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Segmenting the Chinese Consumer Goods Market – A Hybrid Approach

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Abstract

Due to the economic liberalization processes and the ongoing opening of the Chinese economy for foreign trade and investment, which have been carried out since 1980, Chinese consumer goods markets have been transformed from sellers markets into buyers markets throughout the last years. In such markets, characterized by a surplus of supply and a strong competition between a large number of national as well as foreign suppliers, a company can only succeed if it pursues a strategy of market segmentation. i.e. adjusts its product and as far as possible some other elements of the marketing mix to the needs and wants of one or several selected market segments.

But up to now not only few but also rather inadequate empirical segmentation studies of these markets have been carried out and published. So, this book will present the results of a newer and better designed segmentation study of Chinese consumer goods markets. This study identifies and characterizes 12 market segments that are internally homogeneous and externally heterogeneous with regard to the product related needs and wants of their members. Moreover, it explains the possibilities of a segment specific tailoring of some other elements of the marketing mix. In that way it provides a valid and reliable informational basis for designing and pursuing a strategy of market segmentation in Chinese consumer goods markets.

Key Words

China; Consumer Goods Markets; Market Segmentation; Process Model of Market Segmentation; Hybrid Approach of Market Segmentation; Profile of Market Segments; Strategic Implications

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List of Abbreviations

AID:	Automatic Interaction Detector
AIO:	Activities, Interests and Opinions
AMA:	American Marketing Association
ANN:	Artificial Neuronal Networks
ANOVA:	Analysis of Variance
BMRB:	British Market Research Bureau
CART:	Classification And Regression Trees
CAPI:	Computer-Assisted Personal Interviewing
CATI:	Computer-Assisted Telephone Interviewing
CCGM:	Chinese Consumer Goods Markets
CCP:	Chinese Communist Party
CR:	Concentration Ratio
e.g.:	exempli gratia, for example
et al.:	et alii, and others
etc.:	et cetera, and so on
ETDZs:	Economic and Technical Department Zones
GDP:	Gross Domestic Production
ibid.:	ibidem, at the same place
i.e.:	id est, that is
KMO:	Kaiser-Meyer-Olkin Index
LOV:	List of Values
MDS:	Multidimensional Scaling
p.:	page
pp.:	pages
PPS:	Probability Proportional to its Size
PRC:	Peoples Republic of China
PSU:	Primary Sampling Unit
RPR:	Relative Penetrative Ratio
SEZs:	Special Economic Zones
SOE:	State-Owned Enterprises
TGI:	Target Group Index
WTO:	World Trade Organization

1 Introduction

In the 50 years since the pioneering article by *Wendell Smith*[1], market segmentation has become one of the most hotly debated and intensively pursued topics in the field of marketing.[2] Participants in the debate include practitioners and academicians as well as managers and researchers. Nevertheless, in spite of the popularity of the topic and its reportedly widespread acceptance by practitioners, it seems that the meaning of the concept of market segmentation remains rather vague and diffuse. A frequent misunderstanding is to equate the concept of market segmentation with the set of statistical techniques used for the identification of subgroups of customers, who respond in a similar way to a given marketing mix or who are otherwise useful for marketing planning purposes. For years, that has been the custom in the Anglo-American literature. The concept of market segmentation, however, may also be interpreted as a special marketing strategy.

Market segmentation as a strategy, which referred to as the strategies of *targeting* and *positioning* in the Anglo-American literature for several years now[3], may be defined as the adjustment of the product and as far as possible of some other elements of the marketing mix (e.g., the price, distribution or advertising) to more closely match the needs and wants of one or several selected market segments.[4] In other words, the identification of subgroups of customers, who share the same product-specific needs and wants (market segmentation interpreted as the splitting of a heterogeneous market into homogeneous sub markets) is a prerequisite for pursuing a strategy of market segmentation or to say, the strategies of targeting and positioning.

Tailoring the product and some other elements of the marketing mix to the needs and wants of selected market segments can offer competitive advantages to companies that practise this strategy. This became true in the mid-1950s, when *Smith* published his article in the *Journal of Marketing*[5], when many markets were became saturated and competition was fierce after a post-war decade of rapid growth. Companies serving the mass market with relatively undifferentiated products faced the prospect of slower growth and worse – some would go out of business.

Market segmentation caught on quickly – it was a way of life by the mid-1960s, guiding the product development, positioning and promotion strategies of many of the large Fortune 500 companies. It continued to gain steam throughout the final decades

[1] Smith, W. (1956).

[2] Engel, J.F. / Fiorillo, H.F. / Cayley, M.A. (1972); Frank, R.E. / Massy, W.F. / Wind, Y. (1972); Bauer, E. (1976); Bauer, E. (1977); Freter, H. (1983).

[3] Myers, J.H. (1996); Wedel, M. / Kamakura, W. (2001).

[4] Bauer, E. (2000), pp.2796-2797.

[5] Smith, W. (1956).

of the last century, spurring some to label market segmentation as one of the most important strategic concepts in marketing.[6]

By the 1990s, however, articles began appearing in journals questioning the effectiveness of market segmentation, and indeed it's very future.[7] With the advent of *"customization"* or *"one-to-one marketing"*[8] market segmentation seemed perhaps less useful. Fifteen years later, however, market segmentation continues to occupy a useful middle ground between mass marketing and one-to-one marketing.

Moreover, the concept of market segmentation is now becoming relevant in countries that have suffered from a lot of problems and shortages in the past, but are now experiencing an economic development equal to that of the western countries after World War II. In particular, due to the economic liberalization processes and the ongoing opening of the Chinese economy for foreign trade and investment, which have been carried out since 1980[9], this applies to the Peoples Republic of China.
As a result of these developments, the quantitative relationship between the consumer goods supply on the one hand and the rapidly rising consumer goods demand on the other hand has been continuously improved. Nowadays, the case that supply cannot satisfy demand is for most consumer goods a case of the past. Quite the opposite is to observe that Chinese consumer goods markets are buyers' markets, characterized by a surplus of supply and a strong competition between many national suppliers and almost 330.000 foreign suppliers offering products in this market.[10]

In combination with some political reforms[11] these economic reforms have also reduced the pressure to conformity in all areas of life. More and more Chinese consumers could generate differentiated product related needs and wants, and due to rapidly rising incomes, they also would be able to satisfy these needs and wants[12] if there would be an adequate product offering. That is not always the case, because in some Chinese consumer goods markets there are indeed no quantitative, but qualitative deficits of supply.

It follows that a company will hardly succeed in today's Chinese consumer goods markets if it pursues the strategy of undifferentiated mass marketing and tries to serve the needs of the entire market with a single marketing mix[13]. In fact, the changed mar-

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[6] Engel, J.F. / Fiorillo, H.F. / Cayley, M.A. (1972); Frank, R.E. / Massy, W.F. / Wind, Y. (1972).

[7] Peppers, D. / Rogers, M. (1993); Pine, B.J. (1993); Hart, C.H.L. (1995); Wind, Y.J. / Mahajan, V. / Gunther, R.E. (2002).

[8] Kotler, P. (2003), p.36-37.

[9] Bohnet, A. (1993); Spence, J.D. (1995); Nathan, A.J. (1997); Li, M.C. (1998); Groombridge, M.A. (2000); Lardy, N.R. (2002); Green, S. (2003); Liu, Y. (2005), pp.38-88.

[10] Liu, Y. (2005), pp.89-112.

[11] Spence, J.D. (1995); Liu, Y. (2005), pp.57-63.

[12] Jodice, D. / Bottomley, D. (2001).

[13] Kotler, P. (2003), pp.299-300; Brassington, F. / Pettit, S. (2005), pp.124-126.

keting environment makes it inevitable to pursue the strategy of market segmentation in the form of a differentiated or a concentrated marketing strategy.[14] A differentiated strategy of market segmentation (*multi-segment strategy*) involves the development of a number of individual marketing mixes, each of which serves a different market segment.[15] In contrast, a concentrated strategy of market segmentation (*single-segment strategy*) involves specialising in serving only one specific market segment.[16]

The realisation of such a marketing strategy requires not only the existence of a heterogeneous consumer goods market, but also the possibility to identify market segments which are internally homogeneous and externally heterogeneous with regard to the product related needs and wants of their members.[17] Chinese consumer goods markets meet the first condition very well, as explained above, but up to now very few empirical segmentation studies of these markets have been carried out and published, such as, the studies of *Ariga/Yasue/Wen*, *Sum*, *Wei*, *Schmitt*, *Cui*, *Cui/Liu* and *Ma*[18], published between 1997 and 2004.

Most of these studies suffer from some shortcomings, which limit their meaningfulness and therefore also their applicability as an information basis for strategic marketing decision making. Shortcomings are in particular:

1. the coverage of only a small number of urban regions,
2. the inclusion of only a few consumer characteristics, and
3. the low reliability and validity of the analysed survey data.

Therefore, after a short description of the general procedure for segmenting markets (chapter 2), a segmentation analysis of the Chinese consumer goods market will be presented (chapter 3), which is better suited for this purpose because it doesn't addresses the above mentioned shortcomings. This segmentation analysis was an essential part of the doctoral thesis of one of the authors.[19]

But beforehand, we would like to give special thanks to *Karen Sanders* for proof-reading the final version of this book.

[14] Ibid.

[15] Bauer, E. (1977), p.37; Dibb, S. / Simkin, L. (1996), p.16.

[16] Ibid.

[17] Bauer, E. (2002), p.3.

[18] Ariga, M. / Yasue, M. / Wen, G.X. (1997); Sum, Y.L. (1997); Wei, R. (1997); Cui, G. (1999); Schmitt, B. (1999); Cui, G. / Liu, Q. (2001); Ma, F. (2004):

[19] Liu, Y. (2005).

2 General Procedure for Segmenting Markets

2.1 Process Model of Market Segmentation

In spite of the dazzling array of possible approaches, most segmentation studies can be characterized by a common framework consisting of the following eight research steps[20]:

1. Define the relevant market.
2. Decide on segmentation approach.
3. Decide on segmentation (basis) and descriptor variables.
4. Design the survey.
5. Decide on data analysis methodology.
6. Collect data.
7. Apply methodology to identify market segments.
8. Profile/describe all segments by using basis and descriptor variables.

Once the market-segment opportunities have been identified, and the company seeks to pursue a strategy of market segmentation, two more strategic steps have to be made:

9. Decide how many and which market segments to be targeted,
10. Develop a marketing mix for each target segment.

This paper focuses on the first eight research steps of market segmentation, because the two remaining strategic steps, which translate the opportunities into marketing actions, are beyond the scope of this examination.

2.2 Step 1: Define the Relevant Market

Before market segmentation can take place, the relevant market has to be defined, meaning the product related, geographical and temporal boundaries of that market have to be fixed.[21] Any such definition has to look at the market through the consumers' eyes, because the consumer makes decisions based on the evaluation of alternatives and substitutes. It answers the following three questions: "What business are we in?", "Which are the relevant competitors, offering alternatives or substitutes to our product(s)?", "Which geographic region(s) are we covering?", and "Which period of the market is to be taken in the focus of the analysis?"

[20] Struhl, S.M. (1992); Myers, J.H. (1996)

[21] Croft, M.J. (1994), pp.13-17; McDonald, M. / Dunbar, I. (1998), pp.2-10; Masterson, R. / Pickton, D. (2004), p.92; Palmer, A. (2004), p.18; Brassington, F. / Pettit, S. (2005), p.123.

2.3 Step 2: Decide on Segmentation Approach

Three major approaches can be used in an effort to segment a market.[22] They include the *a-priori*, *a-posteriori* and *hybrid* approach. The selection of an approach depends on the objectives of the researcher in undertaking a segmentation study.

In *a-priori* (*predetermined*) market segmentation, the type (segmentation variables) and number of market segments are determined before data collection. With this approach, there are two main questions, namely the estimated sizes of these segments in the market place, and some relevant segment characteristics (*descriptor variables*). The use of this segmentation approach implies the existence of a "hunch", a highly developed body of theory, and/or past research that indicates how best to classify consumers for the purpose of further research.

A-priori market segmentation designates groups of customers who are similar in terms of segmentation variable(s) that are known or believed in advance to be related to consumption of a company's product, for example, demographics, purchase volume or geographic area. Segmentation variables are selected before analysis begins.

The principal advantage of the a-priori approach is that the researcher is less apt to be led astray by a purely spurious classification system that may arise if "the data were permitted to speak for itself," as is the case to a considerably greater degree when one uses a-posteriori approach. The main disadvantage of a-priori market segmentation is that one's prior convictions can act as a set of blinders more than as a guide to further study and understanding. In addition, regardless of the complexity of reality, human beings find it difficult to classify objects by more than three variables at a time. So, we are severely constrained by our own conceptual limitations if reality requires greater complexity (that is, a more elaborate multidimensional classification system).

In the *a-posteriori* (*post-hoc*, *natural* or *market defined*) approach of market segmentation, market segments are identified by forming groups of consumers that are internally homogeneous and externally heterogeneous along a set of measured consumer characteristics (*segmentation variables*). That is, a-posteriori market segments are based on responses of consumers that are available only after a survey has been conducted. The type and number, as well as the estimated sizes and characteristics of segments are not known in advance, but are determined by the data and methodology used to identify the market segments. The advantages of a-posteriori market segmentation are the disadvantages of a-priori market segmentation, and vice versa.

Hybrid (*nested*) approaches of market segmentation combine the strengths of the a-priori approach with the strengths of the a-posteriori approach. That is, an a-priori segmentation will be done in the first step, followed by an a-posteriori segmentation in the second step, at which the a-priori segments are clustered according to other basis

[22] Wind, Y. (1978); Wedel, M. / Kamakura, W. (2001), pp.17-28.

variables. Such a hybrid approach greatly enhances the usefulness of the outcomes of a market segmentation study for marketing management.

2.4 Step 3: Decide on Segmentation (Basis) and Descriptor Variables.

In the selection of variables for a market segmentation study, the major considerations are:

1. the specific objectives or informational needs of the marketing management, the segmentation study is carried out for, and
2. the current state of knowledge about the relevance of numerous variables as the basis for, and descriptors of, market segments.[23]

The first step in the selection of variables is to decide on *segmentation (basis) variables*. Segmentation variables are those general and/or product-specific characteristics that define and shape consumer behavior, and therefore will be used to assign consumers to internally homogeneous and externally heterogeneous market segments. Moreover, they should be closely related to the specific objectives or informational needs of marketing management, the segmentation study is carried out for, and meet the following criteria[24]:

1. Identifiability,
2. Responsiveness,
3. Measurability,
4. Accessibility,
5. Substantiality,
6. Stability, and
7. Actionability.

Identifiability is the ability to distinguish between several market segments, such that each segment has a unique set of characteristics and can be served by an equally unique marketing mix.

The *responsiveness* criterion is satisfied if the variables divide the market into segments that tend to respond internally uniquely and externally differently to marketing efforts targeted at them.

Measurability means that the variables should be easily measured.

Accessibility is the degree to which managers are able to reach the identified segments through promotional or distribution efforts. Accessibility depends largely on the exis-

[23] Wind, Y. (1978), p.319.

[24] Frank, R.E. / Massy, W.F. / Wind, Y. (1972), pp.27-28; Freter, H. (1983), pp.43-44; McDonald, M. / Dunbar, I. (1998), pp.28-29; Wedel, M. / Kamakura, W. (2001), p.4

tence of links between segmentation variables, specific descriptor variables and the availability and accuracy of secondary data on media profiles and distributional coverage.

The *substantiality* criterion is met if the segmentation variables help to identify segments of sufficient potential sizes, which justify the time, effort and costs involved in planning specifically for them. Obviously, substantiality is closely connected to the marketing goals and cost structure of the company in question.

The s*tability* criterion demands for segmentation variables which bring out segments stable at least for a period long enough for identification of the segments, implementation of the segmented marketing activities, and the production of results.

Actionability focuses on whether the identified segments and the marketing mixes necessary to satisfy their needs are consistent with the goals and core competencies of the company.

Following *Frank/Massy/Wind*[25], segmentation variables can be classified into *general* and *product-specific* consumer characteristics. General consumer characteristics are independent of products and circumstances, like demographic characteristics (age, family, family life cycle, size, gender, income, occupation, religion, race, social class etc.), psychographic characteristics (lifestyle, personality etc.) or geographic characteristics (region, city or metro size, density, climate etc.), while product-specific consumer characteristics, like benefits sought, user status, usage rate, loyalty status, attitude toward product etc., are related to both the customer, product and particular circumstances.[26]

Furthermore, *Wedel* and *Kamakura* classify segmentation variables into whether they are *unobservable* (i.e., *measured directly*) or *unobservable* (i.e., *inferred*), as shown in Table 2-1.

Table 2-1: Classification of Segmentation Variables

	General	**Product-specific**
Observable	Cultural, geographic, demographic and social-economic variables	User status, usage frequency, store loyalty and patronage, situations
Unobservable	Psychographics, values, personality and life-style	Psychographics, benefits, perceptions, attributes, preferences

Source: Wedel, M. / Kamakura, W. (2001), p.7.

[25] Frank, R.E. / Massy, W.F. / Wind, Y. (1972), pp.27.

[26] Kotler, P. (2003), p.288.

According to the previously reviewed criteria, segmentation variables should meet, these variables can be evaluated as depicted in Table 2-2.

Table 2-2: Evaluation of Segmentation Variables

Variable	**Identifi-ability**	**Sustan tiality**	**Acces-sibiliy**	**Stabi-lity**	**Ac-tion-ability**	**Res-ponsiv-eness**
1. General, observable	++	++	++	++	-	-
2. Specific, observable						
Purchase	+	++	-	+	-	+
Usage	+	++	+	+	-	+
3. General, unobservable						
Personality	±	-	±	±	-	-
Life style	±	-	±	±	-	-
Psychographics		-	±	±	-	-
4. Specific, unobservable						
Psychographics	±	+	-	-	++	±
Perceptions	±	+	-	-	+	-
Benefits	+	+	-	+	++	++
Intentions	+	+	-	±	-	++

++ very good, + good, ± moderate, - poor, -- very poor

Source: Wedel, M. / Kamakura, W. (2001), p.16.

Over the years and decades almost all of these variables have been used as basis for market segmentation.[27] Questions can arise as to which work best with different study goals. Although no systematic and exhaustive evaluation of this experience has been undertaken until today, a consensus seems to have emerged that some variables are better suited than others as a basis for certain market segmentation studies.

Some major reasons for segmenting consumer goods markets and its respective variables preferred as segmentation bases are shown in Table 2-3.

[27] Wind, Y. (1978), p.319-320; Wedel, M. / Kamakura, W. (2001), pp.7-16.

Table 2-3: Reasons and Bases for Market Segmentation

Reasons for Segmenting a Market	Bases for Market Segmentation
Providing a general understanding of the market	o Benefits sought; o Needs the product will fill; o Product purchase and usage patterns; o Brand loyalty and switching patterns.
Focusing on product positioning	o Product usage; o Product preference; o Benefits sought; o Needs the product will fill; o Product-, user-, and self-perceptions.
Studies of new product concepts (and introduction)	o Reaction to new concepts (intention to buy, preference over current brand); o Benefits sought; o Product usage patterns; o Price sensitivity.
Studies of pricing decisions	o Price sensitivity, by purchase und usage patterns; o Product, user and self-images associated with products at different prices; o Product usage patterns; o Sensitivity to “deals”.
Studies of advertising decisions	o Benefits sought; o Needs; o Psychographics / “life style”; o Product-, user-, and self-perceptions.
Studies of distribution decisions	o Store loyalty and patronage; o Benefits sought in store selection; o Sensitivity to “deals”.

Source: Wind, Y. (1978), p.320; Struhl, S.M. (1992), pp.14-15.

Whereas the selection of segmentation variables mainly drawn from management needs is straightforward, the selection of variables used as *descriptors* of the identified segments is more complex. This complexity stems not only from the enormous number of possible variables, but also from the necessary twofold link these variables have to offer, namely the link with the selected segmentation variables on the one hand, and the link with secondary data on media profiles, distributional coverage etc., used in combination with the descriptor variables to adjust copy execution, media scheduling, selling and other marketing instruments to each selected market segment.[28]

[28] Wind, Y. (1978), p.320; McDonald, M. / Dunbar, I. (1998), p.28.

In principle, each of the variables mentioned above as possible segmentation variables can also used as a descriptor variable, as long as it offers the two links, discriminates between the segments, is easily to measure and stable in time.

2.5 Step 4: Design the Survey

Formulating the design of the survey to be carried out in the course of a segmentation study requires the following five steps:

a. Select the unit of segmentation analysis,
b. Define the segmentation and descriptor variables operationally,
c. Choose data collection method,
d. Determine sample design.

a. Unit of segmentation analysis: Marketing and consumer behaviour literature recognizes that most purchase and consumption behaviour involves more than a single individual, because of the social context of, and influence on it.[29] But, with few exceptions, all known market segmentation studies center on the *individual* as the sole unit of analysis.[30]

This discrepancy between the desirable and actual unit of analysis can be attributed to both conceptual and methodological problems associated with the move from the individual to the multi-person purchase and consumption situation. In particular, the identification of the relevant persons, the determination of a multi-person dependent variable and the accounting for multi-person independent variables cause such problems.[31]

b. Operational definitions of segmentation and descriptor variables: Effective market segmentation requires that all variables be defined precisely and operationally. An operational definition specifies how the variable is to be measured. It is a sort of manual of instructions to the investigator, and says, in effect, to him "Do such-and-such in so-and-so manner".[32] Particularly, developing operational definitions for unobservable segmentation variables is not a trivial task. Different definitions might result in different segment sizes and compositions, and, moreover, have a major impact on the analysis methodology to be used.

c. Data collection method: Basically, two types of data collection methods are available to a segmentation researcher: *secondary* research and *primary* research.[33] Secondary research consists of data and information that already exist and can be accessed

[29] Berkman, H.W. / Lindquist, J.D. / Sitgy, M.J. (1997); Kotler, P. (2003), pp.184-195.
[30] Wind, Y. (1978), p.324; Struhl, S.M. (1998), p.28.
[31] Wind, Y. (1978), p.324-325.
[32] Kinnear, T.C. / Taylor, J.R. (1996), p.230.
[33] Malhotra, N.K. (2004), pp.37-38; Burns, A.C. / Bush, R.F. (2005), p.32.

by the research. Especially, purchase, scanner and media panel data are of interest for segmentation studies. Such data offer several advantages over primary data. On the one hand, they are easily accessible, relatively inexpensive and quickly obtained[34], on the other hand, they also provide the longitudinal data required for dynamic segmentation analysis, are often based on better samples and better quality controlled data collection procedures[35].

In spite of these advantages, most segmentation studies use a *primary* data collection effort and, in particular, cross-sectional surveys.[36] Frequently this is called the *survey research design*.[37] The reasons for preferring a survey research design for collecting data are the mismatch of the units of measurement, differing definitions used to classify the data, the timeliness of the secondary data, and the lack of information needed to assess the credibility of the data reported.[38]

There are three major ways to collect information from respondents via surveys:

- Have a person ask the question, either face-to-face or voice-to-voice without any assistance from a computer (*person-administered survey*)
- Have a computer assist or direct the questioning in a face-to-face or voice-to-voice survey (*computer-administered survey*)
- Allow respondents to fill out the questionnaire themselves, without computer assistance (*self-administered survey*).

Person-*administered surveys* may be further classified as traditional personal in-home interviews, mail intercept personal interviews, and traditional telephone interviews. *Computer-administered surveys* may conducted as computer assisted personal interviewing (CAPI), computer-assisted telephone interviewing (CATI), or web surveys. *Self-administered surveys* take the form of mail or E-mail interviews.[39]

In selecting a particular data collection procedure, the researcher should give attention to the respondents' ability to perform the task of answering the questions reliably, the cost in term of money and time, and the scale properties required for the intended data analysis.[40]

d. Sample design : The sampling design process includes the following five steps[41]:

- Define the target population.
- Determine the sampling frame.

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[34] Malhotra, N.K. (2004), p.103.

[35] Wind, Y. (1978), p.328.

[36] Ibid.

[37] Kinnear, T.C. / Taylor, J.R. (1996), p. 133.

[38] Burns, A.C. / Bush, R.F. (2005), p.159.

[39] Malhotra, N.K. (2004), pp.170-178.

[40] Wind, Y. (1978), p.329.

[41] Malhotra, N.K. (2004), pp.315-320.

- Select a sampling technique.
- Determine sample size.
- Execute sampling process.

The first issue in designing the sample concerns is *who* will be included in the sample. This means a clear definition is needed of the population from which the sample is to be drawn and about which inferences are to be made from that data. The next issue concerns the determination of the *sampling frame*, that is, a representation (list, directory, map etc.) of the elements of the target population. The third issue involves the selection of a *sampling technique*. These methods can be classified as whether they involve a probability or a non-probability procedure.

The fourth issue refers to the determination of the *number of elements* to be included in the study. Determining the sample size is complex and involves several qualitative and quantitative considerations, namely, (1) the number of variables, (2) the methods of analysis, (3) completion rates, and (4) resource constraints.[42] The last issue requires a detailed specification of how the sampling design decisions are to be implemented.

2.6 Step 5: Decide on Data Analysis Methodology

A wide variety of data analysis techniques is available for market segmentation purposes. They range from *simple tabulations* and *cross-tabulations* to *multivariate analysis techniques*. Which technique to be used depends on both the segmentation approach (a-priori, a-posteriori or hybrid approach) and the objectives of the data analysis. Objectives of the data analysis may be (1) the identification of market segments, i.e., classification of respondents into segments (descriptive statistical methods), (2) discrimination among the identified market segments, i.e., the determination of segment profiles (prescriptive statistical methods), and (3) simultaneous classification and discrimination.[43]

A classification of techniques that have been used for market segmentation according to those two selection criteria results in six categories listed in Table 2-4. Hybrid approaches of market segmentation are not included separately because they represent a combination of the two other approaches.

[42] Ibid., p.318.

[43] Wind, Y. (1978), p.330; Wedel, M. / Kamakura, W. (2001), p.17.

Table 2-4: Classification of Methods used for Market Segmentation

	A priori	Post hoc
Classification	Sorting; Cross-tabulation; Contingency tables; Log-linear models	Clustering methods: non-overlapping, overlapping, fuzzy techniques; Artificial Neuronal Networks (ANN); mixture models
Identification	Cross-tabulation; Regression, Logit and Discriminant analysis	Automatic Interaction Detector (AID); Classification And Regression Trees (CART); Clusterwise regression; ANN; mixture models
Simultaneous classification and identification		Canonical correlation

Source: Wedel, M. / Kamakura, W. (2001), p. 17 (modified), and Wind, Y. (1978), pp.330-332.

Clustering methods are the most popular tools for *a-posteriori* market segmentation, frequently preceded by a factor analysis designed to reduce the original set of variables.

Regarding the evaluation of segmentation methods, Table 2-5 presents an overview of the methods mentioned above. These methods have been evaluated by *Wedel* and *Kamakura* on their effectiveness for *segmentation* (classification) and *prediction* (identification), on their statistical properties, on the availability of computer programs and on applicability to segmentation problems.[44]

Table 2-5: Evaluation of Segmentation Methods

Methods / Criteria	Effectiveness for segmentation	Effectiveness for prediction	Statistical properties	Application known	Availability of programs
1. A-priori, descriptive					
- log linear models	±	--	+	++	++
- cross tabs	±	--	++	++	++
2. A-priori, predictive					
- regression	-	++	++	++	++
- discriminant analysis	-	++	++	++	++

[44] Wedel, M. / Kamakura, W. (2001), p.29.

Methods / Criteria	**Effective-ness for segmenta-tion**	**Effective-ness for prediction**	**Statistical properties**	**Applica-tion known**	**Avail-ability of pro-grams**
3. Post-hoc, descrip-					
tive	++	--	-	++	++
- non overlapping	++	--	-	--	-
- overlapping	++	--	-	±	+
- fuzzy					
4. Post-hoc, predictive					
- AID	±	+	-	++	+
- 2-stage segmentation	+	+	-	+	±
- clusterwise regres-	++	++	±	+	+
sion	++	++	+	+	+
- mixture regression	++	++	+	±	-
- mixture MDS					

++ very good, + good, ± moderate, - poor, -- very poor

Source: Wedel, M. / Kamakura, W. (2001), p. 29.

2.7 Step 6: Collect Data

Data collection (fieldwork) involves a field force or staff that operates either in the field, as in the case of personal interviewing, or from an office by telephone, through mail, or electronically. To minimize data-collection errors, proper selection, training, supervision, and evaluation of the filed force is needed. Because data analysis cannot "fix" bad data, regardless of the data analysis methods used.[45]

2.8 Step 7: Apply Methodology to Identify Market Segments

Once data are collected, the processing of the data begins. This includes the functions of *editing*, *coding* and *transcribing*.[46] Editing involves reviewing the data forms for legibility, consistency, and completeness. Coding involves establishing categories of responses so that numerals can be used to represent the categories. The codes are then transcribed or keypunched onto magnetic tape or disks, or input directly into the computer.

The next step is to analyse the data by applying a suited methodology to identify a reasonable number of market segments. It is often the case in large surveys that several different numbers of market segments can be formed that are clearly different from each other, both statistically and judgmentally.[47] So, the biggest problem for the

[45] Clancy, K.J. / Shulman, R.S. (1994), p.63.

[46] Kinnear, T.C. / Taylor, J.R. (1996), p.67, Malhotra, N.K. (2004), p.10; Burns, A.C. / Bush, R.F. (2005), p.35.

[47] Myers, J.H. (1996), p.21.

analyst might be that of deciding which of the several legitimate solutions makes the most sense.

2.9 Step 8: Profile all Segments by using Basis and Descriptor Variables

Once market segments have been identified, each segment must be "*profiled*", or described as completely as possible. This profiling can be done by using (1) the basis variables used to identify the market segments, or (2) some descriptor variables as well as a suitable prescriptive statistical method. Often used variables for such purposes are demographic and socioeconomic variables.[48]

Segment profiling can be done either prior to selecting a target segment, or to help in the selection of one, or after one or more target segments have been selected. But, the latter proceeding is only recommendable when a simple a-priori segmentation scheme is used, such as heavy/medium/light users.[49]

[48] ibid., p.23; Wedel, M. / Kamakura, W. (2001), p.145.
[49] Myers, J.H. (1996), p.23.

3 Segmenting the Chinese Consumer Goods Market – Results of a Hybrid Segmentation Study

The segmentation study, which will be reported in the following chapter, has been the essential part of the doctoral thesis of one of the authors[50] and could be carried out thanks to the support of *Horizon Research Group Inc. (Beijing)*, one of the pioneers in market research and now a leading firm in professional research and management consulting in the Peoples Republic of China.

It will be characterized by the framework of the eight research steps explained in the last chapter.

3.1 Step 1: Definition of the Relevant Market

The market to be analysed in the market segmentation study is defined as follows:

1. Product related (materially): Consumer goods,
2. Customers related: Adults,
3. Geographically: Urban regions of China,
4. Temporally: 2001

The relevant market of the segmentation study included the adult customers of consumer goods living in the urban regions of China in the year 2001.

To get a rough idea of the size of that market, one should have a look at the population of the PR of China (see Figure 3-1), the population distribution by urban and rural residents (see Table 3-1), and the age structure of the Chinese population (see Figure 3-2).

The figures make clear, that more than two-thirds (63.91 %) of China's population live in the countryside, and as far as the key consumer group is concerned, a high 36 percent of the Chinese population belongs to the age group between 20 and 39, resulting from the baby boom that occurred during 1966-1976. These middle class people, who are more receptive to changes in their traditional life than the older generation, are predominantly responsible for the recent heavy growth of China's consumer goods market. The number in this age group will remain relatively stable over the next several years, as the current population aged less than 20 years old accounts for only 31 percent of the Chinese population.

[50] Liu, Y. (2005).

Figure 3-1: Map of China

Area[51]:	9.600.000 km²
Population[52]:	1.284.530.000
Capital:	Beijing
Regions:	22 provinces 4 municipalities 5 autonomous
Key cities:	Shanghai (16.7 m) Beijing (13.8 m) Guangzhou (9.9 m)
Nationality[53]:	56 nationalities
- Han	(91.59%)
- Minority	(8.41%)
Languages:	Mandarin Various dialects

Source: http://www.chinapage.com/map/province-english.jpg

Since 1977, the Chinese government has been trying to control the growth of the population in order to raise standards and relieve the pressure on its scarce resources. The core of the population policy is to limit couples to one child, with the effect that the average number of children per woman has fallen to around 1.9, while the purchasing power per household has increased considerably.[54] One of the detrimental effects of the one-child policy is that it has resulted in a disproportionate number of male babies being born. Despite the fact that abortion on these grounds of a child's gender is discouraged, the proportion of male babies to female babies has reached 120:100 in 2001 (see Figure 3-2).

[51] China Statistical Yearbook 2003, p.9.

[52] China Statistical Yearbook 2003, p.93. Data in 2002 have been adjusted and estimated on the basis of the 2000 national population censuses. The military personnel were included in the national population, but not the population of Hong Kong, Macao, and Taiwan.

[53] China Statistical Yearbook 2003, p.95.

[54] Euromonitor (ed.), 1994, p.12.

Table 3-1: Population Distribution by Urban and Rural Residents in 2001 (unit: 10,000 persons)

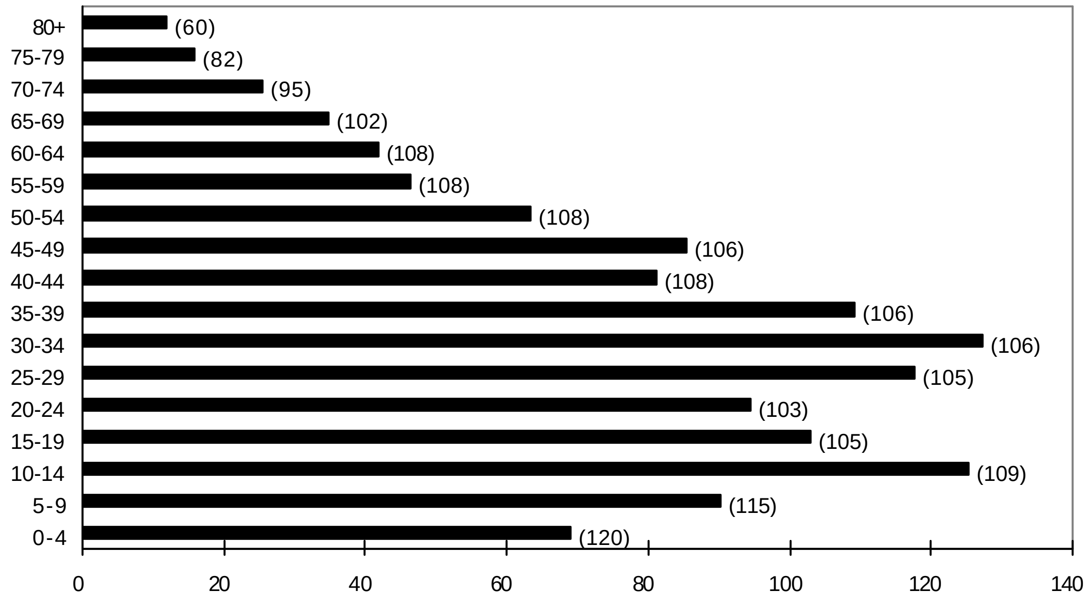
Region	Total Population	Urban Population	Rural Population	Percentage to Total	
				Urban	Rural
Mainland, total[55]	**12633 3**	**45594**	**80739**	**36.09**	**63.91**
- Beijing	1382	1072	310	77.54	22.46
- Tianjin	1001	721	280	71.99	28.01
- Hebei	6744	1759	4985	26.08	73.92
- Shanxi	3297	1151	2146	34.91	65.09
- Inner Mon-golia	2376	1014	1362	42.68	57.32
- Liaoning	4238	2299	1939	54.24	45.76
- Jilin	2728	1355	1373	49.68	50.32
-Heilongjiang	3689	1901	1788	51.54	48.46
- Shanghai	1674	1478	196	88.31	11.69
- Jiangsu	7438	3086	4352	41.49	58.51
- Zhejiang	4677	2277	2400	48.67	51.33
- Shangdong	9079	3450	5629	38	62
- Anhui	5986	1655	4321	27.81	72.19
- Fujian	3471	1443	2028	41.57	58.43
- Jiangxi	4140	1146	2994	27.67	72.33
- Henan	9256	2147	7109	23.2	76.8
- Hubei	6028	2424	3604	40.22	59.78
- Hunan	6440	1916	4524	29.75	70.25
- Guangdong	8642	4753	3889	55	45
- Ganggxi	4489	1264	3225	28.15	71.85
- Hainan	787	316	471	40.11	59.89
- Chongqing	3090	1023	2067	33.09	66.91
- Sichuan	8329	2223	6106	26.69	73.31
- Guizhou	3525	841	2684	23.87	76.13
- Yunnan	4288	1002	3286	23.36	76.64
- Tibet	262	50	212	18.93	81.07
- Shanxi	3605	1163	2442	32.26	67.74
- Gansu	2562	615	1947	24.01	75.99
- Qinghai	518	180	338	34.76	65.24
- Ningxia	562	182	380	32.43	67.57
- Xinjiang	1925	651	1274	33.82	66.18

Source: China Statistical Yearbook 2002, p.41.

[55] Mainland total covers the 31 provinces, autonomous regions and municipalities, but excludes the military personnel.

At the time that Chinese boys come to marriageable age, social unrest will likely occur as a result of the shortage of women available. On the other hand, parents are incline to seek better-quality products for their one and only child, thus increasing the purchase of foreign consumer goods.

Figure 3-2: China's Population by Age (in Millions) and Sex Ratio[56]



Source: China Statistical Yearbook 2002, p.45.

Moreover, China has been the fastest-growing economy on earth for years and remains in the lead still today. From 1978, when China's socialist economy embarked on its first step to becoming a socialist market economy, to 2002, on average the country's GDP grew by 9.3 % annually (see Figure 3-3) – three times faster than the American economy did during the same period, and its per capita income more than quadrupled from $231 to $940 a year.[57]

The 9.1 percent growth of GDP in 2003 has caused attention and disputation in the world. "The Chinese economy is too complicated to be described by such ready-made terms as 'hot' or 'cold'", *Xinhua* said, citing the former deputy director of the *State Council Development Research Center*, *Lu Baifu*. "We should view the current economic situation in a cool-minded and a matter-of-fact manner. … If we stop the proactive fiscal policy and tighten money supply, the economy is likely to be clogged, resulting in temporary default and mislocation and that is very dangerous in the economic operation," *Lu* said." [58] He described the current high level operation of the

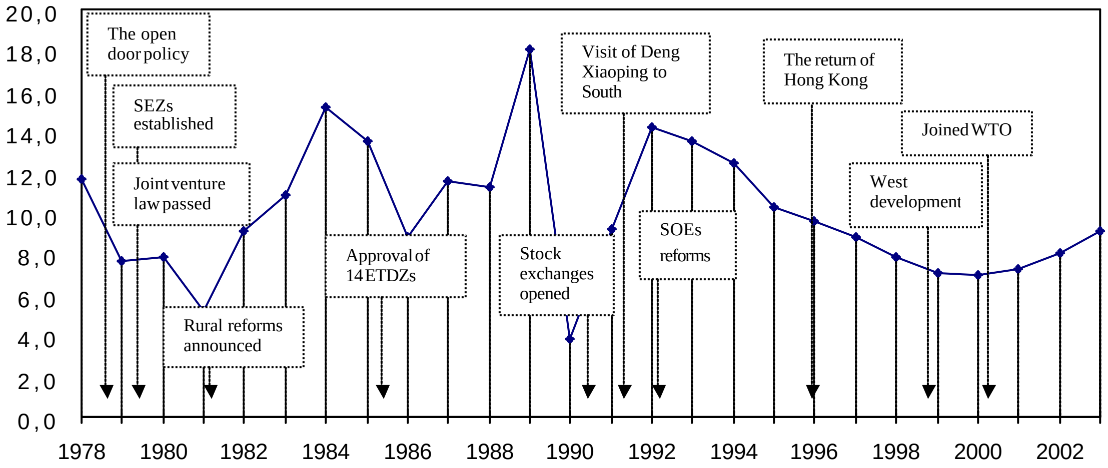
[56] The horizontal axis represents the Chinese population (in millions), while the vertical axis depicts the age of the people. Figures in brackets denote the ratio of males to every 100 females.

[57] Zeng, M. / Williamson, P.J. (2003), p.92.

[58] Sun, M.Z. (2004).

economy, including the demand for investment, import and export and consumption, as "normal", adding that it reflects the outburst of the intrinsic vitality injected by restructuring, institutional innovation and active macroeconomic policy over the past few years.

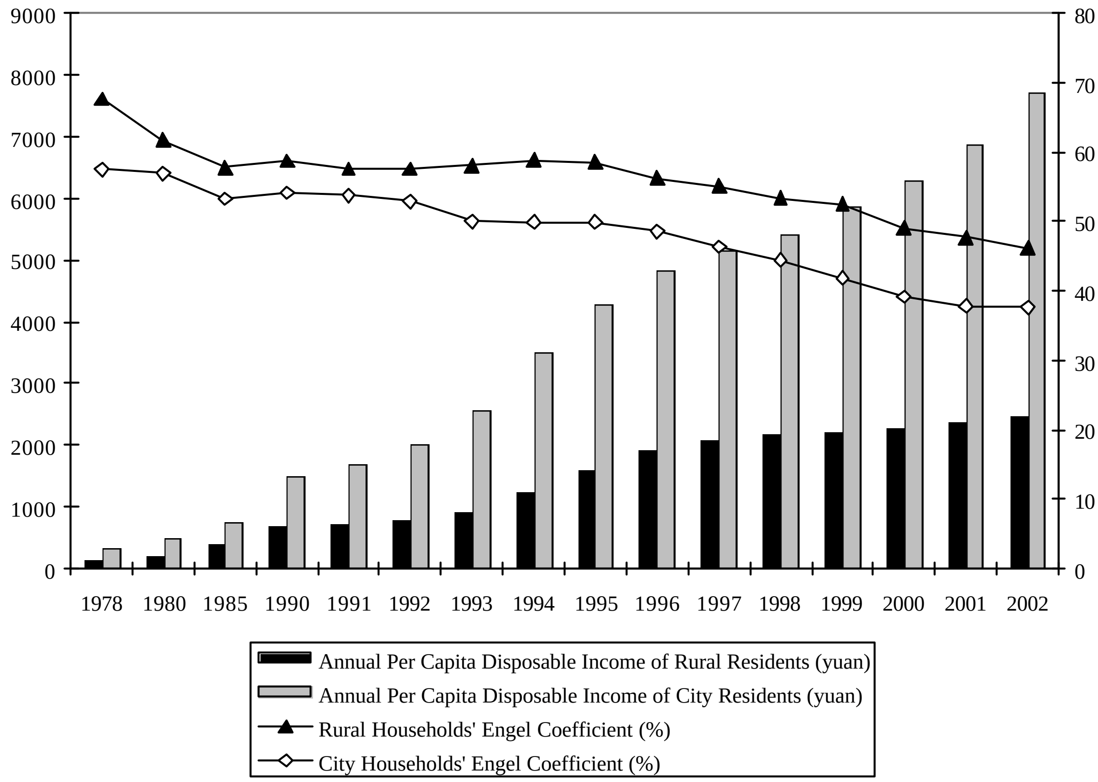
Figure 3-3: Growth of GDP (in percent) and Key Events in China, 1978-2003



Source: GDP figures from China Statistical Yearbook 2003, p.55; key events are extracted from China's Key Events of CCP.

Figure 3-4 indicates that the annual per capita disposable income of city residents increased from 343 Yuan in 1978 to 7703 Yuan in 2002, i.e., snowballing more than 200 %; that of rural residents increased from 134 Yuan in 1978 to 2,476 Yuan in 2002. So, because income growth stimulates consumption overly, China has the largest consumer goods market in the world.

Figure 3-4: Annual Income Per Capita of Urban and Rural Households and Engel's Coefficient[59]



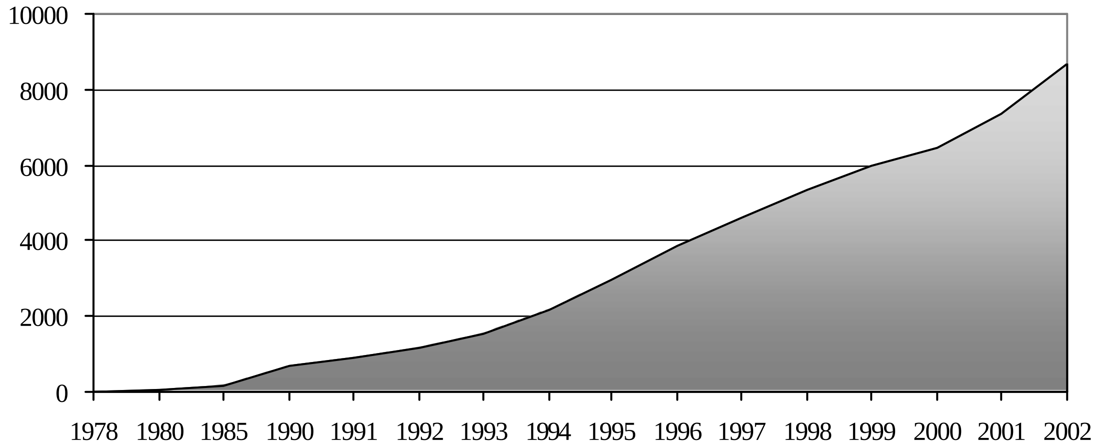
Source: China Statistical Yearbook 2002, p.280. China Statistical Yearbook 2003, p.315.

In recent years, most reforms have entered several stages of growing prosperity in succession, some have already increased residents' consumption expenditure, and some will increase the consumption expenditure of residents in the future. With the SOEs reforms, and the increase of lay offs and unemployment, residents' incomes are expected to be reduced. As a result, consumers will have to reduce their prompt consumption and begin saving more of their income.

One of the prominent characteristics of the Chinese economy has been its people's high propensity to save. As Figure 3-5 shows, the Chinese savings increased from 21.06 billion Yuan in 1978 to 8691.06 billion Yuan in 2001.

[59] Engel's coefficient indicates the ratio between the expenses on food and other items of consumption, so, the drop of Engel's coefficient signifies an improvement in people's life quality.

Figure 3-5: Annual total Savings of Urban and Rural Residents (in Billion Yuan), 1978-2002



Source: China Statistical Yearbook 2003, p.318.

In 1982, gross domestic savings as percent of GDP amounted to 34.8 % (higher than in any other Asian country), and during its peak in 2002, reached 44 %.[60]

Income and savings are the primary factors that influence consumers' consumption. In terms of yearly expenditure per capita, rural households spend nearly half (46.25 %) of their take-home pay on food (see Table 3-2). Although urban households also allocate a large percentage of their income to food (37.68 %), they spend more than rural households on clothing, household items, insurance, transportation, as well as education. Total yearly consumption expenditures per capita of urban households are 6029.88 Yuan, about three times higher than those of rural households (1909.68 Yuan).

[60] World Bank (2003).

Table 3-2: Yearly Expenditures per Capita of Urban and Rural Households in 2002 (in Percent)

Consumption Expenditure	Yearly expenditure per capita of urban households	Yearly expenditure per capita of rural households
General Consumer goods	53.93	56.35
Food	*37.68*	*46.25*
Clothing	*9.8*	*5.72*
Household facilities, articles and service	*6.45*	*4.38*
Medicine and Medical Service	7.13	5.67
Transport, Post and Communication	10.38	7.01
Education, Cultural and Recreation	14.96	11.47
Residence	10.35	16.36
Miscellaneous	3.25	3.14
Total Expenditures	100	100

Source: Figures are calculated based on China Statistical Yearbook 2003, p.319, and p.344.

Most Chinese housing is subsidized by the government, and real estate prices keep home ownership out of reach for most Chinese.[61] The government also heavily subsidizes other necessities, such as transportation, but as China moves to a socialist market economy, such subsidies will likely be reduced and eventually eliminated.

Finally, Table 3-3 shows the number of major durable consumer goods owned per 100 urban and rural households at the end of 2002.

[61] Yan, R. (1994), p.68.

Table 3-3: Number of Major Durable Consumer Goods Owned per 100 Urban and Rural Households at the End of 2002

Number of Major Durable Consumer Goods Owned Per 100 Urban Households		Number of Major Durable Consumer Goods Owned Per 100 Rural Households	
Motorcycle (unit)	22.19	Motorcycle (unit)	28.07
Washing Machine (set)	92.9	Washing Machine (unit)	31.8
Refrigerator (set)	87.38	Refrigerator (unit)	14.83
Color Television Set (set)	126.38	Color TV Set (unit)	60.45
Video-recorder (set)	18.43	Video-recorder (unit)	3.32
Hi-Fi Stereo Component System (set)	25.16	Hi-Fi Stereo Component System (unit)	9.73
Camera (set)	44.08	Camera (set)	3.34
Air Conditioner (unit)	51.1	Air Conditioner (unit)	2.29
Mobile Telephone (unit)	62.89	Mobile Telephone (set)	13.67
Smoke Absorber (unit)	60.67	Telephone Set (set)	40.77
Video Disc Player (set)	52.57	Beep-pager (unit)	5.45
Computer (set)	20.63	Black and White TV Set (unit)	48.14
Pickup Camera (set)	1.92	Electric Fan (unit)	134.26
Oven (unit)	30.91	Exhaust Fan (unit)	3.58
Healthy Equipment (set)	3.74	Radio Cassette Player (unit)	20.41
Shower (unit)	62.42	Bicycle (unit)	121.32
Automobile (unit)	0.88		

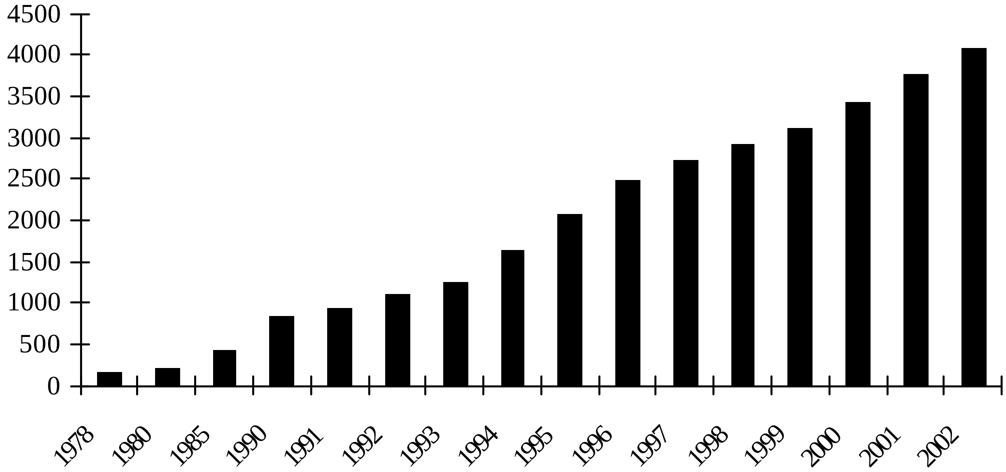
Source: China Statistical Yearbook 2003, p.326 and p.349.

Total retail sales of consumer goods in 2002 reached 4091.05 billion Yuan (492 billion US$), about 25 times higher than that in 1978 (155.86 billion Yuan, or 18.8 billion US$), as Figure 3-6 shows.

According to the location of retailers, cities account for 63.3% of total retail sales of consumer goods.[62]

[62] China Statistical Yearbook 2003, p.569.

Figure 3-6: Total Retail Sales of Consumer Goods (in Billion Yuan), 1979-2002



Source: China Statistical Yearbook 2003, p.569.

3.2 Step 2: Applied Segmentation Approach

Following Cui[63], who argued that because of the diversity in consumption patterns, a hybrid approach for segmenting China's consumer goods market (CCGM) using multiple dimensions, including demographics, psychographics and geographics, is well advised, a *hybrid* segmentation approach has been also applied to the segmentation study concerned.

That is, an *a-priori* segmentation based on demographics has been done in the *first step*, followed by a *post-hoc* segmentation in the *second step*, using psychographics as basis variables. Such a combination of approaches greatly enhances the usefulness of the outcomes for management.

3.3 Step 3: Segmentation and Descriptor Variables

Psychographic characteristics explain the behavior of consumers in a microcosmic view, while demographic characteristics explain in a macroscopic view. Therefore, combining psychographics and demographics could obtain a better understanding of the consumers' needs and expectations, and segment Chinese consumers more powerfully than by only using one of them. Sometimes marketers use only psychographics to define market segments, but a better practice is to use them for splitting market segments that have been defined with more traditional variables, like demographics, into sub-segments.

[63] Cui, G. (1999).

In the study concerned, *Life Patterns* (psychographics) and *Social Stratifications* (demographics) have been postulated as bases for market segmentation. Life patterns have been derived from 97 survey statements, which measured a series of personality traits, lifestyle activities and personal values of Chinese consumers. Social stratifications have been classified according to occupation, income and education of those.

The reasons why life patterns and social stratifications have been selected as bases for segmenting the CCGM were the following:

- *Firstly*, researchers have asserted that the influence of psychographics on human behaviors is of a great extent.[64] Moreover, psychographic segmentation provides a rich descriptive detail for companies to develop marketing strategies.[65] So, psychographics are popular as bases for market segmentation, but only few publications emerged on psychographic segmentation of Chinese consumers.[66] Before China had carried out the reforms and opened itself to the outside world, the concept of lifestyle could not even be found in dictionaries.[67]
- *Secondly*, personality traits, personal values and lifestyles define a person's life pattern. Various life patterns enhance or constrain the dynamic behavior of consumers. Chinese life patterns are basically dominated by the doctrines of Confucianism and Taoism, as well as special national situation and state policies. Traditional Chinese, especially those who experienced the establishment of the PRC, the so called "*Cultural Revolution*", the political and economic reforms, that have followed, and, finally, the opening to the outside world, have a unique psychology. They pay more attention on how other people regard them, so they hide real preferences and interests. They have money now, but without a secure future due to the imperfect social security system and health care insurance system, they tend to be thrifty and pragmatic when buying products. Conversely, the young people who seek the modern way of life are easier to accept new things and are more likely-willing to imitate the lifestyle of Westerners. They prefer products in vogue. Some people take international brands as symbols of their status or wealth. Due to China's family planning policy, the children less than 18 years old are mostly only-son or only-daughter; their personality traits, values, and lifestyles are completely different from their parents. At the same time, the growth of income is also the catalyst for changing of life pattern. For example, the purchase targets of Chinese households are changed from "watch, bicycle and sewing machine" in 1950s, to "house, car and money" in 1990s. Thus, it can be seen that Chinese consumers

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[64] Engel, J.F. / Blackwell, R.D. / Miniard, P.W. (1990), pp.344-357.

[65] Lesser, J.A. / Hughes, M.A. (1986), p.18; Berkman, H.W. / Lindquist, J.D. / Sirgy, M.J. (1997), pp.227-236.

[66] To mention are, for example, Wei, R. (1997); Wang, D.F. / Cui, H. (2001); Wu, Y. (2002); Yang, X.Y. (2003); Ma, F. (2004).

[67] Ma, F. (2004), p.84.

are becoming more complex and heterogeneous, and different life patterns show various consumption trends and preferences.

- *Thirdly*, people on different social stratifications exhibit different consumption trends and preferences due to particular financial and psychological factors. The people of the higher class are more active consumers who attempt to symbolize their status and prestige with brands while people of the lower class are more concerned with being pragmatic when purchasing goods. Therefore, companies should employ differentiated marketing strategies specific to the various consumer groups they are targeting.
- As this research substantiates, the basis of both life patterns and of social stratifications meet the criteria for suitable segmentation variables, namely *identifiability*, *substantiality*, *accessibility*, *responsiveness*, *stability*, and *actionability*. As will be shown in the following chapters, *life patterns* help to identify *wealth oriented*, *tradition oriented*, *status oriented* and *fashion oriented* clusters of consumers; *social stratifications* help to detect three clusters: *well-off class*, *middle class* and *mass class*.

Identifiability: Distinct segments of urban Chinese consumers can be identified by using the basis of life patterns and social stratifications. For example, *"fashioners"* are oriented by fashion and belong to the well-off class, while *"moderatists"* are oriented by tradition and belong to the middle class.

Substantiality: Each identified segment of urban Chinese consumers represents a large enough portion of the market to ensure the profitability of target market programs.

Accessibility: All segments can be reached through promotional and distributional efforts.

Responsiveness: They also will respond uniquely to marketing efforts targeted at them.

Stability: Because of the probable stability of China's politics and economic development, urban Chinese consumers will maintain rather stable life patterns and social stratifications, so that the identified segments will also be stable for a period long enough for implementing segment tailored marketing programs and gaining economic advantages.

Actionability: Each segment provides guidance for decisions on the effective specification of marketing instruments.

As *descriptor* variables have been selected some *demographic* variables (such as age, sex, occupation, education, etc.), as well as *behavioral* variables (such as media usage, consumption patterns, preferences, etc.).

3.4 Steps 4 and 5: Survey Design and Data Collection

The data in the study came from a national survey of Chinese consumers conducted in 2001 by *Sinomonitor International*, a Chinese market research company. *In-home personal (face-to-face) interviews* have constituted the most important source of the data-gathering process. The survey has been based on a pure probability sample representing the entire urban Chinese consumers. It has included 70,684 respondents aged 15-64 years from thirty main cities of China mainland.

These 30 cities have been: (1) Beijing, (2) Shanghai, (3) Guangzhou, (4) Shenzhen, (5) Chengdu, (6) Tianjin, (7) Shenyang, (8) Jinan, (9) Nanjing, (10) Wuhan, (11) Fuzhou, (12) Xi'an, (13) Kunming, (14) Chongqing, (15) Xiamen, (16) Hangzhou, (17) Zhengzhou, (18) Qingdao, (19) Dalian, (20) Haerbin, (21) Changchun, (22) TaiYuan, (23) Changsha, (24) Nanning, (25) Haikou, (26) Fushan, (27) Ningbo, (28) Suzhou, (29) Nanchang and (30) Hefei.

The sample of 70,684 respondents has been split into 30 sub-samples, comprising about 5,000 respondents in Beijing as well as in Shanghai, about 4,000 respondents both in Guangzhou and in Chengdu, and about 2,000 in the other cities.

A city has been the *primary sampling unit* (*PSU*). In the first place, samples within each PSU have been stratified based on regionalism and distributed on the Probability Proportional to the Size (PPS) out of the total population. Then, neighborhood samples have been selected from each borough at random on PPS. Next, twenty households have been selected at random from each neighborhood. Every selected household has been visited by interviewers, who then enumerated all the household members in-scope[68] and asked for demographic information such as age and sex. Finally, the *Kish* grid[69] method was used to select one person within each household with equal probability.[70] The whole *multi-stage stratified random sampling process* is illustrated in Figure 3-7.

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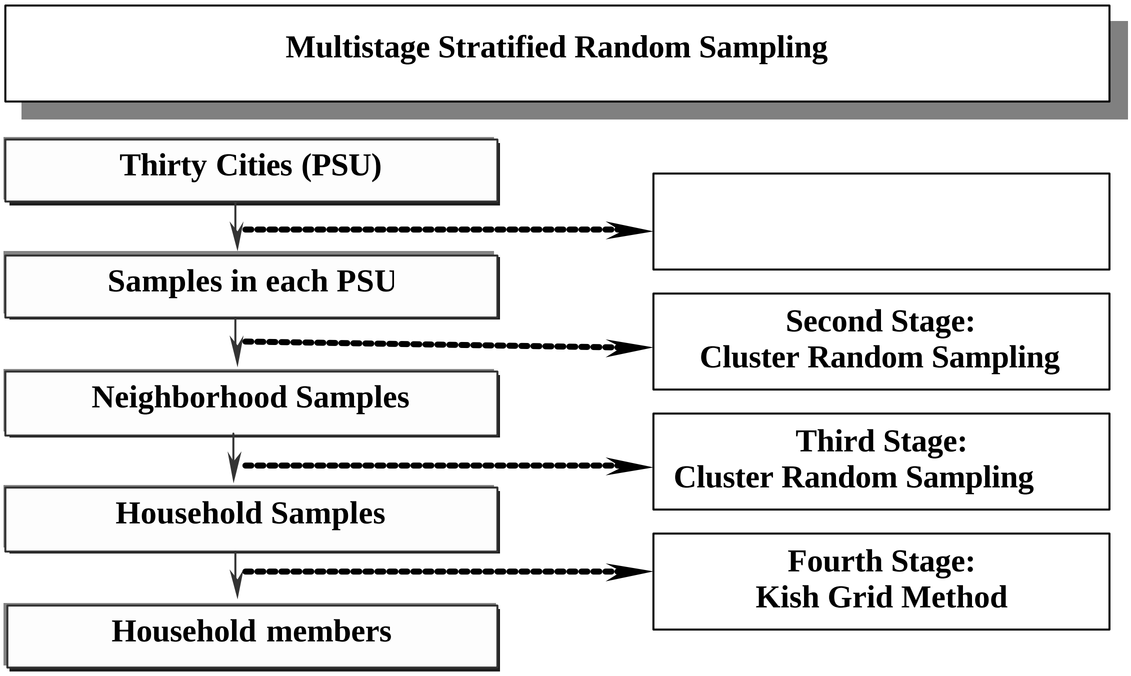
68 In-scope refers to those household members who are part of the target population.

69 Kish grid comes from Leslie Kish, a Hungarian born American statistician. In those days, Kish was one of the world's leading experts on survey sampling.

70 Németh, R. (2003).

Figure 3-7: Sampling Process



The *Kish* grid method used in the study identifies which one of the eligible members in a household should be randomly selected (when more than one eligible member is present) to ensure the representive qualities of the sub-samples. When applying the *Kish* grid method, the members of the household at the first step are ordered by age. A cover sheet is then assigned to each sample household, it contains a form for listing the adult occupants[71] (see Table 3-4), and a table of selection (see Table 3-5).

Table 3-4: Form for Listing the Adult Occupants (Example)

Relationship to Head	Sex	Age	Adult No.	Selection
Head	M	42	3	
Wife	F	40	4	✓
Head's father	M	65	1	
Head's mother	M	60	2	
Daughter	F	18	5	

The interviewer lists each adult on one of the lines of the form. Each is identified in the first column by his/her relationship to the head of the household. In the next two columns, the interviewer records the sex and age of each adult. Then the members are

[71] Kish, L. (1965), p.398.

numbered in order of decreasing age. In the next step, the interviewer consults the selection table. This table tells him/her the number of the adults to be interviewed. In the above example, there have been five adults in the household and selection table D tells to select adult number 4 (see Table 3-4).

Table 3-5: Selection Table Used for Selecting one Adult in each Household[72]

Selection Table D	
If the number of adults in household is:	Select adult numbered:
1	1
2	2
3	2
4	3
5	4
6 or more	4

Source: Kish, L. (1965), p.399.

The sample sizes and sampling probabilities which have been generated for the survey are listed in Table 3-6.

Table 3-6: Sample sizes and sampling probabilities

Sampling Unit	Sampling Numbers	Total Numbers in Urban China[73]	Sampling Probability
City	30	662	1:22
Neighborhood	3500	115,000	1:33
Household	70000	53,300,000	1:760
Adult	70000	312,000,000	1:4500

The 70,648 respondents for the study were distributed over 30 cities in China mainland. 7.1 percent of those came from Beijing and Shanghai respectively, 5.9 percent

[72] Note: Selection Table D is just one of eight types of selection tables defined by Kish

[73] National Bureau of Statistics of China.

from Chengdu and 5.7 percent from Guangzhou. The remaining three-fourths were quite evenly distributed between 26 other cities, with each about 2.8 percent. The respondents were 51 % male and 49 % female, ranging in age from 15 to 64 years. 65.1 percent of respondents were married.

In terms of education, no more than 6 percent finished primary school or less; the majority (41.6 %) finished at senior high school/secondary technical school. Blue-collar workers were 33.5 percent; professionals were 13.4 percent and managers in enterprises were 9.3 percent. Monthly average income of respondents distributed from zero to 3000 Yuan plus.

About 33.2 percent reported an average income less than 500 Yuan, 31.4 percent between 500 – 999 Yuan, 24 percent between 1000 – 2999 Yuan and only 1.8 percent equal and more than 3000 Yuan (see Table 3-7).

Table 3-7: Profiles of the Respondents from 30 Cities in China

Region	Beijing	7.1 %
	Shanghai	7.1 %
	Guangzhou	5.7 %
	Chengdu	5.9 %
	Other 26 cities	74.2 %
Age	15-24	24.9 %
	25-34	27.4 %
	35-44	21.4 %
	45-54	14.6 %
	55-64	10.5 %
	No answer	1.2 %
Gender	Male	51 %
	Female	49 %
Marital status	Single	33.6 %
	Married	65.1 %
	No answer	1.3 %
Education	Junior high school and less	31.4 %
	Senior high school/secondary technical school	41.6 %
	College	15.3 %
	University and more	10.3 %
	No answer	1.4 %
Occupation	Governor	5.4 %
	Managerial personnel in enterprises/companies	9.3 %
	Professionals	13.4 %
	Blue-collar workers	33.5 %
	Self-employed	5.0 %
	Free vocation	1.6 %
	Students	13.7 %
	Others (unemployed, laid-off, retired, housewives, etc.)	18.1 %
Monthly average income	Less than 500 Yuan	33.2 %
	500 – 999 Yuan	31.4 %
	1000 – 2999 Yuan	24 %
	3000 plus Yuan	1.8 %
	No answer	9.6 %

Each interview has comprised more than 130 questions from a structured questionnaire (see Appendix) on demographics, products and brands, media and lifestyle. The data set contained demographic information such as household composition, income, age, sex, marital status, education, location of the residence, and so on. In addition, 97 survey statements of the data set measured a series of consumer attitudes, lifestyle activities, personal values, media usage and consumption patterns etc.

Respondents were asked to indicate their level of agreement with each of the statements on a *Likert*-type 5 point scale (1 = strongly agree, 2 = somewhat agree, 3 = neutrality, 4 = somewhat disagree, 5 = strongly disagree) in the light of his/her actual situation (see Appendix).

3.5 Step 6: Data Analysis Methodology

As outlined above, the segmentation study was based on the unweighted data of 70,684 completed interviews from urban areas, thus providing an accurate representation of urban consumers in China. The analysis of the data was carried out in the first step (*a-priori segmentation*) by sorting the respondents into three groups, followed in the next steps (*post-hoc segmentation* and *profiling of segments*) by means of statistic software *SPSS 11.5 for Windows*. It involved the following tasks:

1. To reduce the number of variables to a more manageable size while also removing correlations between each variable, *Factor Analysis* was employed;
2. To produce groups of respondents who have similar responses on key variables, non-hierarchical *K-means Cluster Analysis* was used;
3. To classify all respondents into predefined groups, *Stepwise Discriminant Analysis* was applied;
4. To define characteristics of each groups on occupation, education, income and others, *Correspondence Analysis* was used;
5. To test group differences along various dimensions, *TGI (Target Group Index)* and *ANOVA (analysis of variance)* were used;
6. To compare the goodness-of-fit of observed and expected frequencies in each categorical variable such as marital status, and education, *Chi-Square Test* was used;

3.6 Step 7: Identification of Market Segments

3.6.1 A-priori Segmentation

Social stratification theory initiated by *Max Weber*, the most essential theory and analytical framework to social stratification, applies the criteria of wealth, prestige and power to measure off social stratification.[74] Considering the indigenous situation in China, *education, occupation* and *income* have been applied as variables of social stratification.

The Chinese previously had great inequality in politics, but relative low inequality in economics; therefore, China's social stratifications were divided by political classes. Since China's economic reforms were implemented and it began interacting with other countries, the country has experienced a significant reduction in the disparity of its political classes instead of an increase of disparities of its economic classes. As a result of this change, now the Chinese commonly judge one's social status by his income, occupation and education.

Due to imperfect salary and tax systems, it's difficult to calculate the Chinese worker's exact income. For example, teachers' salaries in China are lower than that of workers in enterprises, but most of teachers have a second job such as tutor for individual students, lecturer in various training courses, etc. This kind of income is invisible in the pay slip. Therefore, if one simply uses income data collected during interviews, deflection is inevitable.

To avoid the contrived error, the *possession situation* of the household concerning *durable goods* has been used as a substitute for income. The Chinese labor in an attempt improve their economic situation. The possession of household durable goods is one way that the Chinese estimate one another's wealth or lack thereof. In the late 1970s, a person would have been proud to own a watch, bicycle and sewing machine; by the 1980s, a person would have desired a color TV, refrigerator and recorder. In the 1990s, the Chinese people favored mobile phones, personal computers and stereos; currently, the trend is for household cars and housing. Therefore, an inventory of one's household durable goods is the best indication of a Chinese's social stratifications.

While the occupation variable can not be quantitatively measured, it is safe to say that the, occupation system in China has not been standardized yet. But in China, it is a fact that the higher one's occupation and income is, the larger the household living size. Hence, *household living size* has been used as quantitative index to replace the occupation variable.

As a result, the index system of social stratifications has been structured as shown in Table 3-8 and expressed in the following equation:

$$S = \sum_{i=1}^{9} a_i P_i$$

(a represents a weight coefficient, P the variable score)

[74] Wu, Y (2002), p.42.

Coefficient values and score values have been assigned according to experience to each of the nine variables, and to each variation of the nine variables used in the index respectively (see Table 3-7). Adding all weighted variable scores leads to the final social stratification score of a respondent, which can reach up to a maximum of nearly 100.

Table 3-8: Index System of Social Stratifications

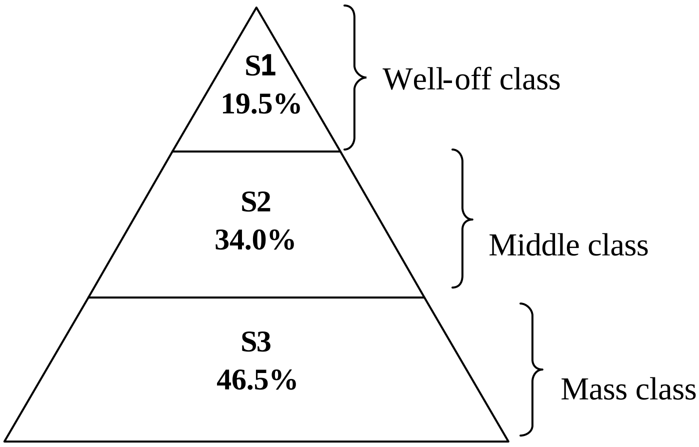
Variable No.	Variables	Variable Score
? .	Education: a =1	
1a	Junior high school and less	4.0
1b	Senior high school/secondary technical school	8.0
1c	College	12.0
1d	University or higher	16.0
? .	Household living size (m^2): a =1	
2a	20 or less	4.0
2b	21-30	8.0
2c	31-40	12.0
2d	41-50	16.0
2e	51-60	20.0
2f	61-80	24.0
2g	81-100	28.0
2h	100 or above	32.0
? .	Household durable goods and insurance: a =0.45	
3.	Household car	28.0
4.	Self-appointed insurance	24.0
5.	Computer	20.0
6.	Printer	16.0
7.	Video camera	12.0
8.	Water heater	8.0
9.	Microwave oven	4.0

According to their respective final scores, respondents were then classified into three groups, which indicate different social stratifications:

- 50 < S1 < 100,
- 35 < S2 = 50,
- S3 = 35.

Figure 3-8 illustrates these social stratifications of urban Chinese consumers.

Figure 3-8: Social Stratifications of Urban Chinese Consumers



Obviously, S3 accounted for the majority of Chinese consumers, which accords with the facts in current China. S3 has been defined as mass class, S2 as middle class and S1 as well-off class.

Table 3-9: Social Stratifications of U.S. Consumers and Urban Chinese Consumers

Major U.S. Social Classes[75]	Social Stratifications of Urban Chinese Consumers
Upper Uppers (less than 1%) Lower Uppers (about 2%) Upper Middles (12%)	S1: Well-off class (19.5%)
Middle Class (32%)	S2: Middle Class (34.0%)
Working Class (38%) Upper Lowers (9%) Lower Lowers (7%)	S3: Mass Class (46.5)

Compared with major U.S. social classes, the social stratifications in this study classify only urban Chinese consumers, and their definition is comparatively broad. S1 (well-off class) is equivalent to the sum of top three groups (upper uppers, lower uppers and upper middles) in major U.S. social classes; S3 (mass class) is similar with the last three groups (working class, upper lowers and lower lowers) in major U.S. social classes (see Table 3-9).

[75] Coleman, R.P. (1983), p.270.

Table 3-10: Social Stratifications and Demographics

Demographic variables	Total N=70,684	S 1 13,743	S 2 24,037	S 3 32,903
	%	**TGI**	**TGI**	**TGI**
Age				
15-24	24.9 %	93.9	95.6	88.2
25-34	27.4 %	81.8	**108.6**	93.8
35-44	21.4 %	**120.9**	**106.5**	108.0
45-54	14.6 %	**110.7**	93.1	**114.7**
55-64	10.5 %	71.9	92.7	**118.8**
Gender				
Male	51 %	**105.9**	100.3	97.6
Female	49 %	93.8	99.6	102.5
Education				
Junior high school and less	31.4 %	34.1	64.6	**154.6**
Senior high school/secondary technical school	41.6 %	72.2	**114.5**	**103.1**
College	15.3 %	**186.9**	**135.7**	43.1
University and more	10.3 %	**297.7**	110.2	19.3
Occupation				
Governors	5.4 %	**169.8**	98.3	48.6
Managerial personnel in enterprises/com.	9.3 %	**151.3**	**119.8**	64.1
Professionals	13.4 %	**152.2**	**129.0**	64.3
Blue-collar workers	33.5 %	47.9	93.8	**126.3**
Self-employed	5.0 %	72.5	**120.9**	112.7
Free vocation	1.6 %	81.9	96.4	102.6
Students	13.7 %	133.1	105.7	81.2
Others (unemployed, laid-off, retired, etc)	18.2 %	94.4	73.9	**121.4**

Table 3-10 indicates the demographic features of the three social stratifications. The *TGI (Target Group Index)* concept has been used for this purpose. The *TGI* concept was originated by *BMRB (British Market Research Bureau) International* in 1969, and represents a single source survey which links together media exposure and habits, product usage, and other information about consumers obtained from the same individuals.[76] The "single source" feature means that it can be used to help identify, describe and reach, with the appropriate media, target groups for advertising campaigns, without the uncertainty involved in matching the information from different samples (the only way it could be done before the invention of the *TGI*).

[76] McDonald, C. (1995), pp.107-118.

The analysis of the *TGI* data results in the calculation of four indices.[77] One and the most important of them is the so called index of selectivity, which is calculated as follows: ratio of a certain index's percent in a certain subgroup to same index's percent in total group, then multiplied by a constant of 100. Its basic purpose is to depict exactly the characteristics of target groups.[78]

The formula is: $\text{TGI} = r_{i\ (\text{subgroup})} / R_{i\ (\text{total})} * 100$

As shown in Table 3-10, consumers in S1 are mostly well-educated male governors, managerial personnel in enterprises/ companies and professionals in middle age (35-54); S2 consists of consumers mostly younger than consumers in S1, they normally received middle education with the occupation of managerial personnel in enterprises/ companies, professionals and self-employed consumers; Consumers in S3 are mainly poorly educated and older: 45-plus blue-collar workers, unemployed, laid-off and retired consumers. There are no distinct differences between male and female consumers in S2 and S3.

3.6.2 Post-hoc Segmentation

Preliminary to the post-hoc segmentation, the 97 survey statements, which measured a series of consumer attitudes, lifestyle activities, personal values, and so on, have been factor analyzed. The data set showed a sufficient correlation by a high *Kaiser-Meyer-Olkin (KMO)* index of 0.807 (i.e., close to 0.9) in the measure of sampling adequacy; the application of factor analysis was therefore supported.

A principle component factor analysis with *Varimax Rotation* has been applied next, to determine the possible dimensions of consumers' life patterns, and more importantly, to what extent the 97 statements could be accounted for by a smaller number of factors. Out of a total of 97 items, statements with factor loadings over 0.5 have been selected; at the same time, the selected statements have been sought out repeatedly in order that the total cumulative variance became 50 % or higher. There were 25 items finally retained. A nine-factor solution emerged (eigenvalue greater than 1.0) with a total variance explained of 62.1 percent. Table 3-11 shows the emerged factors of life patterns with factor loadings and cumulative variance percent.

[77] McDonald, C. (1995), pp.107-118.

[78] Sinomonitor International (2004).

Table 3-11: Emerging Factors of Urban Chinese Consumers' Life Patterns

Items loaded on each factor	Factor loadings	% of Variance	Cumulative %
Factor 1: Ad-conscious			
Advertisement is absolutely necessary in daily life	0.594	16.05	16.05
I pay more attention to the street ad	0.756		
I often read the ad in newspapers and magazines	0.803		
I like the ad on TV	0.728		
Factor 2: Opening life-conscious			
To attract heterosexual sight is my favorable feeling	0.643	11.21	27.27
I yearn towards the lifestyles in developed countries	0.833		
I yearn towards romantic life	0.827		
Factor 3: Fashion-conscious			
I prefer fashion to practicality	0.623	7.11	34.38
I like to keep up with latest fashion	0.770		
I am a pioneer to buy the newest technical products	0.748		
Factor 4: Career-conscious			
I place a lot of hope on my personal career	0.794	5.71	40.08
Women should have personal career like men	0.758		
To achievement, I would like to work overtime	0.564		
Factor 5: Price-conscious			
I usually compare the price in several shops before shopping	0.741	5.08	45.16
I usually choose to buy the cheapest products	0.783		
I watch my budget very carefully	0.692		
Factor 6: Family-conscious			
Women's main role is to make a happy family	0.563	4.46	49.62
My family is more important to me than my career	0.808		
I like spending my time with my family	0.743		
Factor 7: Impulse-conscious			
Sometimes I like to buy something I don't need	0.814	4.29	53.91
I often do things on the spur of the moment	0.825		
Factor 8: Financing-conscious			
The risk of stock and shares to me is great	0.826	4.21	58.12
I prefer to deposit it in the bank if I have surplus money	0.776		
Factor 9: Money worship-conscious			
I can give up leisure time to earn more money	0.655	4.01	**62.12**
Money is the optimal standard to weigh up success	0.795		

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 6 iterations.

Cluster analysis was performed next. It was used to group respondents into life pattern segments based on their factor scores. Because of the large number of respondents, it was not possible to apply hierarchical clustering methods. Instead, *K-means cluster analysis* was used. In this way, homogeneous groups or clusters of respondents who are relatively homogeneous within a cluster center while heterogeneous to other cluster centers could be identified.

Cluster solutions for five, ten, or eleven clusters were then compared in selecting the 'best' cluster solution. In doing so, the considerations were based on two criteria: (1) How well does each factor cluster the sample? (2) How interpretable is the cluster solution?[79] A four-cluster solution was finally accepted. The cluster scores for the four cluster centers are given in Table 3-12.

Table 3-12: Cluster Centers Scores on the Nine Factors

	Cluster 1	**Cluster 2**	**Cluster 3**	**Cluster 4**
	Wealth oriented (n=16,671)	Tradition oriented (n=20,970)	Status oriented (n=16,894)	Fashion oriented (n=15,281)
Ad-conscious	0.34	-0.02	-0.29	**0.53**
Opening life-conscious	**0.56**	**-0.42**	-0.27	0.40
Fashion-conscious	0.39	-0.02	0.39	**0.59**
Career-conscious	0.12	0.32	**0.53**	**-0.56**
Price-conscious	-0.43	**0.44**	-0.18	0.47
Family-conscious	0.27	**0.70**	**0.42**	-0.46
Impulse-conscious	0.35	-0.10	0.33	**0.51**
Financing-conscious	**-0.51**	**0.44**	**-0.46**	0.41
Money worship-conscious	**0.75**	**-0.32**	0.35	0.01

The first cluster consists of 16,671 respondents whose scores are high positive on "Money worship-conscious" and "Opening life-conscious", and high negative on "Financing-conscious". The life pattern of these respondents was labeled *"Wealth oriented"*. The second cluster is made up of 20,970 respondents, the largest group, whose scores are high positive on "Family-conscious", "Price-conscious" and "Financing-conscious", and high negative on "Opening life-conscious" and "Money worship-conscious". Their life pattern was called *"Tradition oriented"*.

The third cluster has 16,894 respondents and high positive scores on "Career-conscious" and "Family-conscious", and high negative scores on "Financing-conscious". *"Status oriented"* is their main life pattern. The fourth cluster consists of 15,281 respondents, whose scores are high positive on "Fashion-conscious", "Ad-conscious" and "Impulse-conscious", and high negative on "Career-conscious". *"Fashion oriented"* is the label given to this group.

[79] Wei, R. (1997), p.267.

Table 3-13 displays the accuracy of this life pattern based classification of urban Chinese consumers proofed by *discriminant analysis*. As one can see, 16,123 of 16,671 respondents in cluster 1 were classified correctly; the correct-classification percentage is 96.7. Correspondingly, the correct-classification percentage is 97.8 in cluster 2, 96.4 in cluster 3 and 97.2 in cluster 4. As a whole, 67,772 of 69,816 respondents were classified correctly into clusters; the average correct-classification percentage is 97.1. This indicated that the grouping is reliable.

Table 3-13: Classification Result of Urban Chinese Consumers in four Life Patterns

Cluster	Number of respondents	Respondents classified correctly	Accuracy of correct classification (%)	Percentage of all respondents (%)
Cluster 1	16,671	16,123	96.7	23.9
Cluster 2	20,970	20,509	97.8	30.0
Cluster 3	16,984	16,285	96.4	24.2
Cluster 4	15,281	14,855	97.2	21.9
Total	*69,816*	*67,772*	*97.1*	100

These four clusters can be described verbally as follows:

Cluster 1: Wealth oriented consumers

- They are money worship oriented, and advocate money uppermost. They can give up leisure time to earn more money.
- They prefer opening life and yearn towards the life styles of Western people.
- They are sometimes impulsive to consumption in order to show off their wealth. They also reveal their success with famous brands.
- They especially regard “Face” (one of Chinese culture values) as an important reputation.

Cluster 2: Tradition oriented consumers

- They represent the largest group of urban Chinese consumers. They are conservative, and if they have money, they save it without doing investments such as stocks. They prefer practicality over fashion and emphasize job security.
- They are family conscious. They think more of their families than their careers. Watching TV at home is their main leisure pastime.
- They are price conscious. They usually buy the cheaper products and watch their budget carefully, so domestic products are their preferred choice compared to expensive foreign products.
- They keep to traditional Chinese cultural values for personal activity, for example, they are inclined to mean and harmony with others.

Cluster 3: Status oriented consumers

- ✧ They work hard on achieving success in their career. They pay more attention to their personal careers, and take pursuit of professional advancement as their chief or sole aim. They hope to get to the very top in their career and command others. They have a high level of self-confidence and choose to pursue a life of challenge, novelty and change.
- ✧ They are decisive and independent, but not easily affected by advertisement and others' opinions.
- ✧ They prefer famous brands and show their status by purchasing foreign brands. Compared with consumers in other groups, they are lower sensitive on price.
- ✧ Chinese culture value of *Wei* (position, status) roots in their minds.

Cluster 4: Fashion oriented consumers

- ✧ They wish to follow fashions and to pursue a fancy and distinctive lifestyle. They like to try new brands and new products. They prefer fashionable to practical.
- ✧ They are easily affected by advertisement and buy sometimes impulsively. They are not oriented towards restraints and routines, and are not conservative conscious.
- ✧ Although they like to keep up with the latest fashion, they are generally price-conscious. Therefore, they are the largest group that buys shoddy brand names.
- ✧ Even though they still preserve some traditional Chinese culture values, longing for larruping personal activities and individualism are their distinct values.

According to the results of a Chi-square test, p values of age, gender, education and occupation are all less than .001. That means there are significant differences among the four life pattern groups in age, gender, education and occupation (see Table 3-14).

Table 3-14: Results of a Chi-square Test

	Pearson Chi-Square	df	Asymptotic Significance (2-sided)
Age	1721.357	12	.000
Gender	1036.359	3	.000
Education	1060.92	9	.000
Occupation	676.1985	15	.000

TGI was also used to test group differences along various dimensions, and brought the following results: Wealth and Fashion oriented consumers are younger than tradition and status oriented consumers. Male consumers are more prone to wealth and status. Education levels of wealth and status oriented consumers are higher. Governors are mostly oriented by wealth and status in life patterns; managerial personnel in enterprises/companies are similar to governors, but they are more status and fashion oriented. People in a retired, unemployed, or laid-off situation including housewives are the largest group of tradition oriented life patterns, the next groups are blue-collar workers and professionals. Students, the new generation of China, strongly express their preference to wealth and fashion; to the contrary, they are impassive to status. The more detailed characteristics of each group are shown in Table 3-15.

Table 3-15: Life Patterns and Demographics (TGI)

Demographic variables	Total N=70648	Wealth (n=16671)	Tradition (n=20970)	Status (n=16894)	Fashion (n=15281)
	%	TGI	TGI	TGI	TGI
Age					
15-24	24.9 %	**131.2**	81.8	63.4	**118.9**
25-34	27.4 %	93.3	90.9	98.1	103.3
35-44	21.4 %	87.1	98.9	**115.6**	103.5
45-54	14.6 %	87.0	**108.8**	**127.6**	102.6
55-64	10.5 %	99.3	**109.6**	**133.3**	94.5
Gender					
Male	51 %	**103.5**	84.8	**118.3**	96.2
Female	49 %	96.3	114.6	82.4	104.0
Education					
Junior high school and less	31.4 %	89.4	**112.4**	61.2	96.0
Senior high school / secondary technical school	41.6 %	101.6	**109.4**	77.7	**111.8**
College	15.3 %	**108.3**	101.3	**100.1**	**109.7**
University and more	10.3 %	**127.2**	94.2	**127.1**	104.1
Occupation					
Governors	5.4 %	**129.3**	92.5	**120.6**	97.7
Managerial personnel in enterprises/companies	9.3 %	102.4	104.4	**122.8**	**102.8**
Professionals	13.4 %	114.3	**107.1**	87.9	99.8
Blue-collar workers	33.5 %	85.0	**115.2**	82.4	**102.2**
Self-employed	5.0 %	84.3	94.0	98.1	97.3
Free vocation	1.6 %	83.0	103.4	89.2	98.6
Students	13.7 %	**144.9**	95.7	50.8	**125.6**
Others (unemployed, laid-off, retired, etc)	18.2 %	79.3	**122.5**	84.1	92.6

Comparable to *TGI* analysis, *analysis of variance* (*ANOVA*) was also performed among the four groups in order to explore their differences. The results shown in Table 3-16 are similar to the results obtained by *TGI*. Wealth and fashion oriented consumers are younger; the mean of wealth and status is closer to male than female consumers, etc.

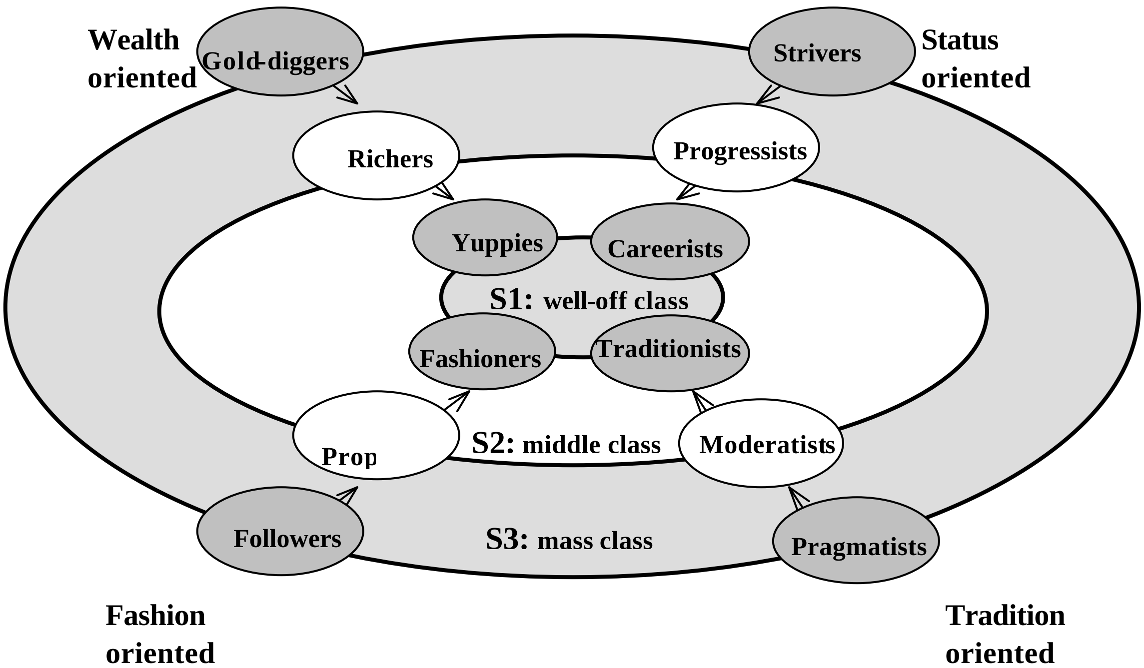
Table 3-16: Life Patterns and Demographics (ANOVA)

	Age	Gender	Education
Wealth	2.43	1.47	2.15
Tradition	2.57	1.58	1.85
Status	2.88	1.42	2.10
Fashion	2.46	1.51	2.08
Total	2.58	1.49	2.05
Significance	P<0.001	P<0.001	P<0.001

Age categories: 1=15-24; 2=25-34; 3=35-44; 4=45-54; 5=55-64. Gender categories: 1=male; 2=female. Education categories: 1= Junior high school and less; 2=Senior high school/secondary school; 3=College; 4=University and +.

Based on social stratifications and life patterns, respondents were finally classified into 12 segments as shown in Figure 3-9.

Figure 3-9: Segments of urban Chinese consumers



The location of segments on the same circle represents that they belong to the same social stratification; four orientations indicate four different life patterns. Among them, arrows mean that segments in the lower social stratifications long for upgrade to the higher social stratifications of the same life pattern. Segments in the first social stratification are generally taken as the reference groups for other segments, and as their imitating models.

The detailed percentages of the segments are displayed in Table 3-17.

Table 3-17: Percentages of Identified Segments

	Wealth oriented	**Status oriented**	**Tradition oriented**	**Fashion oriented**	**Total**
S1	***Yuppies*** 5.2 %	***Careerists*** 3.5 %	***Traditionists*** 6.4 %	***Fashioners*** 4.4 %	19.5 %
S2	***Richers*** 8.7 %	***Progressists*** 7.6 %	***Moderatists*** 10.3 %	***Propellents*** 7.4 %	34.0 %
S3	***Gold-diggers*** 10.0 %	***Strivers*** 13.1 %	***Pragmatists*** 13.3 %	***Followers*** 10.1 %	46.5 %
Total	23.9%	24.2%	30.0%	21.9%	100%

3.7 Step 8: Description/Profile of Market Segments

3.7.1 General Description of Market Segments

Based on the results of the previous analyses, the identified twelve market segments can be described in general as follows:

Yuppies (5.2 %): *Oriented by money worship; higher social stratification.*

Yuppies are mostly business owners and those employed in private enterprises. Their objectives are straightforward: money is the optimal standard to measure success. They yearn towards the lifestyles in developed countries. They are highly insensitive to price and favor premium products; the international famous brand products are their favorites to show off to their nobles.

Careerists (3.5 %): *Oriented by status; higher social stratification.*

Careerists generally hold the leadership position in enterprises/companies or governments. They have goal-oriented lifestyles that center on career and go after rights. They are decisive, self-confident and rational, and are insusceptible to others' opinions. They prefer reputable products, especially foreign brand products that demonstrate their success and status.

Traditionists (6.4 %): *Oriented by tradition; higher social stratification.*

Traditionists are successful and conventional people. They are the largest group in the first social stratification. They strongly appreciate tradition and respect rules and authority. They are fundamentally conservative and slow to change. They pay more attention to their family relationship. Though they are also in the first social stratification like yuppies and careerists, they don't care about fashion or trends. Instead they choose familiar products and prefer high quality established brands, such as a good quality domestic brand.

Fashioners (4.4 %): *Oriented by fashion; higher social stratification.*

Fashioners are successful and fashionable people with abundant resources. They are the leaders of fashion. Quite the reverse with traditionists, they are modern and the most receptive to new ideas and technologies. They fancy the romantic life; attracting the attention of others delights them. Their purchases reflect their unique tastes for upscale and niche products, but sometimes they make impulsive purchases as well. The emergence of fashioners challenges the traditional cultural values while simultaneously reflecting the social progress of this group.

Richers (8.7 %): *Oriented by money worship; middle social stratification.*

Richers are also oriented towards money worship like yuppies, but only in the second social stratification. They have relatively lower resources compared with yuppies. For the purpose of upgrade, they make great efforts to earn good money. They also favor prestigious products and emulate the purchases of yuppies, although they are more concerned with prices. They normally achieve a balance between luxury products and budget items.

Progressists (7.6 %): *Oriented by status; middle social stratification.*

Progressists are the people who desire status like careerists, but with middle social stratification having not reached their goals yet. Most of them are ordinary white collar staff. They do their utmost to become more like careerists. They are unconventional and active, seeking the opportunities to make a mark in their careers. They prefer value to luxury, so they generally buy averagely priced products of average quality. In the past, some progressists bought fake famous brands to keep up their images.

Moderatists (10.3 %): *Oriented by tradition; middle social stratification.*

Moderatists are deeply impacted by Chinese traditional culture values with mean thought of Confucius. They are the largest group in the second social stratification. They normally express neither a very positive nor very negative attitude towards different affairs. Moderate is their most prominent characteristic. They are used to speaking and acting cautiously. They are seldom complain about products which do not meet their expectations. They also choose familiar and established products.

Propellents (7.4 %): *Oriented by fashion; middle social stratification.*

Propellents play the important role of a connecting link between fashioners and followers in fashion spread. Fashioners create the fashion with the intention of selling their product to the upper class market which is limited in size. Propellents like to imitate and keep up with the latest fashion trends created by fashioners, but not everyman can afford to this kind of luxury expenditure. For example, they want to purchase the identical trends in clothing at lower costs. On the one hand, propellents propel the spiry fashion into prevalence; and on the other hand, such a consumption psychology as pursuing the lastest fashion with price concerns breeds fake products. Propellents are easily affected by advertising, especially those made by a celebrity.

Gold-diggers (10.0 %): *Oriented by money worship; lower social stratification.*

Gold-diggers are the people who worship at the shrine of Mammon, but have no money actually. They are in the lower social stratification. They dream of one day becoming rich, so they take risky investments when they have surplus money. Their family concept is relatively weak. Becoming richers is their goals They are often impulsive consumers, yet they are independent consumers not easily influenced by advertising. They choose products at will. They sometimes buy expensive products when they feel confident about their future.

Strivers (13.1 %): *Oriented by status; lower social stratification.*

Strivers are second only to pragmatists in quantity. They are more concerned about their job performance than the money that it earns them. They are concerned about the opinions and approval of others. Many see themselves as having a job rather than a career, with lack of skills and focus preventing them from moving ahead. They are active consumers, but their economies are not well-to-do and they show concern for price. Therefore, they tend to buy cheaper products including fake famous brand products especially in clothing.

Pragmatists (13.3 %): *Oriented by tradition; lower social stratification.*

Pragmatists are the largest segment in all of the respondents. They emphasize practicality in consumption but not fashion or vanity. They think working is the means of making living. Their life attitudes lean towards traditional ideas. As a result of their limited economic level, their consumption behaviors are chary. They are sensitive to price change, so they generally compare the price in different shops before purchase, and then buy the cheapest. They are apt to buy domestic products.

Followers (10.1 %): *Oriented by modern; lower social stratification.*

Though they are in the lower social stratification, their life consciousnesses tend to seek new and fashionable things. They prefer fashionable to practical. Cheaper fashionable products attract their attention most often. Whether the purchase is practical or not, they usually buy. They are the largest group to consume imitated products. As consumers, they are as impulsive as their financial circumstances will allow. They want to save, but it’s very difficult for them. To get a better understanding of what makes the identified twelve market segments tick, whether and how they can be appealed with new products, which preferences they have, what type of message they are most likely to respond, etc., a further segment profiling has been done. By analyzing the relationships between segment membership on the one hand and

- education,
- occupation,
- age,

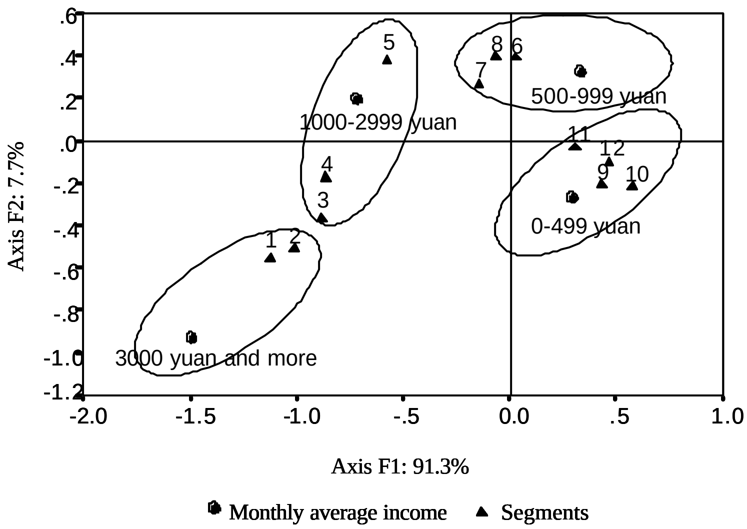
- sex,
- media usage,
- preference to read *"Reference News"*,
- attitudes towards TV-advertising,
- consumption of durable goods,
- drinking consumption composition,
- beverage consumption frequency,
- consumption of bath articles,
- preference to social insurance system, and
- possession of bank cards

on the other hand.

3.7.2 The Relationship between Segment Membership and Personal Monthly Income

Based on the results of a correspondence analysis, Figure 3-10 indicates correspondence relationship between personal monthly income and segment membership.

Figure 3-10: Correspondence Relationship between Segment Membership and Monthly Income



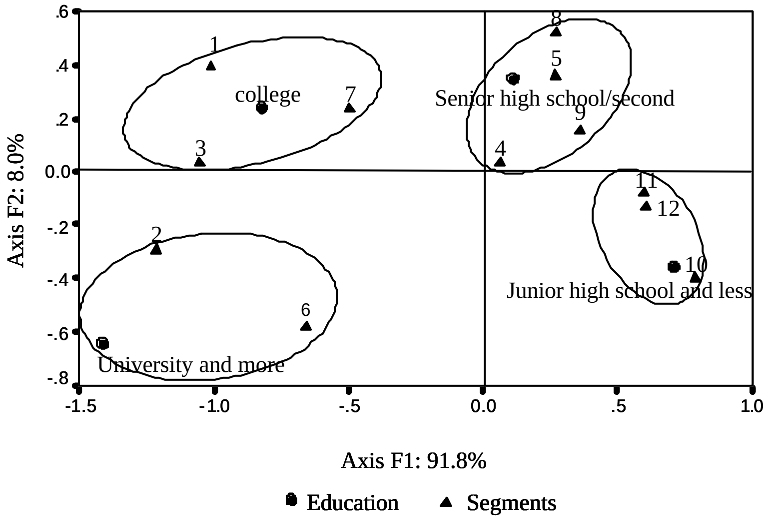
Segments	Description
1	Yuppies
2	Careerists
3	Traditionists
4	Fashioners
5	Richers
6	Progressists
7	Moderatists
8	Propellents
9	Gold-diggers
10	Strivers
11	Pragmatists
12	Followers

Axis F1 and F2 account for 99 % of total information, and interpret 91.3 % and 7.7 % respectively. Therefore, axis F1, that is x-coordinate, is the main distinguishing dimension. Segments 1 and 2 are closer to high income (3,000 Yuan and more); segments 3, 4 and 5 are closer to 1,000-2,999 Yuan on the main distinguishing dimension of axis F1; segments 6, 7, and 8 are closer to 500-999 Yuan, while segments 9, 10, 11 and 12 are closer to the low income of 0-499 Yuan.

3.7.3 The Relationship between Segment Membership and Education

Figure 3-11 indicates correspondence relationship between education and segment membership.

Figure 3-11 Correspondence Relationship between Segment Membership and Education



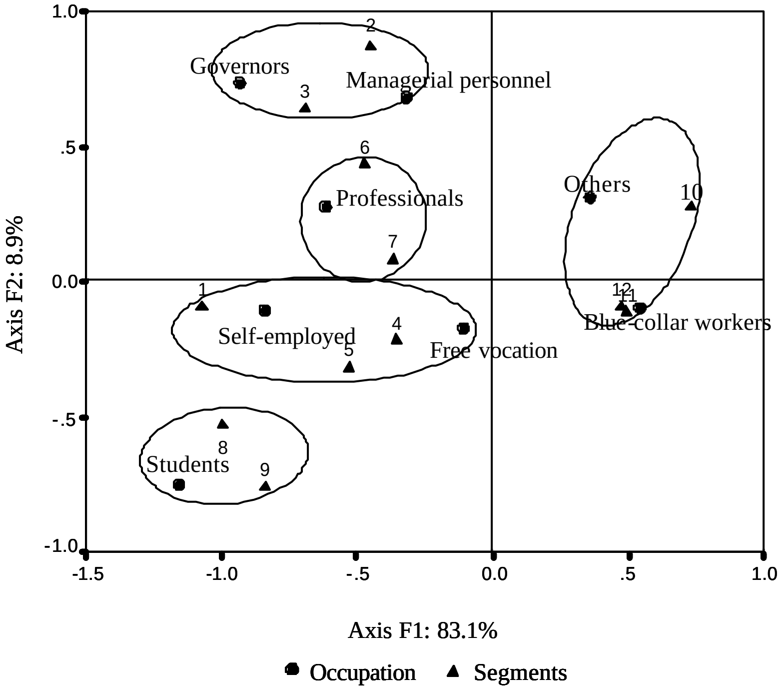
Segments	Description
1	Yuppies
2	Careerists
3	Traditionists
4	Fashioners
5	Richers
6	Progressists
7	Moderatists
8	Propellents
9	Gold-diggers
10	Strivers
11	Pragmatists
12	Followers

Axis F1 and F2 account for 99.8 % of total information, and interpret 91.8 % and 8.0 % respectively. Segments 2 and 6 are closer to "university and more"; segments 1, 3 and 7 are closer to "college"; segments 4, 5, 8 and 9 are closer to "senior high school/second technical school"; and segments 10, 11 and 12 are closer to the poorly educated of "junior high school and less".

3.7.4 The Relationship between Segment Membership and Occupation

Figure 3-12 indicates correspondence relationship between occupation and segment membership. Axis F1 and F2 account for 92.0 % of total information, and interpret 83.1 % and 8.9 % respectively. F1 was therefore considered as main dimension. The occupations are distributed in each segment, but the core occupations of the segments are different. For instance, governors and managerial personnel are the core parts of segments 2 and 3; professionals are the core part of segments 6 and 7; blue-collar workers and others (unemployed, laid-off, retired etc.) are the core parts of segments 10, 11 and 12; self-employed and free vacation are the core parts of segments 1, 4 and 5; and students are the core parts of segments 8 and 9.

Figure 3-12 Correspondence Relationship between Segment Membership and Occupation



Segments	Description
1	Yuppies
2	Careerists
3	Traditionists
4	Fashioners
5	Richers
6	Progressists
7	Moderatists
8	Propellents
9	Gold-diggers
10	Strivers
11	Pragmatists
12	Followers

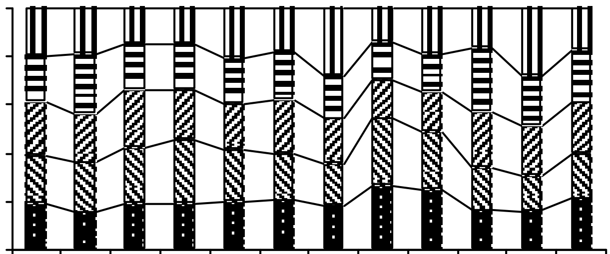
3.7.5 The Relationship between Segment Membership and Age

Figure 3-13 represents the results of a cross tab analysis between age and segment membership. Data denotes the percentage of respondents at the same age range in each segment; histogram shows the relative percentage of respondents at the different age ranges in the same segment.

From the data in Figure 3-13 can be read, that the young respondents under 34 years old trend to segment 8 ("*Propellents*") and segment 9 ("*Gold-diggers*"); the respondents in the middle age (35-54) are the main bodies in segment 10 ("*Strivers*") and segment 12 ("*Followers*"). The elderly respondents (55-64) are prone to segment 11 ("*Pragmatists*") and segment 7 ("*Moderatists*").

Figure 3-13: Results from a Crosstabulation of Segment Membership and Age

Chi-square = 2484 df = 44 P = 0.000



	1	2	3	4	5	6	7	8	9	10	11	12
55-64	4.0	3.2	3.1	2.6	8.0	7.4	13.5	6.5	10.6	11.4	19.9	9.7
45-54	3.8	4.0	4.2	3.5	7.2	8.4	8.5	6.8	8.6	18.1	14.8	12.0
35-44	4.4	3.3	5.2	3.7	7.3	9.1	9.0	7.4	9.0	15.5	14.5	11.5
25-34	4.0	3.4	4.9	4.8	8.3	8.0	8.2	12.4	13.4	12.0	10.0	10.5
15-24	3.9	2.5	4.0	3.5	7.7	8.5	9.0	12.0	13.5	11.1	11.5	11.7

15-24 25-34 35-44 45-54 55-64

Segments	Description
1	Yuppies
2	Careerists
3	Traditionists
4	Fashioners
5	Richers
6	Progressists
7	Moderatists
8	Propellents
9	Gold-diggers
10	Strivers
11	Pragmatists
12	Followers

The histogram shows, that the percentages of respondents under 34 years old in segment 8 (“Propellents”) and segment 9 (“Gold-diggers”) almost account for 60 %; in segment 11 (“Pragmatists”), the percentage of respondents aged above 45 is close to 50 %. Of them, the respondents aged 25-34 are the greatest group in segment 4 (“Fashioners”) and segment 5 (“Richers”). Besides, the percentages of respondents at ages 35-44 in segment 1 (“Yuppies”) and segment 6 (“Progressists”) are the highest respectively.

3.7.6 The Relationship between Segment Membership and Sex

In old China, the idea of regarding men as superior to women was ineradicable. With the ongoing social progress among females and the rise in feminism, a Chinese-woman’s status has greatly improved. . The proverb *“Women are half of heaven”* further exemplifies the equality between women and men in China. Figure 3-14 shows the relationship between sex and segment membership. The total ratio of male to female is 51.1 : 48.9.

Among the figures on the left, the percentage of male respondents in segment 11 (“*Pragmatists*”) is higher than it is in others, the same data is reflected in the female respondents of segment 11.. Moreover, the ratio of male to female (in the right table) in segment 11 is 50.4 : 49.6, which is similar with the ratio of the total sample (51.1 : 48.9). To male and female, segment 10 (“*Strivers*”) all rank in second place, and segment 7 (“*Moderatists*”) in fourth place.

Figure 3-14: Relationship between Segment Membership and Sex

Sex

Chi-square=1075.610, df=11, P=0.000

Male

Segment	Count	%
1	1942	2.75
2	1093	1.55
3	2742	3.88
4	1352	1.92
5	3289	4.61
6	2901	4.11
7	**3604**	**5.10**
8	2480	3.51
9	3720	5.27
10	**4705**	**6.66**
11	**4765**	**6.75**
12	3520	4.98
Total	36085	51.1%

Female

Segment	Count	%
1	1662	2.35
2	1368	1.94
3	1835	2.60
4	1741	2.47
5	2920	4.13
6	2465	3.49
7	**3615**	**5.12**
8	2784	3.94
9	3381	4.79
10	**4417**	**6.25**
11	**4697**	**6.65**
12	3670	5.20
Total	34553	48.9%

Segment	Description	Male : Female (%)	
1	Yuppies	53.9	46.1
2	**Careerists**	**44.4**	**55.6**
3	**Traditionists**	**59.9**	**40.1**
4	Fashioners	43.7	56.3
5	Richers	52.7	47.3
6	Progressists	54.1	45.9
7	**Moderatists**	**49.9**	**50.1**
8	Propellents	47.1	52.9
9	Gold-diggers	52.4	47.6
10	**Strivers**	**51.6**	**48.4**
11	**Pragmatists**	**50.4**	**49.6**
12	Followers	49.0	51.0

The percentages of male respondents in wealth and status oriented segments are generally higher than that of female, while female respondents reveal their tendency to the fashion oriented segments. It is noticeable that the percentage of female respondents in segment 2 ("*Careerists*") exceeds that of male respondents with 11.2 %. "*Careerists*" are status oriented and in the first social stratification. Women in this segment are usually successful in their careers. They tend to have greater ambitions than their male counterparts because of their hard-earned status and successful careers.

Other results are noticeable. The percentage of male respondents in segment 3 ("*Traditionalists*") reaches almost 60 %. This result is widely divergent since conventional thinking is that Chinese women are very traditional even though the roles of Chinese women in society are continuing to grow in importance. Women in the first stratification attempt to innovate; whereas, men in this segment try to regress traditional family ideas, traditional ethical ideas, and so on.

3.7.7 The Relationship between Segment Membership and Media Usage

The differences among segments were also explored by media usage patterns, as shown in Table 3-18 and Table 3-19. Respondents reading newspapers more than four times per week were defined as high frequency group, two to four times were defined as medium, less than two times were set to low frequency group.

Light users of internet are those respondents surfing less than five hours per week, medium users access internet from five to fifteen hours per week, exceeding fifteen hours per week are labeled heavy users. There remains 78.2 % of all respondents who have never accessed internet.

The time spent watching television is calculated from Monday to Thursday. When it is less than four hours in these four days, the time was assessed as less; from four to eight hours, the time was assessed as medium; more than eight hours, the time was considered as more.

TGI has been used to describe the differences among segments.

Table 3-18: Relationship between Membership to Segments 1-6 and Media Usage

	Total %	Yuppies TGI	Careerists TGI	Traditionists TGI	Fashioners TGI	Richers TGI	Progressists TGI
News paper							
High	37.1 %	**105.1**	**115.7**	**102.4**	101.7	**101.1**	96.7
Medium	30.6 %	97.5	85.8	96.7	**104.4**	100.8	94.2
Low	32.3 %	96.5	95.5	100.3	93.3	98.1	**109.4**
Internet							
Light	14.6 %	207.3	143.4	202.6	209.4	**131.3**	73.3
Medium	4.7 %	**262.2**	146.2	**276.0**	245.7	113.6	68.4
Heavy	2.3 %	247.8	**184.2**	258.7	**259.5**	110.7	**107.9**
Never	78.2 %	66.1	86.9	66.4	66.0	93.3	75.2
TV							
Less	43.5 %	**126.1**	100.1	**111.2**	**108.4**	**113.2**	94.6
Medium	46.1 %	88.4	**106.2**	100.2	100.9	96.1	107.4
More	7.5 %	58.6	99.6	72.6	84.7	85.9	**124.7**

Table 3-19: Relationship between Membership to Segments 7-12 and Media Usage

	Total %	Moderatists TGI	Propellents TGI	Gold-diggers TGI	Strivers TGI	Pragmatists TGI	Followers TGI
News paper							
High	37.1 %	88.5	95.2	**101.3**	99.2	87.2	**114.9**
Medium	30.6 %	**109.7**	93.8	97.5	**102.3**	**108.1**	96.8
Low	32.3%	104.0	**111.4**	100.9	98.7	107.0	85.9
Internet							
Light	14.6 %	**123.3**	117.1	72.3	30.1	57.1	55.0
Medium	4.7 %	119.3	98.5	49.0	21.9	51.7	39.1
Heavy	2.3 %	106.9	**131.4**	**109.9**	17.1	49.4	37.5
Never	78.2 %	93.8	97.0	52.9	**120.4**	**112.6**	**114.2**
TV							
Less	43.5 %	102.3	99.0	**107.5**	91.1	99.2	95.5
Medium	46.1 %	**107.9**	104.8	99.0	109.1	105.9	107.0
More	7.5 %	78.8	**114.8**	101.2	**134.4**	**107.2**	**121.8**

"Yuppies" and *"traditionalists"* prefer reading newspapers to watching TV, and they are medium users of internet. *"Careerists"* are both heavy users of the internet and high frequency readers of newspapers, and they are moderate television viewers. *"Followers"* and *"Gold-diggers"* also have high frequency to read newspapers. *"Richers"* and *"moderatists"* are light users of internet. But most of *"strivers"*, *"pragmatists"* and *"followers"* have never surfed internet; reversely, they spend more time watching TV.

3.7.8 The Relationship between Segment Membership and Preference to read "Reference News"

"*Reference News*" is a national newspaper sponsored by *Xinhua* news agency. It provides comments and information on foreign countries, including Taiwan, Macao and Hong Kong. Figure 3-15 illustrates the preference degree of consumer segments to read "*Reference News*" by relative penetrative ratio (RPR), which was calculated as follows:

$$\text{RPR} = f_{Ri} / [F_{Si} * \sum_{i=1}^{12} (f_{Ri} / F_{Si})] - mean$$

f_R : Amount of respondents who prefer to read "*Reference News*" in each segment,

F_{Si} : Total amount of respondents in each segment,

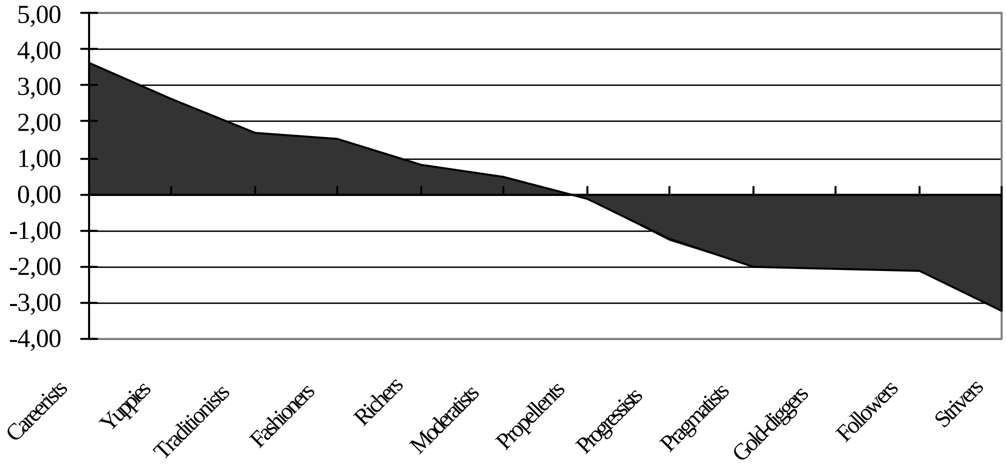
$$\sum_{i=1}^{12} f_{Ri} / [F_{Si} * \sum_{i=1}^{12} (f_{Ri} / F_{Si})] = 100,$$

mean = 100/12 = 8.33

In brief, if 100 respondents are divided into 12 groups averagely, the mean is 8.33 (100/12) in each group, in a mathematical view. The difference between respondents who prefer to "*Reference News*" per 100 respondents in each segment and 8.33 is just the RPR.

Considering the RPR of "*Reference News*", there are two different parts as shown in Figure 3-15. The RPR of *"careerists"* is the highest followed by *"yuppies"* and *"traditionists."* The *"moderatists"* are basically equal with the mean, while most of *"strivers"* and *"followers"* are cool to *"Reference News*".

Figure 3-15: Preference of identified Consumer Segments to read "Reference News"



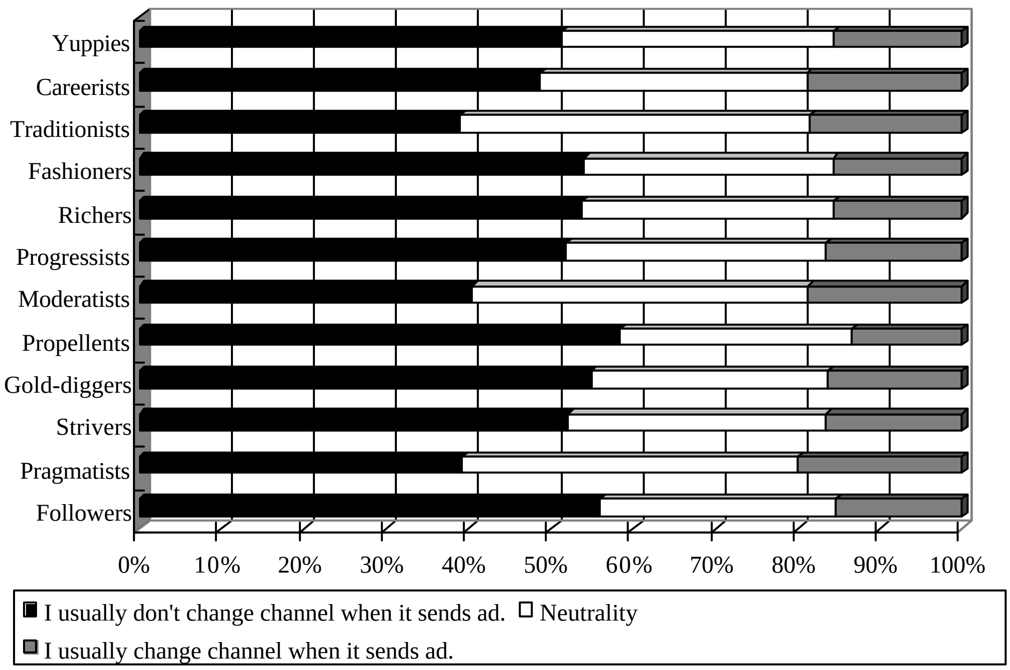
3.7.9 The Relationship between Segment Membership and Attitudes towards TV-Advertising

Generally, some TV-advertising is inserted intermittently in teleplay and telefilm. People have different reactions to that advertising. Figure 3-16 verifies the segment differences concerning zapping or not when advertising comes on the screen. There are three reactions: (1) usually change channel, (2) usually don't change channel, and (3) neutral action. The sum of these three reactions is 100 %, of course.

More than one-third of all segment members have a positive attitude towards TV-advertising, but especially the respondents oriented by fashion (*"Fashioners"*, *"Propellents"* and *"Followers"*) favor it very much, as the percentages of over 50 % show to us. Respondents oriented by wealth (*"Yuppies"*, *"Richers"* and *"Gold-diggers"*) take second place for the positive perception.

In comparison, respondents oriented by tradition (*"Traditionists"*, *"Moderatists"* and *"Pragmatists"*) show the most negative and neutral attitude towards TV-advertising. Respondents oriented by status have also a higher percentage to change channel when it sends advertising. Such interpretations, however, should be read with caution by marketers.

Figure 3-16: Attitudes of Segment Members towards TV-Advertising



3.7.10 The Relationship between Segment Membership and the Consumption of Durable Goods

Table 3-20 and Table 3-21 expound the consumption behavior of the identified 12 consumer segments relating to the consumption of selected durable goods. Data in parentheses indicates the purchase rate of foreign brands.

Table 3-20: Consumption Behavior of Consumer Segments 1-6 relating to Durable Goods

	Yuppies	Careerists	Traditionists	Fashioners	Richers	Progressists
Television**	99.4%	99.5%	99.4%	99.4%	99.0%	99.5%
Foreign brand	(41.9%)	(40.9%)	(39.5%)	(41.6%)	(30.6%)	(31.5%)
Refrigerator*	95.3%	95.2%	95.8%	95.8%	92.5%	92.7%
Foreign brand	(35.9%)	(38.0%)	(37.3%)	(39.9%)	(32.1%)	(31.5%)
Washing machine*	94.2%	93.8%	93.6%	95.2%	90.3%	90.6%
Foreign brand	(26.6%)	(25.0%)	(28.9%)	(25.9%)	(22.3%)	(21.7%)
Air conditioner*	69.4%	68.9%	68.9%	68.7%	52.3%	49.5%
Foreign brand	(33.7%)	(33.2%)	(34.1%)	(35.5%)	(28.4%)	(29.4%)
Computer*	64.9%	59.2%	63.0%	66.9%	21.2%	18.6%

	Yuppies	Career-ists	Tradi-tionists	Fashion-ers	Richers	Pro-gressists
Foreign brand	(12.1%)	(15.3%)	(5.9%)	(14.9%)	(13.7%)	(8.3%)
CD*	12.8%	11.0%	14.7%	13.7%	5.5%	4.9%
Foreign brand	(11.8%)	(10.0%)	(13.7%)	(12.6%)	(4.9%)	(4.3%)
Private car*	12.4%	11.8%	11.8%	12.1%	2.7%	2.2%

*ANOVA F-value is significant at p < .001 **ANOVA F-value is significant at p < .05

All of the twelve segments have high ownership (more than 80 %) of traditional durable goods, such as televisions, refrigerators and washing machines. Especially popular is the ownership of television sets indicated by the 95 % in each segment.

But in purchasing foreign brand television sets, there exist some differences, ranging from 22.9 % among "*pragmatists*" to 41.9 % among "*yuppies*" (in parentheses).

Table 3-21: Consumption Behavior of Consumer Segments 7-12 relating to Durable Goods

	Modera-tists	Propel-lents	Gold-diggers	Strivers	Pragma-tists	Follow-ers
Television**	98.8%	99.3%	98.0%	98.3%	97.5%	98.4%
Foreign brand	(32.7%)	(30.5%)	(25.2%)	(23.6%)	(22.9%)	(23.6%)
Refrigerator*	90.7%	92.2%	83.6%	82.5%	81.8%	84.5%
Foreign brand	(33.5%)	(32.0%)	(28.9%)	(28.2%)	(29.6%)	(27.6%)
Washing machine*	89.2%	90.8%	81.0%	79.7%	78.0%	82.0%
Foreign brand	(24.4%)	(22.8%)	(19.0%)	(17.1%)	(20.4%)	(18.4%)
Air conditioner*	49.0%	50.2%	33.0%	29.4%	31.5%	34.3%
Foreign brand	(32.3%)	(29.9%)	(27.4%)	(27.1%)	(30.1%)	(29.5%)
Computer*	21.8%	22.2%	5.7%	7.7%	6.1%	4.0%
Foreign brand	(5.9%)	(14.0%)	(3.5%)	(3.3%)	(3.1%)	(2.7%)
CD*	6.5%	5.6%	3.3%	1.9%	2.7%	3.0%
Foreign brand	(5.8%)	(4.9%)	(2.7%)	(1.6%)	(2.1%)	(2.8%)
Private car*	2.0%	2.6%	0.4%	0.4%	0.3%	0.3%

*ANOVA F-value is significant at p < .001 **ANOVA F-value is significant at p < .05

For other luxury items, such as air conditioners and compact disc players, ownership rates among the respondents in the first social stratification ("*yuppies*", "*careerists*", *"traditionists"* and *"fashioners"*) are several times those of the third stratification (*"gold-diggers"*, *"strivers"*, *"pragmatists"* and *"followers"*). Not surprisingly, circa 65 % of *"yuppies"* and *"fashioners"* possess computers, but this ratio decreases sharply to 4.0 % among *"followers"*.

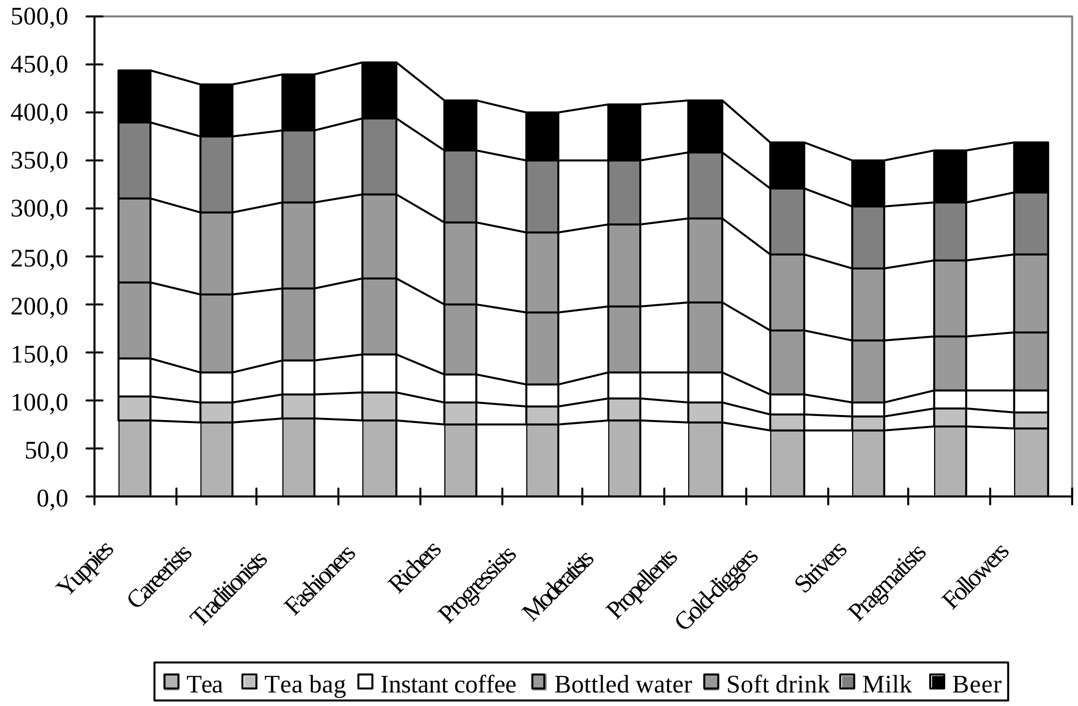
Besides, the increase of economy has motivated the development of private car ownership. Of the respondents in the first social stratification who are the main force to private car purchases, there is on average, about 12 % of respondents that have private cars. Even though this rate is far lower than those found in developed counties, the private car market is a mushroom market in China.

Respondents in the first social stratification generally prefer to purchase foreign branded goods, compared with other groups. But *"traditionists"* (in the first stratification) tend to buy domestic branded computers; their purchasing rate of foreign branded computers is just 5.9 %.

3.7.11 The Relationship between Segment Membership and Drinking Consumption Composition

In terms of drinking consumption, there are seven kinds of beverages listed including traditional Chinese tea, modern tea bag, imported instant coffee, new arisen bottled water, soft drinks and milk, as well as beer (see Figure 3-17).

Figure 3-17: Segment Membership and Drinking Consumption Composition



Note: Data from several statements and total percentage sums up to more than 100 %.

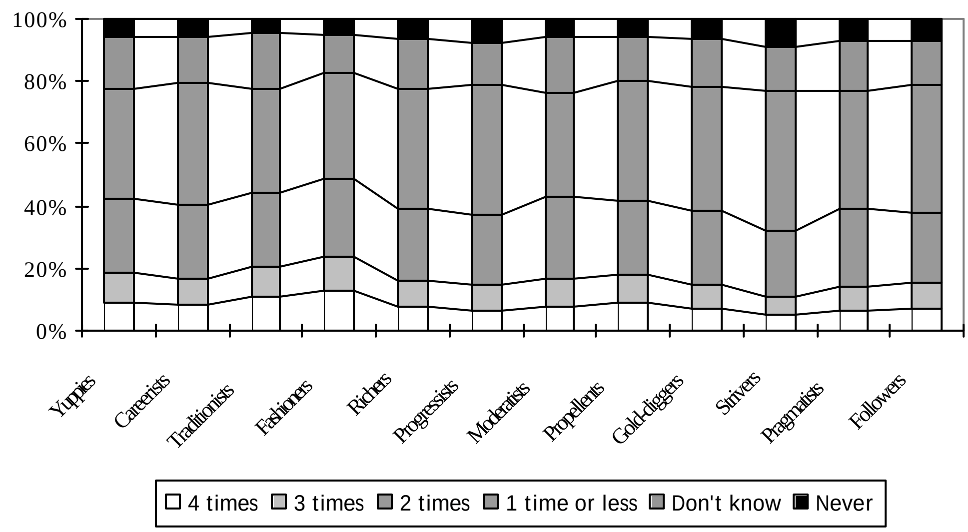
As a whole, drinking consumption shows a ladder tendency, that is, respondents in the first social stratification (*"yuppies"*, *"careerists"*, *"traditionists"* and *"fashioners"*) consume more drinks and those in the third social stratification (*"gold-diggers"*, *"strivers"*, *"pragmatists"* and *"followers"*) do less. Respondents in the second social stratification (*"richers"*, *"progressists"*, *"moderatists"* and *"propellants"*) take the middle place concerning drinking consumption. In addition, in different social stratifications, respondents oriented by wealth and fashion prefer to consume more drinks. Of them, total drinking consumption of respondents oriented by status is the lowest.

Obviously, tea is still a traditional popular drink. Respondents oriented by tradition prefer to drink tea. In comparison with tea, tea bags suffer from cold reception. Instant coffee and soft drinks are the favorites of the respondents oriented by fashion. Respondents oriented by wealth and status consume more bottled water and milk. There are no significant differences in beer consumption.

3.7.12 Relationship between Segment Membership and Beverage Consumption Frequency

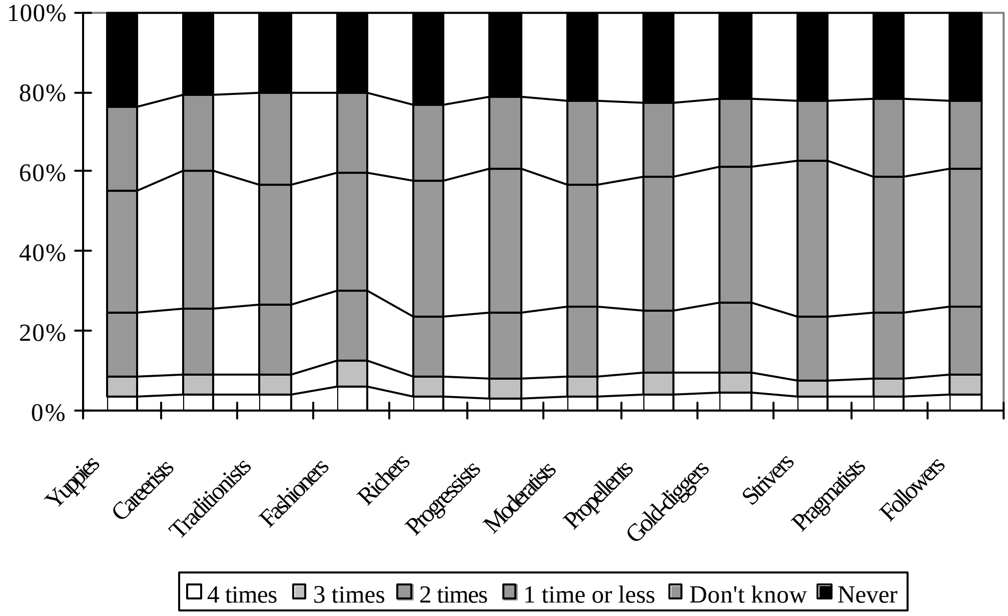
Consumption frequency per week of beverages are illustrated in the following figures, which consists of *Cola, Fizzwater*, *Ade* (juice), tea beverage (that is different with tea) and instant soft drink. In general, except for *"never"* and *"forgetting"* items, respondents oriented by fashion (*"fashioners"*, *"propellants"* and *"followers"*) in various social stratifications have been taking the first place for beverage consumption basically. Only the tea beverage consumption, in despite of the different characters between tea beverage and traditional tea, is still the favorite of respondents oriented by tradition (*"traditionists"*, *"moderatists"* and *"pragmatists"*).

Figure 3-18: Segment Membership and the Consumption Frequency of Cola



Cola is the most popular beverage as Figure 3-18 shows; only a few respondents have never drunk it. Consumption of *Fizzwater* (see Figure 3-19) is slight lower than that of *Cola*.

Figure 3-19: Segment Membership and the Consumption Frequency of Fizzwater



About half of the respondents have never consumed *Ade* (see Figure 3-20) or a tea beverage (see Figure 3-21); only a minority of respondents (about 20 %) consumes instant soft drinks, such as instant orange powder (see Figure 3-22).

Figure 3-20: Segment Membership and the Consumption Frequency of Ade

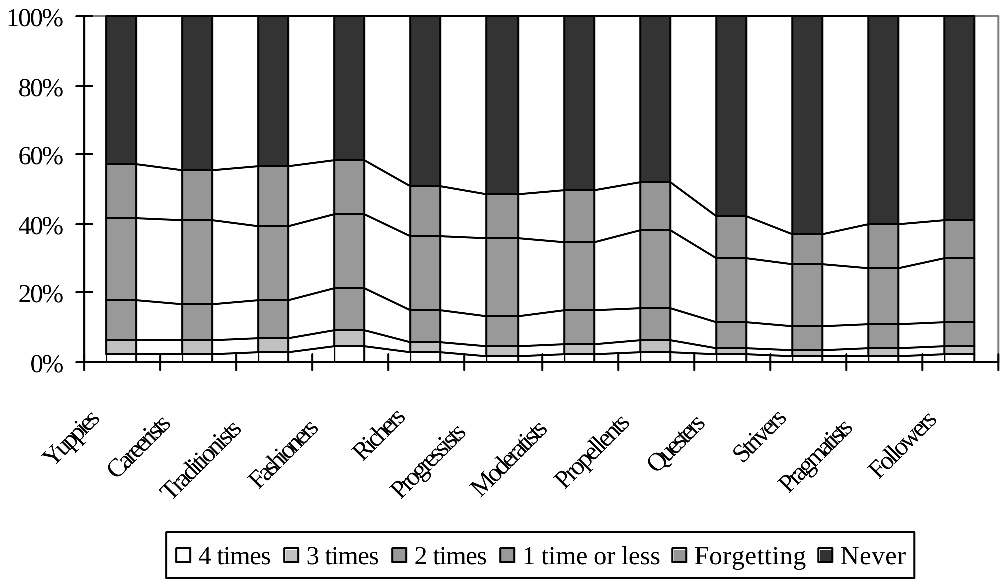


Figure 3-21: Segment Membership and the Consumption Frequency of Tea Beverage

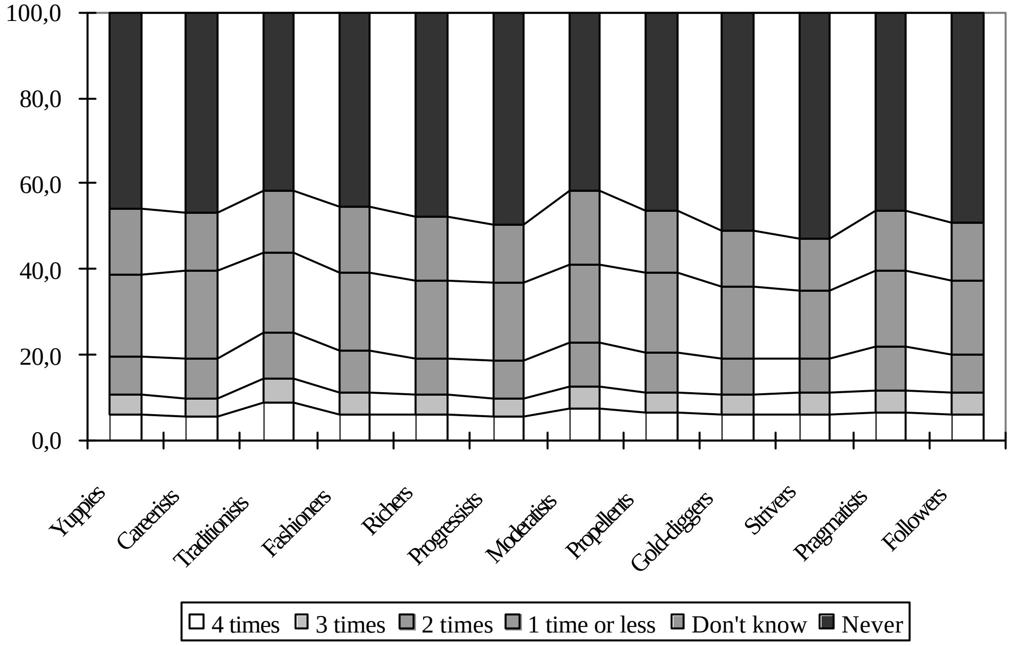
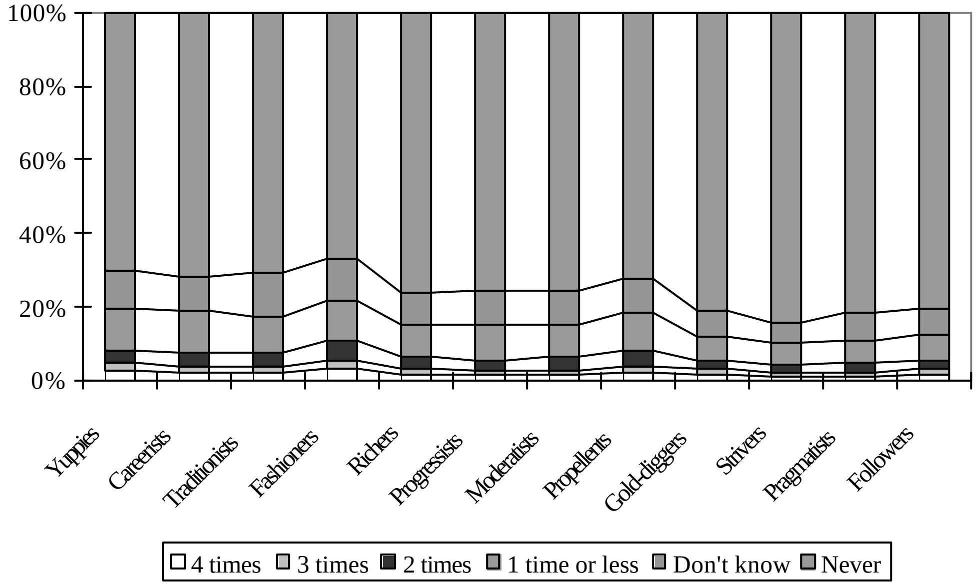


Figure 3-22: Segment Membership and the Consumption Frequency of Instant Soft Drinks



3.7.13 Relationship between Segment Membership and the Consumption of Bath Articles

In terms of fast moving consumer goods, besides drinking consumption, the consumption of bath articles, such as shampoo and bath lotion, was also observed.

According to the data, almost all of the respondents (more than 99 %) use shampoo in their daily lives. Moreover, foreign brand shampoos occupy the main market. More than 80 % of the respondents buy foreign brand shampoos (see Figure 3-23). There is not a marked difference in shampoo consumption between the groups, with the exception of the *"pragmatists"* who use fewer foreign brands.

The consumption of bath lotion is unlike that of shampoos. Nearly 80 % of the respondents in the first social stratification, *"yuppies," "careerists," "fashioners"* and *"traditionists,"* use bath lotion when they bathe, while only about 40 % of the respondents in the third social stratification, "gold-*diggers," "strivers," "pragmatists"* and *"followers,"* do so (see Figure 3-24). In accordance with their lifestyles, the respondents oriented by wealth, *"yuppies," "richers"* and *"gold-diggers,"* and fashion, *"fashioners," "propellents" and "followers,"*) prefer bath lotion.

Figure 3-23: Segment Membership and the Purchase of Shampoo Brands

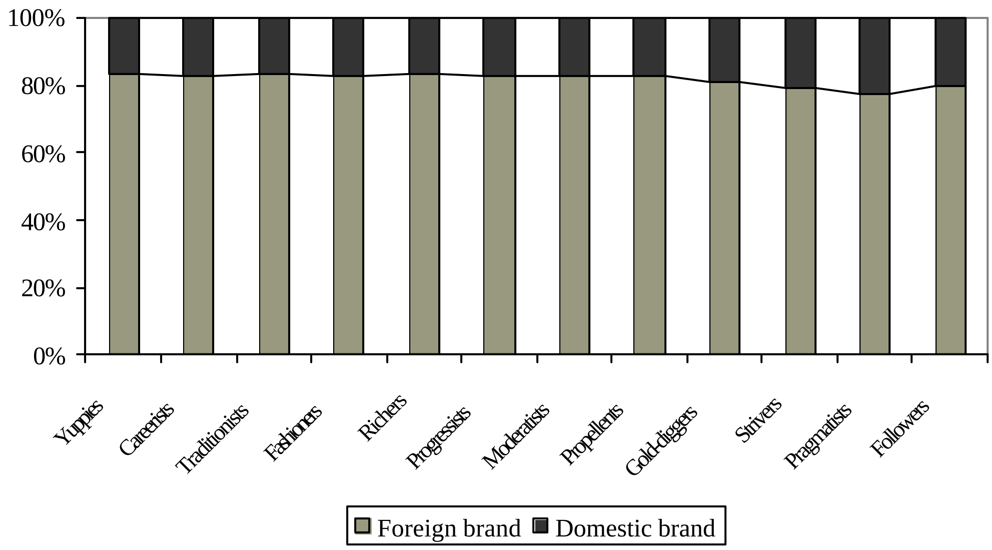
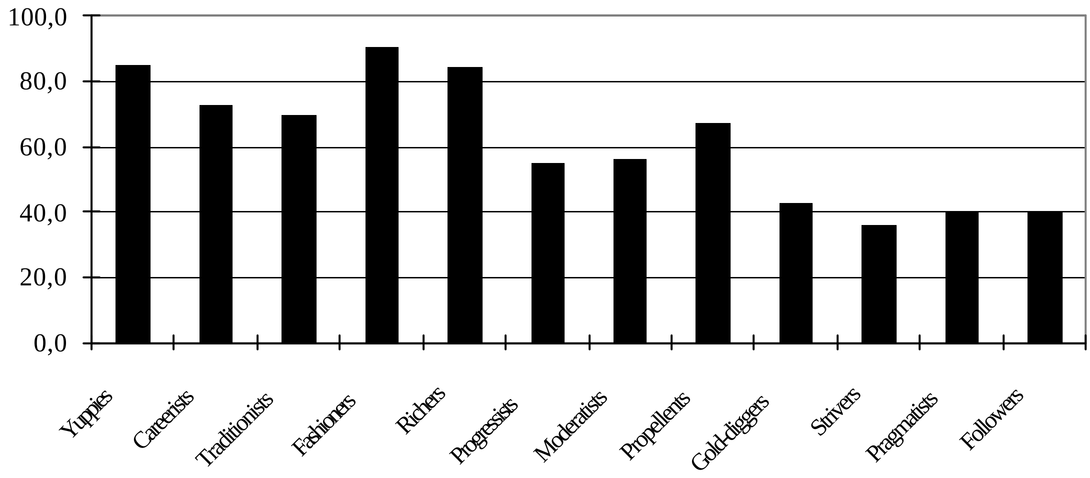


Figure 3-24: Segment Membership and the Consumption of Bath Lotion



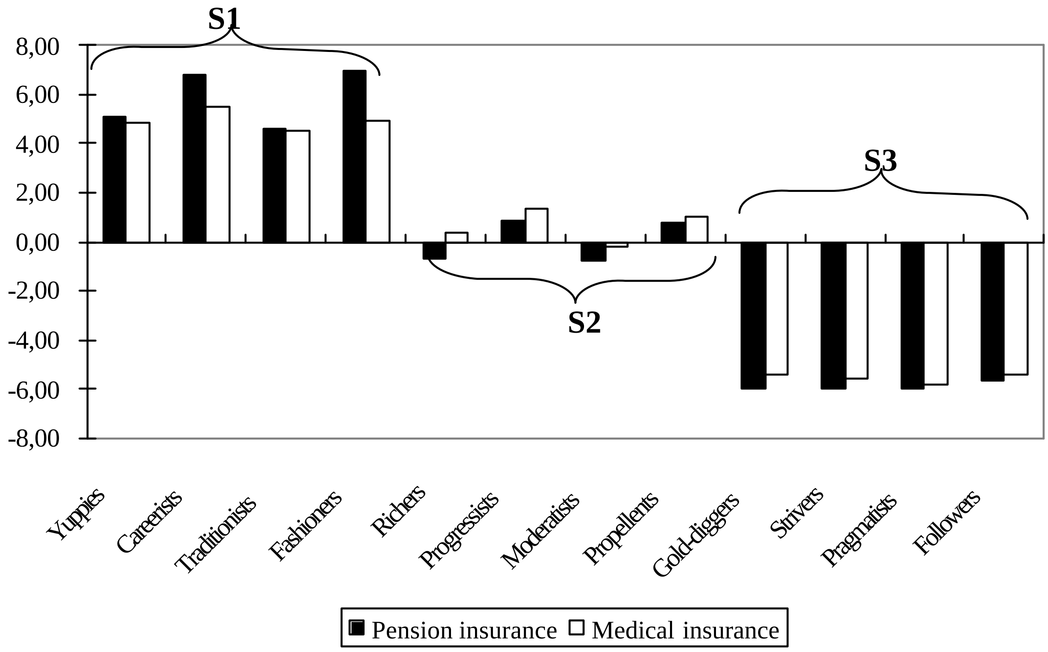
3.7.14 The Relationship between Segment Membership and the Preference to the Social Insurance System

The three most important sections of the social insurance system are the pension, as well as the medical and unemployment insurance system.[80] Since the establishment of the P. R. of China, pension insurance and medical insurance system have been weak points of government. In developed countries like Germany, the majority of its citizens have not only pension medical insurance, but other insurances made available to them. Yet in China, only a minority of people have the benefit of pension and medical insurances. At present, many foreign insurance companies are entering China. With the improvement of its living standards, the insurance industry be prosperous in China.

Figure 3-25 shows the preference of the identified consumer segments to pension insurance and medical insurance by *RPR (Relative Penetrative Rate)*. Definition and calculation formula of *RPR* have been mentioned in Chapter 3.7.8. There a clear trend to be recognized in Figure 3-25. Respondents in the well-off class (S1) prefer to spend premium buying insurance; the *RPR* of the respondents in the middle class (S2) is close to the mean; but most of respondents in the mass class (S3) have no budgets to buy insurance.

[80] Dong, K.Y. / Ye, X.F. (2003), p.423.

Figure 3-25: Preference of Segment Members to Insurances

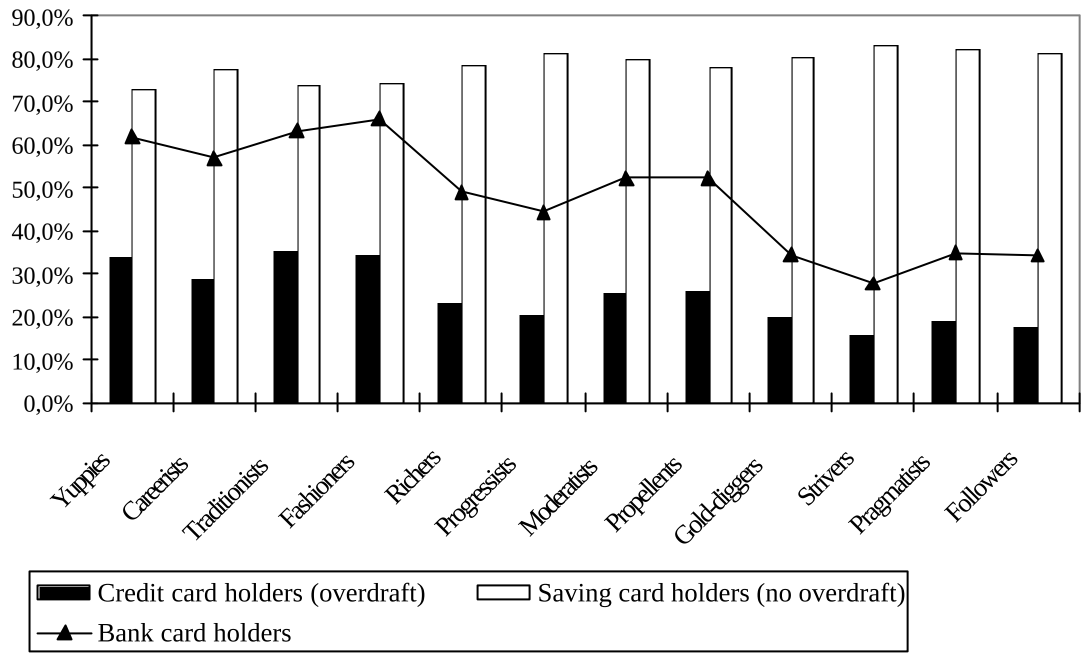


China's insurance systems desiderate improvement. Protecting the weak people is the responsibility of government and society. The phenomenon that the rich are getting richer and the poor are getting poorer should be adjusted.

3.7.15 The Relationship between Segment Membership and the Possession of Bank Cards

Figure 3-26 presents the possession situation of bank cards with regard to the identified 12 segments. The black curve illustrates the percentage of respondents holding bank cards in each segment. Bank cards are defined here as the summation of credit cards which can be overdrawn and saving cards which can not be overdrawn. Chinese savings has always been at a high level, even though the government decreased interest rates continually in the past. This situation connects with the imperfect social security system. People have no security sense for their future, for example, like abovementioned pension insurance and medical insurance, as well as unemployment insurance, most of people in the third social stratification have no insurance. They have to save money for their unpredictable future.

Figure 3-26: Segment Membership and the Possession of Bank Cards



Note: Data came from multi-selection statements, so the percentages sum up to more than 100%.

As a whole, the rate of people holding bank cards shows a downward trend from the first to the third social stratification. Among the bank card holders, *"fashioners"* possess the most bank cards and *"strivers"* the least (see the black curve in Figure 3-26). Between credit cards and saving cards, the savings card is obviously the more commonly held bank card. The *"strivers"* also distinguish themselves from the others as the group who which holds the highest percentage of saving cards and the lowest percentage of credit cards. Similar card holding habits are found in the *"pragmatists"* and *"followers"* groups. Correspondingly, the rate of *"fashioners"*, *"traditionists"*, *"yuppies"* and *"careerists"* holding credit cards are higher than that of others.

4 Conclusions, Limitations and Suggestions for Further Research

The segmentation study described in the last chapter is well suited to provide a basis for implementing a strategy of market segmentation, i.e., targeting and positioning, in the Chinese consumer goods market. It also seems certain that such a marketing strategy will experience significant growth in the future. As mentioned in Chapter 2.1, two more steps have to be made in doing so, namely

9. decide how many and which market segments to target (*targeting*), and
10. develop a marketing mix for each targeted segment (*positioning*).

Step 9 (*targeting*) involves an evaluation (*prioritizing*) of the identified market segments followed by a selection of one or more of the best evaluated market segments as target market(s). In evaluating the market segments the manager must look at two factors: (1) the segment's overall attractiveness and (2) the company's objectives, competencies, and resources.[81]

Firstly, the segment's *overall attractiveness* is determined by its *size* and *growth*. That is, its current or future size must be sufficient enough to justify the expenditure for marketing efforts.[82] Secondly, it also must be significantly *distinctive* from other segments and the population at large. The basis of that difference depends on the type of product or the circumstances prevailing the market at the time.[83] It may be rooted in any of the segmentation variables used in the study, whether demographic or psychographic. Without a significant difference, segment boundaries become too blurred, and there is risk that the company's offerings will not be sufficiently well tailored to attract the required customers.

Thirdly, the market segment must be *accessible* to the company's normal promotion and distribution methods.[84] And finally, it should be *defendable* by the company. That is, the company should be able to develop a sufficiently strong differential advantage to defend its presence in that segment against competitive incursions.[85]

Other factors that may affect the overall attractiveness of a market segment and therefore should be taken into account are:

- Level of competition,
- Segment profitability,
- Likely technological changes,
- Sensitivity to price,

[81] Kotler, P. (2003), p.299.
[82] Myers, J.H. (1996), p.29.
[83] Brassington, F. / Pettit, S. (2005), p.128.
[84] Myers, J.H. (1996), p.29.
[85] Brassington, F. / Pettit, S. (2005), p.129.

- Barriers to entry,
- Buyer or supplier bargaining power,
- Socio-political considerations,
- Cyclicality and seasonality,
- Life-cycle position.[86]

Obviously, not all of these factors will be of equal importance, and as such, it pays to adopt a weighting system that uses a simple scoring system before carrying out the evaluation.[87]

Besides overall attractiveness, the company's *objectives*, *competencies* and *resources* are of crucial importance in the evaluation of market segments because some overall attractive segments may not mesh with the company's long term objectives, or the company may lack one or more necessary competencies to offer superior value.[88] Therefore, all market segments have to be checked regarding their compatibility with company's objectives, competencies and resources.

Evaluation ends with ranking of all the market segments according to their decreasing attractiveness to the company (*prioritizing*).

The question that arises next is *how many* of the highest ranked market segments should be selected as target markets.[89] Of course, this depends in part on the size of the company. Large companies usually can operate in more markets than smaller ones, but often it is impractical to do so, and more appropriate for them to concentrate their efforts on only one or two market segments. The decision about how many market segments are selected and targeted depends on factors other than company size, it includes the company objectives, the competition, market requirements, and company resources[90], and results in the fixing of one of the following targeting strategies: (1) *single segment strategy*, (2) *multi-segment strategy*, (3) *full market coverage* (see Figure 4-1).

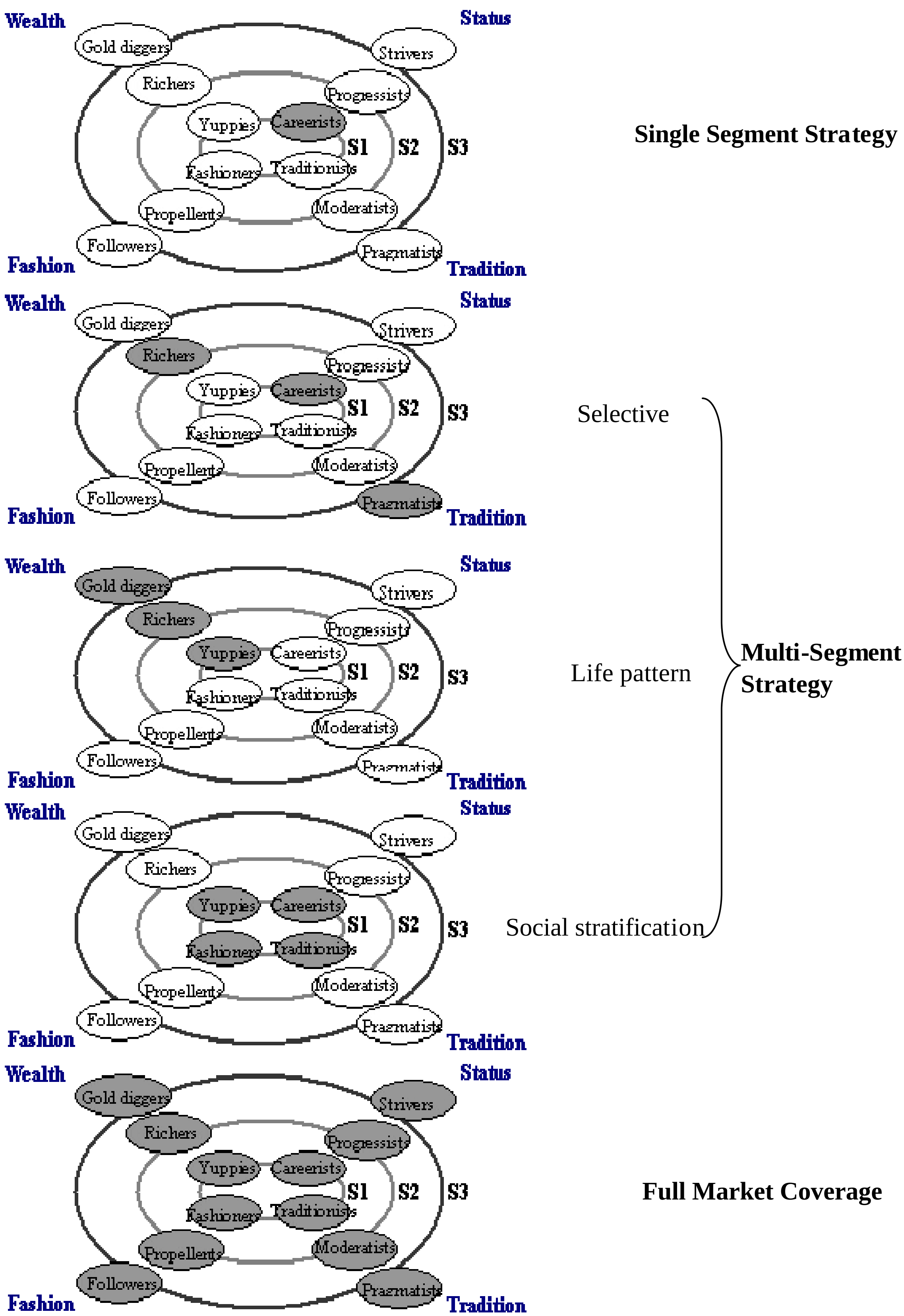
(1) Single segment strategy (concentrated or niche marketing):

The simplest targeting strategy that a company selects will use only a single segment to concentrate its marketing or market segmentation strategy. This can also be refered to as a concentrated strategy of market segmentation.

<u>*Definition*</u>: The term 'single segment' is used to describe this strategy because only one, single, market segment is chosen for targeting; hence, there is a concentration of marketing efforts. If the market segment is relatively small, well-defined and clearly

[86] Croft, M.J. (1994), p.44.
[87] Ibid.
[88] Kotler, P. (2003), p.299.
[89] Myers, J.H. (1996), p.29.
[90] Ibid., p.30.

Figure 4-1: Patterns of Alternative Targeting Strategies



(2) Multi-segment strategy (differentiated marketing):

focused, the term *'niche marketing'* is used.[91] Many companies succeed by producing a specialized product aimed at a clearly defined segment of the market or niche.

Objectives: To find a segment currently being ignored or served inadequately, and meet its needs.

Requirements: (a) Serve the market wholeheartedly despite initial difficulties, and (b) avoid competition with established firms.

Expected results: (a) Low cost, and (b) higher profits.[92]

Advantages: Because a company's effort focuses on a single segment of the total market, it can research specific consumer wants in greater detail. Long production runs are possible, advertising and distribution can be keyed to satisfying one target segment. For example, *Rolls Royce* concentrates on the luxury-car buyer segment.[93] Through concentrated marketing, the company gains a strong knowledge of the segment's needs and puts all of its efforts into this unique segment, thereby fully satisfying its needs. This might help the company achieve an advantage over competitors, especially those that target a number of segments and whose efforts are spread more diffusely. Furthermore, the company gets a facile success by specializing in its marketing mix: product, distribution, promotion and price. If it becomes a leader in a single segment by identifying a group that was previously ignored or inadequately served and manages to meet its needs, the company can earn a higher profit. A small firm trying to enter a market dominated by a few large firms may gain easier entry by concentrating on a small segment ignored by the big firms. If the segment is so small that only one firm can make a satisfactory profit, potential rivals may continue to ignore it.

Disadvantages: Targeting a single segment involves risks, because companys' fortunes depend on their chosen sole segment, and therefore, they cannot spread their marketing risk. The particular segment may turn sour and become non-profitable. For example, when a strong competitor invades the segment and seizes on the majority of the market shares; the preferences of consumers in this segment change suddenly. For these reasons, many companies prefer to target more than one segment.

In China, luxury goods, even the more expensive ones, are not lack of customers.[94] For example, one may find in a *Louis Vuitton* shop in Shanghai, a pair of shoes priced 8000 Yuan (circa 800 €), luggage priced from 5000 Yuan (circa 500 €) to 30,000 Yuan (circa 3000 €), even a small wallet with the mark of *Louis Vuitton* priced 2600 Yuan (circa 260 €).[95] In comparison to the average monthly salary of 2000 (circa 200

[91] Masterson, R. / Pickton, D. (2004), p.114.

[92] Jain, S.C. (1993), p.377.

[93] Schoell, W.F. / Ivy, T.T. (1982), p.200.

[94] Gong, H. (2004)

[95] Marked price in *Louis Vuitton* shop in Shanghai

€) to 3000 Yuan (circa 300 €), most of Shanghai residents can not afford these excessive expenditures. By estimation, there are probably 20 million potential consumers of luxury goods at present in China (circa 1.5% of total population of China).[96] They are equivalent to one quarter of the total population of Germany. Such a relatively huge group attracts luxury goods producers marching into China constantly.

In the described segmentation study, yuppies are the majority for luxury goods consumption. Most of the top luxury goods producers in the world should aim at this segment exclusively. For example, *Rolex* watches, *Ferrari* sports cars, etc.

Instead of concentrating on one segment with one marketing mix, the multi-segment strategy (*differentiated strategy of market segmentation*) involves developing two or more market offerings for two or more market segments. Multi-segment strategy here consists of three alternatives: *selective specialization*, *life pattern specialization* and *social stratification specialization*.

(a) Selective specialization:

Definition: Selective specialization strategy is when a company seeks to serve multiple segments, but to differentiate its products in a way that meets the needs of each of the segments it seeks to serve. The firm selects a number of segments, each objectively attractive and appropriate. There may be little or no synergy among the segments, but each promises to be a money maker.[97]

Objectives: (a) Diversify the risk of serving only one segment even if a certain market segment chucks away, the firm can still gain profits from other segments continuously, and (b) develop slightly differentiated products which add to customer value faster than they add to production costs.

Requirements: (a) Carefully select segments to serve, and (b) avoid confrontation with companies serving the entire market.[98]

Expected results: (a) Higher sales, and (b) higher market share.

(b) Life pattern specialization:

Definition: Life pattern specialization refers to when a company targets segments which are oriented by a similar life pattern. As analyzed in Chapter 3, there are four kinds of life patterns to orient urban Chinese consumers: wealth oriented, status oriented, tradition oriented and fashion oriented.

Objectives: To serve the selected submarkets extremely well by understanding the shared consumer preferences and behaviors found in that same life pattern.

[96] Estimated according to the proportion of respondents in the segmentation study to all Chinese residents.

[97] Kotler, P. (2003), p.299.

[98] Jain, S.C. (1993), p.377.

Requirements: (a) Gain enhanced knowledge of the chosen segments, (b) concentrate all efforts on these submarkets, (c) develop differentiated strategies to serve the chosen segments, and (d) promote heavily. For example, promotion to *"careerists"* (oriented by status in the higher social stratification) may emphasize the uppermost status connoted in the products, to *"progressists"* (oriented by status in the middle social stratification) it may combine success with moderate price, but to *"strivers"* (oriented by status in the lower social stratification) it may give prominence to a lower price with appropriate quality.

Expected Results: (a) Increased profits, and (b) increased market share in the selected segments.

(c) Social stratification specialization:

Definition: Social stratification specialization refers to a company's target segments located within the same social stratification. In the segmentation study described in Chapter 3, three social stratifications have been classified: S1 represents richer social stratification, S2 represents middle social stratification, and S3 refers to mass social stratification.

Objectives: To provide suited products/service that can meet the psychological needs of a certain social stratification. For example, to consumers in higher social stratification, companies should offer products with the meaning of status and reputation.

Requirements: (a) Good reputation, (b) superior marketing mix strategy, (c) be technologically competent, (d) have ample resources, and (e) deep understanding of chosen segments in the same social stratification.

Expected Results: (a) Increased growth, (b) increased market share, (c) increased profitability, and (d) reduced cost via experience.

A market segmentation strategy does not mean a marketer has to settle for a smaller sales volume than one who uses the mass market strategy. Segmenters aim at a smaller market(s), but they expect to penetrate it in much greater depth than they could penetrate the mass market. The multi-segment strategy gives a firm an opportunity to serve a greater number of potential customers. To volume-oriented companies, this is a huge advantage. Companies with excess production capacity may try to use it to appeal to new segments.[99] *Procter & Gamble* can satisfy nearly every segment of the detergent market with its many brands, which include *Tide*, *Gain*, *Dash*, *Cheer*, *Oxydol Duz*, and others. Through life pattern specialization and social stratification specialization strategies, the marketers gain a thorough understanding of the life patterns or the consumption psychology of consumers in certain segments. Consumers in the same segment are homogeneous and have the similar responses on marketing mix.

[99] Schoell, W.F. / Ivy, T.T. (1982), p.201.

Companies can then design an appropriate marketing mix that is targeted directly to their desired consumers needs and wants.

The big disadvantage of the multi-segment strategy is that a company may spread its resources too thin to be effective. It may focus on too many segments with too many offerings. Marketing costs tend to rise as new marketing channels and promotional programs are needed. As a result, higher prices cause consumers' dissatisfaction.

(3) Full market Coverage (differentiated marketing):

Definition: The company attempts to serve all segments of a market with all the products the consumers might need (*differentiated strategy of market segmentation*).

Objective: To compete across the board in the entire market.

Requirements: (a) Employ different combinations of price, product, promotion and distribution strategies in different segments (*differentiated marketing*), (b) top management commitment to embrace entire market, (c) higher market share, and (d) have ample resources, especially strong finances.

Expected Results: (a) Increased growth, and (b) higher market share

Step 10 (*positioning*) involves the act of designing the company's offering (marketing mix) and image to occupy a distinctive place in the mind of the target market(s).[100] This is the most difficult aspect of any segmentation project. The end result has to be the successful creation of a *customer-focused value proposition*, a cogent reason why the targeted customers should buy the product offered to them.

To sum up (see also Figure 4-2), each strategy of market segmentation is built upon 4 stages or 4 Ps[101], i.e., *Probing* (marketing research stage), Partitioning (market segmentation stage), Prioritizing (targeting stage) and Positioning (positioning stage).

Finally, attention should be drawn to the fact, that the segmentation study described in Chapter 3 involves some limitations.

Firstly, data collecting by face-to-face interviews is often confounded with biases, such as social-desirability bias.[102] *Usunier* has also observed that Chinese respondents preferred to use their group as reference rather than speaking their own mind.[103]

Secondly, the samples used for analysis were drawn from the main 30 urban areas of China, without considering consumers in rural areas of China who are the majority of Chinese consumers, but this limits the ability to generalize the research findings for

[100] Kotler, P. (2003), p.308.

[101] Kotler, P. (1989), p.15. They should not be confused with the better known 4 Ps of tactical marketing: Product, Price, Place and Promotion.

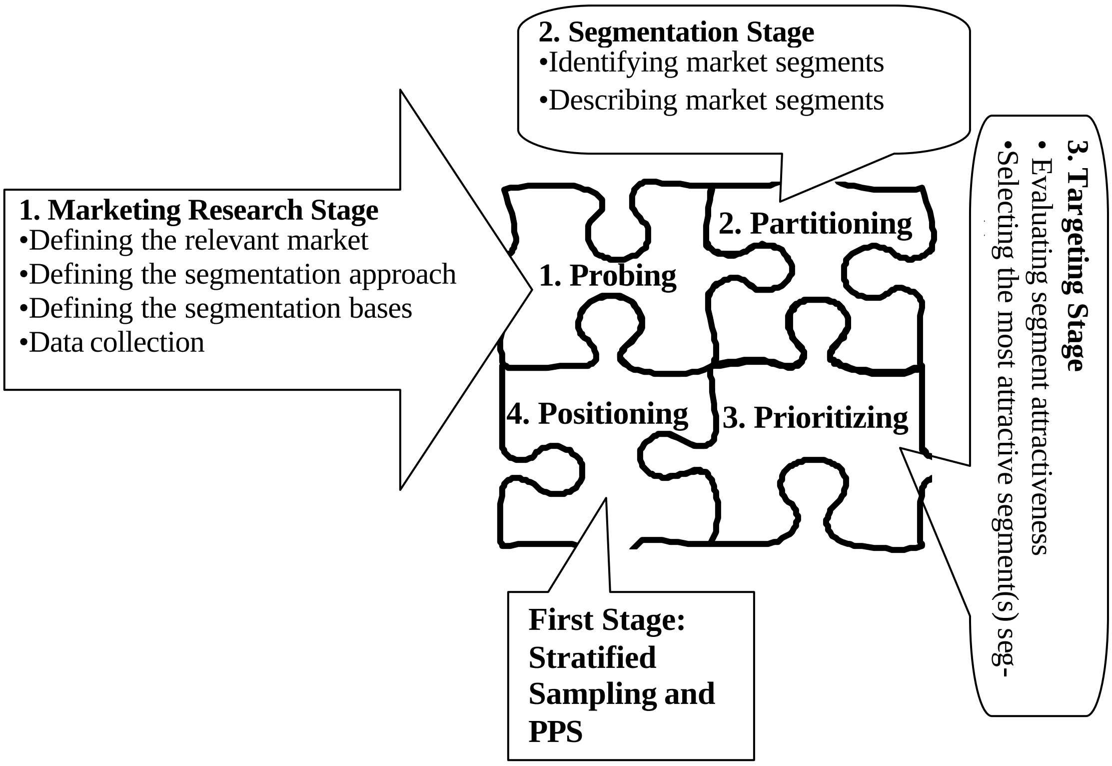
[102] Rovertson, C.J. (2003), p.264.

[103] Usunier, J.C. (1998), p.122.

China as a whole. Future research, therefore, may expand the study by attempting rural samples and further refine the segments in a Chinese context.

Thirdly, China is a vast market and different regions have different consumption characteristics as well as location advantages and disadvantages. The segmentation study didn't consider the effects of location on performance of firms. This should be one of the contents of future research. *Fourthly,* additional factors for the samples such as religion and nationality (there are 56 nationalities in China), may have played a role in each individual's response and produced some bias.

Figure 4-2: The 4 Ps of a Strategy of Market Segmentation



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Appendix

The Interview Questionnaires

Extraction and translation into English of the original questionnaires administered in Chinese

Questionnaire for the Chinese Consumer Lifestyles

Recruitment starts here

Good morning/afternoon/evening, I am an interviewer of Sino-monitor organization. Thank you very much for supporting our research on this nationwide product consumption. The purpose of this research lies in understanding consumption orientation and lifestyle of consumers who participate in this research, and offering suggestions for decision of the government and enterprises by this.

Would you please record the name, sex and age of your family members in the table below? Repeat for all members.

No.	Name	Sex	Age
1			
2			
3			
4			
5			
6 or more			

Interviewer: select the right respondent and talk to him/her.

Section A: The Chinese Lifestyles

Here are some common sayings which are in everyday use. I would like you to think about how much you agree or disagree with them. There is no right or wrong answer to these common sayings. You will find some of them that you agree with and some of them that you disagree with. Here is a scale ranging from 1 to 5. No. 1 stands for completely agree, and No. 5 stands for completely disagree. In other words, the greater the number, the less you agree with the saying.

No.	Statements	Strongly agree				Strongly disagree
1	I will use my favor brand all the time	1	2	3	4	5
2	Using famous brand can improve one's identity	1	2	3	4	5
3	I like to keep up with latest fashion	1	2	3	4	5
4	Even the price is higher, I like to buy foreign brands	1	2	3	4	5
5	I prefer to buy domestic brands	1	2	3	4	5
6	I don't pay more attention to brands	1	2	3	4	5
7	Product Quality of joint venture is not better than imported product	1	2	3	4	5
8	Product quality of fake brand is almost same with real brands	1	2	3	4	5
9	I prefer to pay premium for high quality products	1	2	3	4	5
10	Even if expensive, I will buy perfume or cosmetics	1	2	3	4	5
11	I'd like to buy products with unique style	1	2	3	4	5
12	I will read the specification carefully when purchasing	1	2	3	4	5
13	Advertisement is absolutely necessary in daily life	1	2	3	4	5
14	While buying the goods, it is more reliable by brands of the advertisement	1	2	3	4	5
15	Brand that the famous person recommended is not usually wrong	1	2	3	4	5
16	I will not go to buy the products that the advertising pattern is low	1	2	3	4	5
17	I often have desire to buy the products that are promoting in the market	1	2	3	4	5
18	I pay more attention to the street ad	1	2	3	4	5
19	I often read the ad in newspapers and magazines	1	2	3	4	5
20	I like the ad on TV	1	2	3	4	5
21	I usually change the channel when playing TV ad.	1	2	3	4	5
22	The film ad. is usually better than television ad.	1	2	3	4	5
23	I will not change the newspaper that I read	1	2	3	4	5
24	Compared with TV, I am willing to obtain information more from the newspaper	1	2	3	4	5
25	I keep the magazine read, and will browse them	1	2	3	4	5
26	The magazine helps me to keep up with the latest trend	1	2	3	4	5
27	I have no time to read magazine	1	2	3	4	5
28	Broadcast for me is just like friend	1	2	3	4	5
29	It is more importantly that one is good at spending money than earning money more	1	2	3	4	5
30	I usually compare the price in several shops before shopping	1	2	3	4	5
31	I usually choose to buy the cheapest products	1	2	3	4	5
32	I watch my budget very carefully	1	2	3	4	5

No.	Statements	Strongly agree			Strongly disagree	
33	It is but very difficult for me to want to save	1	2	3	4	5
34	I have enough money to enjoy life	1	2	3	4	5
35	I like paying in cash at the time of shopping	1	2	3	4	5
36	The risk of stock and shares to me is great	1	2	3	4	5
37	I prefer to deposit it in the bank if I have surplus money	1	2	3	4	5
38	I prefer the beneficial food for beauty and health	1	2	3	4	5
39	I like trying the new variety of food	1	2	3	4	5
40	I am very particular about the diet	1	2	3	4	5
41	I think my diet is good for health	1	2	3	4	5
42	It makes me worry to get fat	1	2	3	4	5
43	Man should also do housework	1	2	3	4	5
44	Women's main role is to make a happy family	1	2	3	4	5
45	It is unimportant to me whether there are children or not	1	2	3	4	5
46	My family is more important to me than my career	1	2	3	4	5
47	I like spending my time with my family	1	2	3	4	5
48	I am willing to go out to have a meal with the friend, but not have a meal with family at home	1	2	3	4	5
49	I like doing things alone even more	1	2	3	4	5
50	I like taking time and chatting with the friends	1	2	3	4	5
51	I like doing everything by yourself but not relying on others	1	2	3	4	5
52	In the social activity, I am an active person	1	2	3	4	5
53	I am quite enthusiastic to the thing of neighbors	1	2	3	4	5
54	While meeting the fresh and different things, I will feel excited	1	2	3	4	5
55	I like to keep up with latest fashion	1	2	3	4	5
56	I prefer fashion to practicality	1	2	3	4	5
57	If the things are damaged, I will change but repair it	1	2	3	4	5
58	I am a pioneer to buy the newest technical products	1	2	3	4	5
59	To attract heterosexual sight is my favorable feeling	1	2	3	4	5
60	I yearn towards the lifestyles in developed countries	1	2	3	4	5
61	I yearn towards romantic life	1	2	3	4	5
62	Enjoy now, don't worry the future	1	2	3	4	5
63	I pay much attention to the atmosphere, decoration and the style of the shop	1	2	3	4	5
64	I hope I become the person with unique style	1	2	3	4	5
65	I mind the views on me of others	1	2	3	4	5
66	There is no great changes for many years in my dress-ing	1	2	3	4	5
67	I always have a plan to do things	1	2	3	4	5
68	I am always resolute when doing things, will not be irresolute	1	2	3	4	5

No.	Statements	Strongly agree				Strongly disagree
69	I always work and rest in daily life on time, the diet is at regular time and quantity	1	2	3	4	5
70	I can give up leisure time to earn more money	1	2	3	4	5
71	In life, the recreation and work should be divided quite clearly	1	2	3	4	5
72	I spend much money on recreation	1	2	3	4	5
73	The Karaoke is one of my favorite pastimes	1	2	3	4	5
74	I like going out to drink together with friends	1	2	3	4	5
75	I like going on holidays in the place of the educated atmosphere	1	2	3	4	5
76	I would like to stay at home instead of going out in the evening	1	2	3	4	5
77	It is my main amusement way to watch TV	1	2	3	4	5
78	Even busier, I should find time to participate in exe r-cises	1	2	3	4	5
79	I place a lot of hope on my personal career	1	2	3	4	5
80	Women should have personal career like men	1	2	3	4	5
81	The stability of the work is more important than the high income	1	2	3	4	5
82	To achievement, I would like to work overtime	1	2	3	4	5
83	I work just in order to make a living	1	2	3	4	5
84	Money is the optimal standard to weigh up success	1	2	3	4	5
85	To the environmentally friendly products, even the price is a little higher, I will buy them	1	2	3	4	5
86	I think the pollution problem of the city that I live in is very terrible	1	2	3	4	5
87	Science and technology makes my life convenient, comfortable	1	2	3	4	5
88	I prefer credit from the bank instead of borrowing money from friends and relatives	1	2	3	4	5
89	Only really having one's own houses, I will feel steady and reliable	1	2	3	4	5
90	If lose present work, I am very sure to find a new job quickly	1	2	3	4	5
91	Taking exercise can make me good figure	1	2	3	4	5
92	The child often influences my shopping decision	1	2	3	4	5
93	While falling ill, I generally buy medicines and cure the disease by oneself, but not go to the hospital	1	2	3	4	5
94	When broadcasting the TV programme that I like, I will not change the channel	1	2	3	4	5
95	Sometimes I like to buy something I don't need	1	2	3	4	5
96	I often do things on the spur of the moment	1	2	3	4	5
97	I often go to the Western-style fast food restaurant to have a dinner	1	2	3	4	5

Section B: Personal Data

In order to help with the analysis of data, please give the following information about yourself. The information will be kept in strict confidence.

98	Region:	Beijing Shanghai Guangzhou Chengdu Other 26 cities
99	Sex:	Male Female
100	Age:	15-24 25-34 35-44 45-54 55-64
101	Education:	Junior high school and less Senior high school/secondary technical school College University and more
102	Martial status	Single Married Other
103	Monthly average income	Less than 500 Yuan 500-999 Yuan 1000-2999 Yuan 3000 Yuan and more
104	Occupation:	Governor Managerial personnel in enterprises/companies Professional Blue-collar worker Self-employed Free vocation Student Other (unemployed, laid-off, retired, housewife, etc.)
105	Household living size (m^2):	20 or less 21-30 31-40 41-50 51-60 61-80 81-100 100 or above

106	Household durable goods and insurance	TV VCD/SVCD/DVD Portable CD Camera Stereo Refrigerator Washing Machine Air conditioner Cell phone Computer Printer Vidicon Water heater Microwave oven Private car Other