That is, the consequences of successful and unsuccessful breast enlargement activities are not just physical but psychological as well. Marketing professionals can use information on the estimated size of each segment and allocate budgets accordingly. Communication messages can be based on themes reflecting physical vanity, extraversion, fun and enjoyment, and other self-concept variables. Customer satisfaction in the form of before-after measures can be based on these variables as well. Finally, women in the target market for breast enlargement can understand themselves better in terms of these self-concept variables, whether they choose to pursue or not pursue breast enlargement activities.

Second, results may help public policy makers to identify segments most vulnerable to misleading ads and publicity in the marketplace. As shown earlier, prospects are the most vulnerable segment because they favor breast enlargement as a way to please themselves (as reflected by high scores on please oneself; see Table 5.19) when in fact they may not really need it (as reflected by almost non-existence of ideal-actual discrepancy; see Table 5.19). The larger scores of favorable perception toward breast enlargement as a way to please oneself than perceived ideal-actual discrepancy perhaps reflects a biased view of prospects in favor of breast enlargement. In addition, prospects are the largest segment, accounting for more than half of such bias. Because of segment size, prospects could be the target of exploitation caused by misleading ads that promise breast enlargement but do not deliver.

Third, it is important for a firm to identify market segments and draw upon its unique resources that can be utilized to meet demand in its targeted segment(s) in such a way that the process yields competitive advantage over its rivals. Clustering results from the present study showed that, even in a seemingly homogeneous population of urban female university

students, distinct segments exist for the breast enlargement market. These distinct segments differ in their degrees of motivation to pursue physical attractiveness, which eventually will lead to different degrees of segment demand. This implies that similar market segments for a specific product market can be identified in almost any targeted populations. Segments could differ not only in terms of psychological predispositions (as shown in this study), but also in terms of purchasing behaviors, usage rates, and benefits sought. The more complete and accurate the available information on consumers, the more effectively marketing managers can segment the market and reach those individuals who are most likely to be interested in the product, service, or idea being offered. Results from this study reinforce the idea that intra-industry demand for goods and services in an economy is inherently varied and fragmented (e.g., Hunt 1997; Hunt and Morgan 1995). Marketing managers in a firm, therefore, need to identify and understand segments in their targeted consumer market so that they can respond in ways that the firm reaches a position of sustainable advantage over its rivals, given the limited resources it possesses.

Fourth, combined with other segment information such as demographic profile, marketing managers can design complete marketing programs or limited advertising programs based on self-concept information to reach each segment. Segmentation on the basis of self-concept can be used as an extension to the traditional value segmentation. Marketing managers must discover how the product, service, or idea is perceived in the marketplace; they must ascertain whether the desired position of the product, service, or idea in each market segment is achieved. Information on consumers' self-concept can be important in this respect, because how a product is perceived can differ as a function of self-concept. For example, some products might reflect a more hedonic property than others. To segment the market and

position the product, service, or idea effectively, information on consumer self-concept is quite useful. Tying a product to self-concept can enhance a product's worth.

#### **6.4.3 Future Research Directions**

Several directions for future research should be pursued in order to fill the gaps found in the literature and to create a more complete understanding of the motivations and characteristics of women seeking physical attractiveness.

First, future research efforts could adopt values that reflect cultural dispositions of a given population into the self-concept model. For example, three substantive discriminating self-concept variables in this study—physical vanity, achievement vanity, and self-fulfillment—can trace their roots back to, or empirically shown by past research to be correlated with, materialism. As the global consumer culture becomes increasingly prevalent, materialism is becoming an even more widely held value. Materialism is generally considered to be a life value and a basis for many other values and traits. Thus, it would be of interest to observe the relationship between material values and young urban women's pursuit of physical attractiveness. Materialism could be incorporated into the Thai research context of other core cultural values such as the autonomous value or the present oriented value and relationships between materialism and these values investigated. An understanding of material values could contribute to a better understanding of the segment structure of young women pursuing physical attractiveness, particularly in an urban consumption environment.

Second, although the promising clustering results presented in this study support the use of self-concept as an extension of values in a segmentation problem, one must be aware that self-concept is among the core determinants of consumer behavior. Consequently, self-

concept is fairly remote from any particular decision made by the consumer, a decision that is more affected by other more immediate (but also less stable) environmental influences, such as price, sales promotions, exposure to advertising messages, and sales people. Future research efforts could take into account the relative effects of other more immediate influences, such as product attributes, product benefits, and consumer preferences. Means-end chains (Gutman 1982) offer one approach to integrating these immediate influences to the self-concept in a segmentation problem.

Third, two types of motivations underlying the pursuit of physical attractiveness were identified in the literature: self-driven and social-driven. The present study addressed the former type of motivation stimulated by the perceived discrepancy between ideal- and actual-self from one's own viewpoint. Lacking still are the perceptions of the self viewed from significant others. Indeed, studies show that social environment (often in the form of peer influence) has high impact in social comparison (e.g., Marsh and Parker 1984). Interviews conducted in this study confirmed this by showing that respondents having more frequent contacts with women with favorable breast enlargement surgical outcomes have more positive attitudes toward enlargement surgery than respondents who have less frequent contacts. It would be of interest to future studies to identify social-driven impacts in the form of the perceived discrepancy between ideal- and actual-self either from the viewpoint of significant others or of peers.

The suggested studies would answer an interesting question: Do young women pursue physical attractiveness because of social pressure to conform to beauty standards or do they pursue it for themselves? Researchers could identify the relative importance between social pressure and personal drive in stimulating the pursuit of physical attractiveness in young



women. This will not only contribute to a better understanding of consumer behavior but also will identify motivations leading to the pursuit of physical attractiveness. Studies of a similar kind also would assist policy makers in forming and directing public policies for body-related products and services.

Fourth, not only the causes, future studies also could focus on the consequences of the pursuit of physical attractiveness. Applying the concept of the body as physical capital (Bourdieu 1984), future research efforts could seek to understand how power, status, and other distinctive symbolic forms of physical capital are produced by improvements in physical attractiveness and are converted into economic capital and social capital (e.g., Bourdieu 1986). Also, it is of interest to consumer researchers to investigate whether a possible conversion of physical capital into other forms of capital leads in any way to the consumption of goods and services in general, and of beauty- and cosmetics-related products in particular.

Fifth, as the number of subjects excluded due to their smaller desirable breast sizes approximately was equal to ten percent ( $n = 69$ ) of the original sample size, breast reduction should be another avenue of interest to future research endeavor. It would be interesting to see whether the clustering results would represent the mirror image of those derived from the case of breast enlargement. Also, it would be of interest to discover which self-concept variable(s) would have an impact on differentiating the most likely segment from the least likely segment to pursue breast reduction.

## **6.5 Conclusions**

This dissertation concludes with the following three statements. First, self-concept serves as an adequate theoretical basis to study a marketing-related phenomenon based on physical

attractiveness. Because self-concept is closely linked to evaluations of self-relevant information and, based on these evaluations, to motivations that stimulate actions and behaviors, self-concept serves as a viable tool for understanding and explaining human behaviors. Self-concept can be defined, its dimensions selected on theoretical bases, and its constructs associated with each dimension of interest applied to match the definition and to reflect the contextual nature of the study.

Second, self-drive varies considerably across individuals; variability in self-drive identifies segments in the context of breast enlargement. This study has demonstrated that variability in self-drive can be attributed to discrepancies between desired end states and actual end states on the one hand, and the extent to which an individual considers the pursuit of physical attractiveness to be important, on the other. Self-drive is human's underlying needs that stimulate behaviors; the greater the disparity between a consumer's current situation and desired goals, the greater the motivational drive to act in order to satisfy these needs. Thus, it is legitimate to use self-drive as a basis for segmentation in the context of physical attractiveness in general, and in the context of breast enlargement in particular.

Third, self-concept is a viable basis to segment the market for breast enlargement and can be applied both to academic research as well as to managerial practices. Self-concept describes segments in the present research context of breast enlargement. Self-concept in the present study is conceptualized as a hypothetical construct consisting of three dimensions: values, personality traits, and motives, with each dimension including both an evaluative aspect and an action influencing aspect and each related conceptually to the pursuit of physical attractiveness. Segment characteristics can be explained by enduring goals (values), enduring

dispositions (personality traits), and needs and drives (motives) specific to the particular context under study.

## **6.6 Chapter Summary**

Chapter 6 begins with discussions of data analysis results presented in Chapter 5 in an order of research questions presented in Chapter 3. The discussions reinforce segment structure as discovered in Chapter 5. A further investigation reveals that the keen pursuers, active searchers, and prospects segments differ from the passives segment on the hedonic aspect of the self-concept. Physical vanity is the best discriminating self-concept variable across all three cases, contributing substantially to the separation of keen pursuers, as in the two cases of two-segment comparisons, and playing an important role in discriminating among all five segments.

Six of the seven substantive discriminating self-concept variables in the five-segment case can be grouped broadly into two categories: those associated with hedonic aspects (extraversion, excitement, and fun and enjoyment) and those associated with materialistic aspects (physical vanity, achievement vanity, and self-fulfillment) of the self-concept. In this sense, keen pursuers are a segment particularly high in both hedonic and materialistic aspects of the self-concept. A further examination of results reveals that self-concept conceptualized as segment discriminators in the breast enlargement market suggests a one or two dimensional nature.

Limitations on research design and their effects on generalizability are discussed. Three academic implications in the form of contributions to academic knowledge are noted: identification of segments in the market for breast enlargement; the reconceptualization of

self-concept and its application to a segmentation problem; the application of a rating approach in replace of the top-ranked, single most important value approach as a measurement instrument for values. Managerial implications are discussed from the viewpoints of stakeholders, firms competing in the market, marketing managers, and public policy makers. Four future research directions with respect to segmentation and physical attractiveness are proposed. Finally, three statements that summarize findings and contributions of the present study conclude this dissertation.