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Changing Tastes: Purchase Choice in Urban China.

Ann Mcconnell Veeck

Louisiana State University and Agricultural & Mechanical College

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CHANGING TASTES: PURCHASE CHOICE IN URBAN CHINA

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

Business Administration

by
Ann McConnell Veeck
B.M.E., Denison University, 1978
M.M.R., The University of Georgia, 1986
May 1997
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Pursuing my doctoral studies has been a pleasure, as well as a valuable experience, and, for this, I owe gratitude to a number of individuals on two continents. First, I would like to thank the entire faculty of the marketing department at Louisiana State University. Every one of them has been available and helpful, and each has influenced me in important ways. I also owe a great deal of thanks to my dissertation committee, Professors Bill Black, Janeen Olsen, Barry Moser, and Dale Thom, who allowed me the flexibility and support to conduct my study overseas. In particular, Dr. Olsen provided her global perspective and Dr. Black, his always farsighted wisdom. I also owe a special thanks to Dr. Rick Netemeyer, who might as well have been on my committee given the amount of help he provided. Above all, I am grateful beyond words for the time, care, and guidance of Dr. Al Burns, my dissertation chair. His enthusiasm and wide-ranging curiosity have been constant sources of encouragement to me.

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ABSTRACT

Food purchase options have expanded greatly in urban areas in the People's Republic of China as a result of recent market reforms. Still, given the influences sociocultural factors, the restructuring of food consumption in China need not be expected to follow patterns observed in the West. This investigation of food purchase behavior was based on a ten-month period of field study in Nanjing, China. The adoption of time related food purchase behaviors was studied, including use of processed food, restaurant use, and frequency of food shopping trips. Food consumption habits were investigated in the context of how these patterns contribute to the economic efficiency of the household, as well as the definition, maintenance, and enhancement of social identities and relationships.

Methods used to investigate food consumption patterns included participant observation, structured observations of food shopping, household inventories, focus groups of primary food shoppers, food retailer interviews, and study of the popular media. Following a pretest of the measures, a representative sample of 330 primary food purchasers in the 11 zip code areas of Nanjing were surveyed via household interviews. These data were used to test a structural equation model linking sociocultural and economic factors to time reduction food purchase behaviors.

The results of the study indicate that the availability of both time and money are important predictors of use of time related products of many types, but that attitudes toward change in general are also important influences. In addition, the findings from this study reinforce a growing stream of research that finds that consumption choices are
linked to self definition and the maintenance of relationships. Food consumption patterns are rooted in a cultural ideology, influenced by material needs, but relying more on history, habit, inertia, and an aesthetic sensibility to shape consumption patterns. For urban Chinese food shoppers, maintaining traditional patterns of food consumption serves to reinforce the importance of family stability and ritual amidst the whirlwind of change.
CHAPTER ONE
CHANGE IN URBAN CHINA

Virtually every aspect of life in urban China has changed following the sweeping policy reforms of late 1979. Incomes have risen dramatically. The policy of lifetime job security has been abolished. Lives are busier. Housing is being privatized. Options for leisure activities have increased. These vast, profound, and relatively sudden changes are affecting Chinese families in numerous, significant ways, including in their patterns of purchase choice.

A number of areas of consumption change and their effects on society merit interest in urban China today. The increase in penetration of many electrical products, including televisions, refrigerators, stereo systems, computers, and telephones, is causing society-altering exposures to outside influences and changes in the dynamics of family relationships. The new forms of leisure activities, such as tourism, entertainment industries, and hobbies, are leading to an alteration in the definition of public space and creating subcultures of consumers. New rituals for celebrating holidays and ceremonies, including Spring Festival (Chinese New Year) and weddings, are altering the line between the public and private domains and mount challenges to traditional norms.

This study concentrates on changes in the purchase choice of food in urban China. Food has been chosen as it provides the clearest focus of a complex blend of material needs, roles, rituals, history, identities, tastes, and habits that shape and are shaped by consumer activities (Douglas 1984; Farb and Armelagos 1980; Mintz 1994). Food is also closely tied to the Chinese economy and the quality-of-life of households, as

1
in 1996, an average of about 50% of household spending was allocated to food (Beijing Review 1997). Finally, the food choices of urban consumers in the 1990's represent the resilience and adaptability of Chinese culture.

The broad goal of the study is to examine why and how purchase choice changes in rapidly growing economies. To understand the process of purchase change, the food choices of consumers are investigated in the context of how these choices contribute to the economic efficiency of the household, as well as the definition, maintenance, and enhancement of social identities and relationships. Further, food purchase behaviors are examined as part of a "cultural ideology," which, while influenced by material and social needs, relies more on history, habit, inertia, and an aesthetic sensibility to shape consumption patterns. Finally, alternative theories of globalization are examined to determine how food choices are influenced by global forces.

Multiple methods are used to study this problem. Integral to developing an understanding of the nature of food purchase change in China was a nine-month period of residence in the city of Nanjing, with the singular objective of becoming immersed in the complex material and social patterns that form the consumption environment of food. Methods used include participant observation, structured observations of food shopping, observations in homes, focus groups of primary food shoppers, food retailer interviews, and study of the popular media. Qualitative methods were used to develop a structural equation model of time related food purchase choice that was tested with data from a representative survey of 320 primary food purchasers in Nanjing. A synergy was created through the use of multiple methods, with findings from the diverse methods.
informing and aiding the interpretation of findings from other methods (Sirsi, Ward, and Reingen 1996). Altogether, the multiple data sources create an intricate picture of changing food purchase patterns in Nanjing.

Sherry (1995, p.18) states that the "relationship between market forces and cultural change awaits thorough description." It is hoped that this study helps provide that description, as well as makes some contribution to the methodology of consumption change analysis.

**FOOD PURCHASE BEHAVIOR IN CHINA**

The People's Republic of China has experienced a number of striking economic and sociocultural changes since the late 70's that are affecting the purchase patterns of urban Chinese households in almost all consumption categories, including food. For instance, the move toward privatization in the workforce has led to the increased spending power of many consumers, as well as a more intense work atmosphere. The food retail environment has changed greatly, with much greater choices of outlets for consumers, including food markets, small private grocery stores, and supermarkets. More restaurants, including full-service and fast-food restaurants, are now operating, offering consumers the opportunity to dine away from home. A diverse assortment of convenience foods is now available to urban consumers, including packaged, branded, frozen, processed, and prepared and semi-prepared foods. Finally, more than half of urban households currently own refrigerators, allowing consumers to store perishable food items.
The size of the potential market for new food products represented by the emerging market of 1.2 billion consumers has attracted the attention of a number of audiences, both within and beyond China, including manufacturers, retailers, economists, consumer researchers, and public policy officials. However, despite intense interest in the changing tastes and consumption patterns of the people of China, little concrete information about consumer behavior in China is available (Bussey and McGregor 1993; Miller 1994; Yan 1994). Because the discipline consumer behavior in China is as new as the nation's market reforms, the number of Chinese academicians specializing in consumer research is currently very small, albeit growing (Veeck and Zhang 1996). Knowledge of the emerging consumption patterns, with an emphasis on how these patterns will fluctuate as environmental influences change, is vital, not only to increase the potential for trade, but to contribute to a more universal understanding of consumer behavior.

Somewhat surprisingly, research relating specifically to food purchase behavior in China is particularly scant, despite the high proportion of household spending on food (The World Resources Institute 1994). The paucity of knowledge in this area is unfortunate, given that purchase patterns in East Asia appear to differ greatly from those of the West. Changes in food purchase behavior that have systematically accompanied economic development in the West, such as larger stores (Goldman 1974; Kaynak and Cavusgil 1982) and widespread emergence of self-service outlets (Kaynak 1988), are not always evident in developed Asian nations. For example, although virtually all consumers in the economically-advanced countries of Taiwan, Singapore, and Hong
Kong have convenient access to modern supermarkets, daily shopping for fruits and vegetables and fresh meats at outdoor markets remains common (Beisel 1994; Lau and Lee 1988; Tan and Teoh 1988). Therefore, a synthetic perspective which examines food retail activities as an outcome of the sociocultural environment, as well as the economic environment, would seem to be an appropriate means of understanding emerging patterns of food consumption behavior.

**RESEARCH OBJECTIVES**

The central goal of this research is to examine how and why food purchase behavior changes in a rapidly growing economy. Changes in time reduction food purchase behaviors are examined in Nanjing, China. Specifically, the research project has three major objectives:

1. To investigate how purchase behaviors contribute to the economic efficiency of the household, as well as the definition, maintenance, and enhancement of social identities and relationships.

2. To examine resistance to consumption change as influenced by a cultural ideology, a subtle, pervasive social force which works to discourage change.

3. To develop and empirically test a conceptual model relating economic variables and attitude towards change to the use of time reduction food purchase behaviors.

**OVERVIEW OF METHODOLOGY**

Nanjing, Jiangsu Province, China, population 2.8 million, was selected as the site of study, as it is fairly representative of cities in China that are experiencing great change...
in the mid 1990's. A year prior to data collection, correspondence was initiated with the School of International Business of Nanjing University to conduct this field research in Nanjing with their sponsorship. Based on a research proposal, permission to conduct the research was received from Nanjing University and the Jiangsu Education Commission. Throughout the field study, each step of research was monitored and approved by officials of Nanjing University and the Jiangsu Education Commission. Summarized in Table 1.1, the major research steps are presented below:

1. Nonparticipant observations were conducted in which twenty primary food shoppers were accompanied as they conducted a shopping trips. The shoppers were then followed home and observed as they cooked a family meal to study how the food items they bought were incorporated into their families’ lives. The findings from this method are detailed in Chapter 4.

2. Three focus groups were conducted to investigate in-depth issues raised during the nonparticipant observations, and to explore hypotheses and develop scale items for the subsequent survey. Findings are detailed in Chapter 4.

3. Interviews were conducted with twenty food retail managers to obtain their perspectives of trends in the consumer environment. Findings are detailed in Chapter 4.

4. Participant behavior was conducted in which the author shopped and cooked for her own family, gaining an intimate perspective of the environment. Again, findings are presented in Chapter 4.

5. Information related to the study was gather from the popular media, including newspapers, television, and magazines. Findings are presented in Chapter 4.
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<td>September 1995 to May 1996</td>
<td>Primary food shoppers</td>
<td>20</td>
<td>Audio taped protocols; written summaries; photographs</td>
<td>Observe shopping and food preparations activities; explore attitudes, norms, and values</td>
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<td>December 1995</td>
<td>Primary food shoppers</td>
<td>3 groups representing different age ranges; a total of 26 respondents</td>
<td>Audiotapes of proceedings; translated transcriptions</td>
<td>Explore attitudes, norms, and values; generate hypotheses and develop model; develop scale items</td>
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<td>Retailer interviews</td>
<td>September 1995 to May 1996</td>
<td>Food retail managers and owners who work in stores, markets, or restaurants</td>
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<td>Audiotapes of interviews; translated transcriptions; photographs</td>
<td>Obtain retailers' perspectives of the current retail and consumer environment</td>
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<td>Participant observation</td>
<td>September 1995 to May 1996</td>
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<td>-</td>
<td>Field notes; field journal; photographs</td>
<td>Observe and participate in the food consumption environment</td>
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<td>Media search</td>
<td>September 1995 to May 1996</td>
<td>-</td>
<td>-</td>
<td>Newspaper articles; magazine articles</td>
<td>Collect information related to food consumption</td>
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<td>Pilot study</td>
<td>January 1996</td>
<td>Convenience sample of primary food shoppers</td>
<td>110</td>
<td>Measures of attitudes, behaviors, and demographics</td>
<td>Develop a questionnaire that is easy to understand and easily administered; evaluate scales and individual scale items</td>
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<td>Door-to-door survey</td>
<td>March 16-18, 1996</td>
<td>Cluster sample of Nanjing primary food shoppers</td>
<td>320</td>
<td>Measures of attitudes, behaviors, and demographics</td>
<td>Obtain absolute measures of food shopping behavior; test a structural equation model</td>
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6. A pretest was conducted on a convenience sample of 110 primary food shoppers to developed an easily administered, psychometrically sound questionnaire. Results are presented in Chapter 6.

7. A representative household survey was administered to 330 primary food shoppers in Nanjing to obtain absolute measures of food shopping behavior and test relationships among attitudes and behaviors. Results of the survey are presented in Chapter 7.

EXPECTED CONTRIBUTIONS

The main goal of this study is to make a contribution to the field of consumer behavior by providing a more informed understanding of how purchase choice changes in periods of rapid economic growth. This is examined through an investigation of use of time and labor related food purchase behaviors in Nanjing, China.

Along with the goal of advancing the understanding of consumption patterns in a global environment, the investigation offers practical managerial implications. As China's economy has grown, so has the U.S. trade deficit with China. In 1978, just prior to the reforms, the U.S. Department of Commerce reported that the U.S. actually had a trade surplus with China. In 1996, the U.S. trade deficit with China reached $39 billion, second only to Japan, and the deficit with China is expected to surpass that of Japan in 1997. The processed food industry is one of the most favorable areas of expansion into the People's Republic of China and promises to be a huge growth area. Many multi-national food companies, such as Nestle's, Procter and Gamble, Coca-Cola, Kellogg, and Kraft General Foods, have already been begun making large investments in China, in
anticipation of long term profits (Kimelman 1994; Martin 1995; Miu and Leung 1994; Rapoport 1994).

Clearly, the success of retailers and manufacturers wishing to reap the benefits of China's consumer environment is closely linked to a heightened understanding of the environmental influences of the food market of China. A successful line of food products, supported by the appropriate marketing mix can only be achieved with a sound understanding of the sociocultural foundations of food habits in China. An important objective of this study, then, is to provide specific suggestion for marketing products and services to China and other growing economies. The managerial implications of this study are presented in Chapter 8.

ORGANIZATION OF THE TEXT

The issues examined in this study are presented in two chapters that present the context of the investigation, four chapters that present the original findings, and the conclusion.

Chapter 2 presents the theoretical content, including economic efficiency theory, social theories, cultural ideology, and globalization theories, that underpin the study. Chapter 3 offers some detail on the retail and consumer environment of urban China in the 1990's to set the study in its environmental contexts. Chapter 4 presents the results of the qualitative data collection methods, including nonparticipant observations, focus groups, and retailer interviews. Chapter 5 introduces the structural equation model and related hypotheses which were informed by the qualitative research and used to predict use of time related food purchase practices. Chapter 6 presents the methods used to
develop the measurement instrument, including the pretest and the test of the measurement model. Chapter 7 presents the results of the statistical analysis of the data, including overall fit of the structural equation model and tests of the hypotheses. Finally, Chapter 8 merges the results of the quantitative and qualitative analyses to discuss the implications of the results. The discussion concludes with managerial implications of the findings and future research avenues.
CHAPTER TWO

THEORETICAL CONTEXT AND LITERATURE REVIEW

Recent research suggests that as countries industrialize, consumers will not automatically acquire the consumption habits associated with food consumption in Western nations, but may maintain indigenous patterns of consumption (Grafton-Small 1987). A study of fruit and vegetable consumption by Judson and Jussaume (1991) found that while the social structure of Japanese and U.S. households had similar effects on consumption levels, culturally distinct consumption behaviors existed. The prominent position that food assumes in rituals and traditions, as well as in everyday life, may very well make the consumption patterns associated with food relatively resistant to change, or alter the process of change (Douglas 1984; Foster 1973; Wu 1979). In other words, food consumption reflects the forces of cultural tradition, economic circumstances, and social pressures (Douglas 1984; Farb and Armelagos 1980).

Coupling sociocultural and economic theories can offer improved explanatory and predictive power for consumption choice (Berk 1980). As Dunsberry (1960) writes:

The difference between economics and sociology is very simple. Economics is all about how people make choices. Sociology is about why they don't have choices to make.

Recent household studies have profited from the pairing of economic and social theory. For example, an area of research that has made use of this hybridization pertains to the household division of labor. Recent studies have predicted division of housework through a synthesis of measures of economic status, such as income and time availability, used in conjunction with measures of norms, such as gender ideology (Coltrane and Ishi-

Following this tradition of synthesis, this study will fuse economic and social theory, to develop a synthetic approach from which to analyze changing purchase choice associated with food in China. For clarity, the more influential literature associated with this theory building process will be introduced in the following four sections: economic efficiency, social communication theories, cultural ideology, and globalization theories. The final section will discuss the links among these theories.

**ECONOMIC EFFICIENCY THEORY**

Theories of economic efficiency are based on the utilitarian position that families will manage their scarce resources to optimize the overall well-being of the household (Becker 1965, 1996; Mincer 1960). The two critical resources that households manage are time and money. Perhaps the most comprehensive household theory of economic efficiency is represented by proponents of the "new home economics" (Becker 1965, 1996). Becker views the household as "a small factory" that allocates resources to achieve the maximum utility or satisfaction for the entire family. The direct costs of the household include expenditures of time and money, and the indirect costs are the
opportunity costs that represent alternative ways the time and money might have been used.

Becker's ideas are recognized for their pioneering role in establishing the importance of the household as a unit of economic production, as well as a consumption unit. As Becker (1965, p. 516) explains the essence of his theory:

At the heart of the theory is an assumption that households are producers as well as consumers; they produce commodities by combining inputs of goods and time according to the cost-minimization rules of the traditional theory of the firm.

In a later article, Michael and Becker (1976, p. 134) write:

...this approach views as the primary objects of consumer choice various entities, called commodities, from which utility is directly obtained. These commodities are produced by the consumer unit itself through the productive activity of combining purchased market goods and services with some of the household's own time. In this framework, all market goods are inputs used in production processes of the nonmarket sector. The consumer's demand for these market goods is a derived analogous to the derived demand by a firm for any factor of production.

In other words, Becker and subsequent researchers recognized that households have dual roles in the economic process, operating as production as well as consumption units. Individuals make economic decisions on behalf of their households concerning expenditures of time and money. For example, a consumer in contemporary China contemplating serving chicken for dinner would face a series of decisions representing trade-offs involved in the purchase and preparation of the dinner. The consumer might choose to buy a live chicken to pluck, butcher and cook. On the other hand, the consumer might buy the chicken plucked, cut, and ready-to-cook, or alternately buy a roasted chicken, depending on the tradeoffs the consumer makes between income and
time. If the consumer is operating in an economically rational fashion, the consumption choice will depend on the amount of time and capital the consumers' household members have available to spend.

Household production models have been used with mixed success to explain a variety of behaviors, including activities not commonly considered to be "economic." Becker (1991, p. ix) himself claims to be less interested in "material" behavior:

My intent is more ambitious: to analyze marriage, births, divorce, division of labor in households, prestige, and other nonmaterial behavior with the tools and framework developed for material behavior.

Indeed, a variety of "nonmaterial" behavior has been studied through economic efficiency theory, such as fertility decisions (Willis 1974), extramarital affairs (Fair 1978), and marital decisions (Becker 1974).

A number of consumer behavior studies have emerged under the general premises represented by economic efficiency theory to investigate household consumption behavior. One significant group of studies is the investigations of the effects on household consumption patterns caused by women entering the workforce. These studies, implicitly or explicitly, are founded on the supposition that attendant alterations in household resource allocations of time and money should affect consumption patterns. Somewhat counter-intuitively, some of these studies have found no relationship between the employment of women and household consumption (Rubin, Riney and Molina 1990; Strober and Weinberg 1977, 1980; Weinberg and Winer 1983). However, others have found important consumption differences between one and two income households (Bellante and Foster 1984; Bryant 1988; Nickols and Fox 1983;
Schaninger and Allen 1981). The approaches used in these studies vary widely, and so the contrary results are not necessarily problematic. Still, a review of these studies indicates the general absence of any efforts to appraise traditions, norms, or motives in these efforts to explain household consumption behavior. In other words, the context of consumption is omitted.

This disregard for the importance of taste and tradition when evaluating changes in household behavior has been a prevalent and persistent critique of the "new home economics" and similar spin-offs of economic efficiency theories (Berk 1980; Berk 1985; Hernandez 1985; Pollak 1985; Robinson 1977; see Ferber and Birnbaum 1977; Robinson 1977; and Reid 1977 for discussions of other limitations). As Keynes (1936, p. 108) notes, consumers are driven not only by utility maximization, but by "enjoyment, shortsightedness, generosity, miscalculation, ostentation, and extravagance," in short, all the vagaries of human behavior. In fact, Becker does attempt to include values and norms in his theory under the label of "psychic income" (Becker 1991) or "social capital" (Becker 1996). Becker's examples of "psychic income" or "social capital" include choosing increased leisure time; opting for a more pleasant, lesser-paying job; smoking cigarettes in the face of clear health risks, and employing unproductive nephews. Unfortunately, researchers have not had success in actually incorporating "psychic income" in household economic models (Berk 1980).

In summary, while theories of economic efficiency are useful in outlining the importance of the availability of time and money in explaining household resource allocation, the explanatory power they offer is most certainly incomplete (Ben-Porath
A synthesis of sociocultural context and economic influences of consumption choice should improve the explanatory power of quantitative models and provide a more accurate and comprehensive theoretical model.

SOCIAL COMMUNICATION THEORY

While admittedly largely dictated by economic resources, consumption choice occurs within a complex environment of interrelated influences that range from subtle to immutable. When the environmental settings of individuals and their consumption decisions are omitted, the resulting models appear deficient in their ability to predict consumer behavior. Consumers appears irrational (Grafton-Small 1987; Sahlins 1976). But, as Douglas and Isherwood (1979, p.5) write:

Once we have set the individual back into his social obligations and so consumption back into its social processes, goods emerge with a very positive contribution to rational life, especially at the point of metaphorical reasoning.

The social meaning of consumption choice can be analyzed in a number of ways. Veblen ([1899],1992) analyzed products as signs signifying social status. According to Veblen, with the dawn of mass production, status, once denoted through the occupation of individuals, has come to be signaled through “conspicuous consumption.” Simmel ([1900],1978) extended Veblen’s work with an analysis of fashions, viewing consumption as a “trickle-down” process, with a perpetual quest of the common people to imitate the elite. Bourdieu (1984) has built on the work of Veblen and Simmel to analyze the role of consumption as defining and maintaining the social class of an individual. Bordieu sees “taste” as a social marker, part of an individual’s “cultural
capital," that makes mobility among the classes difficult. Lamont (1992) and Hall (1992), replicating Bourdieu's study in the U.S., found that establishing distinctions via consumption is not as important in the U.S. as in France. Others maintain that advanced information technology is creating societies in which a plurality of experiences flourish, abolishing ordered relationships between social structure and consumption, (Featherstone 1991; Firt and Venkatesh 1995), or, alternately, creating more "nuanced" relationships (Holt 1997).

Mary Douglas (Douglas 1984; Douglas and Isherwood 1979) views goods as serving a much broader purpose than that of status display. Goods make "visible and stable the categories of culture" (Douglas and Isherwood 1979, p. 161). We communicate through things to articulate self definitions, social relationships, domination, and mobilization. As such, consumption activities help us to organize our lives and evaluate others.

Another, closely related, approach with which to analyze consumption choice builds on the semiotic approach, advocated by Levi-Strauss, which views objects as symbols that create order in the world as a system of categories. Baudrilliard (1988) emphasizes that individuals do not exchange products, but rather exchange "commodified signs." The value of the products is not determined by their use, but by their image. McCracken (1989) notes that items do not communicate in isolation, but as part of a "constellation" of objects, or "Diderot unities."

This collection of theories, almost all developed to describe modern (or "postmodern") capitalist societies, enriches our understanding of the social relations.
created and sustained through consumption activities. Yet, as a whole these theories are unsatisfying in explaining culturally stable behavior that is detached from social status based on differentiation (Miller 1995). The theories are useful for the examination of how consumption activities define status hierarchies, but not to analyze how they perpetuate the status quo. They explain distinction but not uniformity. Homogeneous behaviors that connect whole societies of people together do not typically receive the attention of social scientists.

**CULTURAL IDEOLOGY**

Understanding change requires understanding the resistance to change as well as the adoption of new behaviors (Miller 1995). How groups of individuals react to new consumption choices can vary widely. Some societies experience pressure to adopt new products, even when the items threaten economic stability and health. An example is regions that substitute white bread as the staple food for less expensive and more nutritious grains due to social pressures to adopt modern ways (Weismantel 1989). Other societies refuse to adopt consumption choices in widespread use by communities in close proximity. For example, the Amish people in the U.S., albeit an extreme example, have resisted technology commonly used by most Americans for centuries (Umble 1992). Although religious, economic, and political incentives are among the more powerful forces of resistance of consumption choices, other persistent influences can be equally compelling. Analyzing how a society reacts to new consumption options requires analyzing the society's cultural ideology.
Cultural ideology is defined as a collection of rituals, traditions, beliefs, and values that directs individual's choices and creates resistance to change. The concept is similar, although not identical, to what others have called a "social paradigm" (Berry, Conkling, and Ray 1997), "local knowledges" (Geertz 1973), and "cultural frameworks of taste" (Holt 1997; see also Bourdieu 1984). Cultural ideology is socially constructed, but affects individual behavior. As represented in Figure 2.1, cultural ideology emerges from the sociocultural environment to affect individual attitudes and purchase decisions (see Figure 2.1). The term "ideology" is intended to have a neutral, rather than a politically charged meaning here, similar to Gould's (1964, p.315) definition:

Ideology is a pattern of beliefs and concepts (both factual and normative) which purport to explain complex social phenomena with a view to directing and simplifying sociopolitical choices facing individuals and groups.

While culture has been defined many ways (Arnould and Wallendorf 1994), Swidler's (1986) definition of culture, "a toolkit of symbols repertoires, practices, knowledges, recipes, and ways of doing things," is appropriate for this concept. The terms "culture" and "ideology" share some meanings, but they are not synonymous. Taken together, they refer to a rather tenacious, pervasive force in society, that, while not immutable, is unfriendly to change. While in the past, culture has been viewed as a phenomenon that can be explained as the result of other influences (Featherstone 1991), culture is treated here as a phenomenon that is more than the sum of a number of individual factors or aspects of human life.
An example of a cultural ideology is the use by different societies of various combinations of hands and tools for eating. Few consumption theories adequately address why most Chinese use chopsticks as eating tools, while most American use forks, spoons, and knives. Finding an economically rational reason for this variation would be difficult, since it seems unlikely that any point in time the economic merits of one form of eating has been rationally compared to another, either consciously or consciously. Social theories are equally deficient in explaining the differences: one eating tool versus another does not serve to perpetuate self identity (after all, everyone in the same society uses the same tools), define social relationships, or maintain status.
distinctions. Furthermore, this phenomenon seems unlikely to change for generations, despite the fact that both options are inexpensive and readily available to the residents of both nations. While Americans sometimes use chopsticks when eating a Chinese meal, and Chinese sometimes use forks and knives to eat a Western meal, this is a temporary flirtation, rather than a permanent change. In short, these practices are best interpreted as artifacts of the cultural ideologies of the societies within which they occur.

GLOBALIZATION

In the 1990's globalization is a major instrument of change for the urban areas of nations that are experiencing rapid economic growth. The process of consumption change is, to a large extent, shaped by the response of these nations to global influences (Ger and Belk 1996). A number of theories have developed that predict the effects of globalization on nations with rapidly growing economies. The major themes of these positions describe to what extent a local culture absorbs, resists, or alters influences from the outside.

One major stream of thought views globalization rather negatively, emphasizing the adverse, destructive effects of outside influences on local cultures (Joy and Wallendorf 1995; Joy and Ross 1989; Sherry 1987). This viewpoint usually maintains that the greatest cultural damage is inflicted by transnational corporations—more specifically American transnational corporations—with McDonald’s, Coca-Cola, and Disneyland being the leading forces of cultural terrorism. The argument is that the influence of transnational corporations is difficult to resist and has the potential of causing a number of detrimental effects, including materialism, selfishness, and
alienation. Sklair (1995, p.269), emphasizing the widespread influences of transnational corporations, states that "...despite serious challenges and wide-spread cynicism, no other secular world view has come anywhere near the ideological force or the practical achievements of the global capitalist system." The extreme view of this interpretation is a fear that globalization will lead to world-wide cultural homogenization (Sherry 1987).

In short, this response to globalization involves the rapid adoption of new products, services, and ideas, with an accompanying erosion of the traditional roles and rituals associated with consumption.

Another popular viewpoint emphasizes the contradiction and indecisiveness that greets global influences. According to this theory, when confronted with global forces, two movements will occur simultaneously—one embracing the new choices, and another strenuously resisting the influences (Appadurai 1990; Featherstone 1991; Firat 1995). A backlash of intense nationalism is found to sometimes follow the introduction of globalizing forces to a nation (Arnason 1990; Smith 1990). An example is the ethnic conflicts in Eastern Europe and the Soviet Union following their opening to the outside world (Ger and Belk 1996). With this response, one might see one group enthusiastically adopting new consumption patterns, and another group calling for a boycott of international products.

Another viewpoint, and the one called "perhaps the most realistic" by Ger and Belk (1996) is the phenomenon called "creolization" by Hannerz (1992). Creolization involves a blending of cultures, with the result of bi-directional influences (Hannerz 1992), as opposed to simple diffusion (Therborn 1995). Creolization involves both local
cultures incorporating global elements, and global forces incorporating local cultures. Examples are a Chinese fast food restaurant that serves local foods but features the sterile, bright environment of McDonald’s, and a McDonald’s in China that bases promotions on local festivals.

One final response to globalization is absolute resistance. In this case, indigenous consumption patterns are maintained, and influences from the outside are rebuked. In the 1990's, North Korea perhaps comes the closest of any nation to following this path. Few other regions are

These competing theories of globalization highlight different dynamics that can accompany the opening of a nation’s economy to the outside world. Since the response of a region to globalization affects the speed and pattern of consumption change, these responses are helpful for analyzing changes. Importantly, the reaction of the public to globalization can also change quickly in periods of economic and political instability (Sklair 1995). As such, monitoring the shape of globalization is important in accurately explaining and predicting the adoption of global products, services, and ideas.

THEORETICAL OVERVIEW

To investigate how food purchase choice is changing in urban China, this study will draw on the theories of economic efficiency, social communication, cultural ideology, and globalization. Each of these theories raises unique and important issues from which to analyze the dynamics of consumption change.

The new food options investigated in this study have only recently become available to urban Chinese with the opening of the economy to the outside world in the
late 1970's. Globalization theory raises pertinent issues from which to analyze the macro response of the society to the world of ideas. Monitoring the societal reaction to outside influences is important for examining the adoption or resistance of new purchase choices.

Economic efficiency theory is useful for examining to what extent consumption change can be explained by household maximization of scarce resources, i.e. time and money. In other words, consumers choose to adopt new consumption choices, according to whether or not they have the capital necessary to make the changes, as well as the economic incentive. Social communication theory approaches consumption choice from the perspective of how people communicate meanings and judge others via acts of consumption. While not directly competing with economic efficiency theory, social communication theory helps explain why consumers make consumption choices that are not rational when analyzed from a strictly economic sense. Cultural ideology, on the other hand, provides the perspective that consumers do not have as much autonomous choice as implied by economic efficiency and social communication theories. Rather, they are acting or reacting according to a pervasive societal influence of history, traditions, and values that prescribes behaviors.

Altogether, globalization theory examines the adoption of new consumption choices at the macro level by examining the societal response to worldly influences. Economic efficiency theory analyzes what consumption changes contribute to the economic well-being of households. Social communication theory examines how these changes provide information that helps form identities and define relationships. And cultural ideology explains why individuals remain resistant to change, even when faced
with incentives to change. Together, the theories allow a number of important perspectives from which to interpret changing purchase choice.
CHAPTER THREE

FOOD PURCHASE BEHAVIOR AND THE ENVIRONMENT

Consumption choice is an outcome of consumer and retail influences, occurring within a dynamic political economy (Figure 3.1). Traditional approaches to development, such as the institutional approach (e.g. Arndt 1981; Stern and Reve 1980), or the modernization approach (e.g. Goldman 1974; Rostow 1960), tend to emphasize the effect of the development of distribution channels on consumption patterns, usually assuming a Western model. The role of the demand side as a proactive force shaping developments in production and retailing is frequently neglected in consumption studies (Dholakia and Sherry 1987; Miller 1987; Wood and Vitell 1986).

As seen in Figure 3.1, the interaction between the supply and demand sides is an adaptive process. Adaption, as defined by Hallen, Johanson, and Syed-Mohamed (1991, p.29-30), draws from social exchange theory and refers to, "the ways in which fit is brought about between living systems." The consumer environment and the retail environment are vibrant, living systems that exert substantial, enduring influence on one another, and, consequently, purchase behavior.

While the focus of this study of food purchase choice concentrates on the demand side of the model (i.e. the consumers), the investigation also, by necessity, examines the retail environment, as agents of change. The purpose of this chapter is to describe recent changes in urban areas in China to place this research in appropriate environmental context. The first section of the chapter will describe the political and economic influences operating in urban China that are affecting purchase choice. Next, a
discussion of food in China will provide a background in which to interpret changes that are occurring today. Finally, recent changes in the retail and consumer environment will be described.

THE POLITICAL AND ECONOMIC ENVIRONMENT

Increased commercial activity and economic growth has expanding the choices available in the 1980's and 90's. These expansions clearly show how quickly and sensationally changes in the political and economic environment of a nation can transform buying behavior. Since late 1978, when the economic reforms championed by Deng Xiaoping were approved by the 11th Central Committee of the Communist Party, China's GNP has grown by almost 9% a year (Beijing Review 1993). Growth reached
13% in 1993 (Chen 1994a), 12% in 1994 (Sender 1995), 10.2% in 1995, and 9.7% in 1996 (Brauchli 1997). With about one-fifth of the world's population, the current rate of growth coupled with the sheer size of the nation have led to predictions that China could surpass the U.S. and assume the position of the world's biggest economy by 2010 (The Economist 1992).

This milestone might be delayed by the many major problems that are evolving concurrently with growth, particularly widespread corruption (Yin 1994; Kristof and Wudunn 1993), environmental problems (Brauchli 1994a), friction among Beijing and provincial governments (Beijing Review 1994b), a troubled banking system (Hornick 1994; Woo 1994), rising unemployment (Beijing Review 1994b), an increasing rich-poor/rural-urban gap (Brugger and Reglar 1994; Croll 1994), double-digit inflation (Kaye 1994; Beijing Review 1994a), uneven infrastructure (Purves 1993; Brauchli 1994b), and the uncertainty of leadership in the post-Deng era (Shambaugh 1994; Tyler 1994). Most importantly, despite the new market-oriented economy, China retains an authoritarian government, starkly demonstrated by the one-child-per-urban-family policy, the punishment of dissidents, and the June 1989 Tiananmen Square incident. As such, it is subject to sudden policy reversals. The government of China today still has strong roots in the legacy of Mao Zedong and in its imperialistic heritage (Lieberthal 1995). As Ogden (1995, p.124) writes, "Ironically, China today is both the world's largest communist country and the world's fastest growing capitalist economy." Myriad problems and inconsistencies notwithstanding, China is unquestionably one of the world's fastest growing markets for consumer products.
During the course of the Mao era (1949-76), all Chinese citizens were assigned to a danwei, or work unit, for life. Full employment for all citizens, male and female, until retirement was provided (and mandated). Of course, underemployment was chronic. The danwei not only provided its workers with income, but also housing, medical care, and day care and schooling for their children. After almost twenty years of economic reforms, the cradle-to-grave security system has been showing some signs of wear. Labor and wage reforms, initiated in the mid-80's, have introduced wage incentive systems in the form of production bonuses in many stores and factories. Lifetime benefits for many industries have been abolished. Layoffs are no longer uncommon. In 1993, the reforms were stepped up, with the announcement of the following official policy:

The state effects macro-regulation and control, urban and rural areas are developed in coordination, enterprises have the power of decision over employment, individuals independently select jobs, the market regulates the supply and demand and society provides services (Qin 1993, p.92).

In other words, both state and private enterprises have the authority to hire and fire at will, and citizens are free to seek their own positions. Housing and tax reforms have already begun, and eventually most state employees will be expected to pay reasonable housing rents. Those who are self-employed already do.

With the social and material incentives to work for the state in decline, the trend in the employment patterns has been the shift of a growing proportion of the workforce from state enterprises to private enterprises (The Economist 1994). Although the private economy currently represents only a small percentage of the overall national economy,
the influence of privatization is noticeable and increasing (Han 1995). In 1995, the number of private enterprises in China reached over 370,000 (Wu 1995).

The effects of the liberalization of trade policy on Chinese cities has also been immediate and dramatic. Advertising appeared almost immediately following the 1978 policy change. Radio commercials were first heard in January 1979, and the first television commercials were shown in March 1979 (Anderson 1984). The Chinese suddenly had exposure to transnational corporations, selling food, cosmetics, soaps, toothpastes, consumer electronics, fashion garments, and cigarettes. Tourists poured into China in great numbers for the first time, bringing their own influences. The international entertainment industry became a presence in China, with movies (e.g. "The Bridges of Madison Country" and "Break Dancing," ) and television program (e.g. "Bay Watch" and "Dynasty"). The influences of these exposures and many others to the world outside China on consumption preferences have been substantial.

Altogether, the changes in the political/economic environment of China, particularly the growth in the economy, the privatization of industry, and liberalization of trade policy have been far-reaching. The effects of these changes on the retail and consumer environment will be described in later sections of the chapter.

THE FOOD OF CHINA

Any study related to food in China would be negligent not to acknowledge the central position that food has traditionally occupied in the Chinese culture. The celebrated position of food in society is shown in the Chinese language, where the word for population, renkou, is literally translated as "peoples' mouths," and a traditional
greeting that substitutes for "how are you?" is "chi le, mei you?", or "have you eaten yet?" Anderson and Anderson (1977, p.363) write, "Surely no culture on earth, not even the French, is so concerned with gastronomy as the Chinese." Simoons (1991, p.4) states, "Food plays such an important role in Chinese life as to lead many to characterize the Chinese as having a food-centered culture." And Lo (1981, p. 347) writes, "in no other country in the world is food such an integral part of the complete way of life," Many other China scholars also note the reverence of the Chinese to the practices surrounding food consumption, which can be traced back at least 3,000 years (Anderson 1988; Chang 1977; Smith 1991; Terrill 1992; Thubron 1987). Farb and Armelagos (1980, p. 192) write about China's historical veneration of food:

The ancient Chinese would appear to have been more deeply involved with all aspects of eating than any other people in history. It was not only that the Chinese cooked an enormous number of dishes, utilized a great variety, of foodstuffs, devoted much time to their preparation and consumption, and spent enormous preparation and consumption, and spent enormous amounts of money in the process. In addition, numerous customs, beliefs, and rituals were tied up with eating.

Food has also been featured prominently for well over one thousand years in the arts of China, including opera, novels, visual arts, and, in recent years, films.

The symbolic eminence of food in China is exemplified by the importance of the banquet in business exchanges and rites of passage, and by the routine sacrifice of food to the gods that many Chinese make on major holidays. Zha (1995, p.126) writes of the importance of banquets in China:

Dinner parties and banquets are thus a central form of Chinese social communication. It's hard to think of anything else comparable to communal
Many of the most elaborate business banquets are paid for with state money, to the point that restaurant business is reported to suffer greatly during anticorruption campaigns (Zha 1995).

Some researchers claim that the nation's culture of food can only be understood in the context of the many periods of famine that large areas of China have experienced throughout history (Anderson and Anderson 1977; Chong 1993; Lo 1981; Spence 1988; Anderson 1988). Indeed, recorded Chinese history documents 1,828 famines between 108 B.C. and 1911 (Croll 1983). Croll (1983, p.40) writes, "A living culture of famine fare was passed from generation to generation and kept alive the knowledge of edible plants that could be adapted for consumption in times of hardship." The frequent shortages of food throughout Chinese history are said to have influenced the efficiency that is inherent in the many methods of food preparation used by the Chinese, as well as the innovative use of animal and plant parts, from pigs' bladders to lotus roots, as nourishing sustenance. Experts also note that Chinese have what has been called an "obsession" with freshness (Chong 1993; Lo 1981) that can even be traced back to the writings of Confucius 2300 years ago (Passmore and Reid 1982).

An important aspect of food in Chinese society is that to many Chinese the concepts of food and medicine are virtually inseparable (Chang 1977; Chong 1993). In Chinese cultures, the first response to illness is often the alteration of the patient's diet. Individual food items are believed to contain enhancing or harmful characteristics,
although the qualities ascribed to food varies greatly by region. For example, Simoons (1991) reports that at least some Chinese believe that walnuts stimulate the brain, shrimp exacerbates venereal diseases, and that pregnant women should avoid lamb during pregnancy. Some Chinese will pay very high prices to eat unusual animals and animal parts for medicinal reasons, such as deer antlers, pangolins, rhinoceros horns, and birds' nests, a practice which has unfortunately contributed to the endangerment of some animal species (Anderson 1988).

While the customs and beliefs that comprise the culture of food in China vary greatly by region, Chinese people share a common, ardent interest in food (Chang 1977). A complete discussion of the habits, rituals, customs, and beliefs that constitute the cultural dimensions of food in China is well beyond the scope of this study. In fact, a number of books have described various facets of the food culture of China, addressing, among many other topics, the rituals of historical dynasties, the portrayal of food in the arts, and the etiquette of food (Anderson 1988, Chang 1977, and Simoons 1991 are among the best known books related to the food culture of China). The intent of the following brief discussions on some aspects of food in Chinese culture is not to present an exhaustive description, but rather to provide some basic information which will place the study which follows in appropriate context.

**FOOD RETAIL ENVIRONMENT**

Food retailing systems are interrelated with the consumer environment and dependent on the macro-environment from within which these systems function (Figure 3.2). Three majors trends are occurring in urban China within the retail environment: 1)
expanded options for consumers with respect to the types of food retail outlets; 2) a greater variety of food choices; and 3) a large increase in the number and types of restaurants. Each of these major trends warrant some further discussion.

Figure 3.2
The Political/Economic Environment and the Food Retail Environment in China in the 1990's

Expanded Options in Food Retail Outlets

Economic development is frequently characterized by greater use of large, multi-line food retail outlets, such as supermarkets (Goldman 1981, 1982, 1992; Kacker 1988; Kaynak and Cavusgil 1982). Because of China's political and cultural history, however, food consumption patterns in China may be evolving along different lines. Prior to the December 1978 reforms, most urban residents of China could only shop in state run markets, renown for their lack of choice and the incivility of their service force. With the expansion of reform through the 1980's, "free markets" emerged throughout urban...
China. The incongruous name is derived from the fact that such vendors' markets represented an alternative to the State retail marketing system. In large cities, every main residential district now has one or more designated shopping area with power hook-ups, running water, and booths where licensed individuals can sell consumer products including all types of fresh and prepared food. Farmers bring their goods, from cabbages, fresh pork, tofu, and noodles to more exotic specialty rice, roasted meats and beverages to vend at these markets, or, much more commonly, to sell wholesale to established vendors in the markets.

The reform era has also seen an explosion of small private grocery stores, offering mainly dry goods and packaged goods, such as noodles, canned meats, soda, tobacco, and alcoholic beverages. Such stores can be found in virtually every block of any large Chinese city. Recently, supermarkets have also begun to appear in great numbers in China's cities and towns, also featuring packaged goods. More supermarkets in urban areas can be expected in coming years (Jones 1993). For example, Japan's Yaohan Food Department Store Company recently negotiated a major agreement to build Asia's largest shopping center in the Pudong district of Shanghai (Wada 1994). Many supermarkets are parts of large state chains, replacing the pre-reform grain and oil stores, where consumer once stood in line to receive their rations of rice, bread, and cooking oil. As the retail infrastructure changes in China, so has the service that is provided. In the past, few food retail outlets featured self-service. Instead the consumers had to point to the desired products and wait for a clerk to retrieve the items. Today, the newly built supermarkets and bakeries are self-service, and customers are free
to roam the stores and examine the products. A vestige of the past, however, is that as of the date of this writing, very few retailers offer credit, and consumers generally pay for their purchases with cash. Still, ATM machines have begun to appear in major cities, and these cash machines, along with the pubescent credit card industry, are indicators of changes to come.

**Greater Variety in Food Choices**

The changes in recent years in the variety and quality of food product choices can hardly be understated. Zha (1995, p.122) writes:

This is probably the most savored aspect of the current Chinese economic prosperity: suddenly there is so much to eat! You see edible things everywhere: the store shelves stuffed and stacked high with groceries of all sorts, the restaurant menus getting more and more lavish and dazzling, the street food fairs emerging in every city and town, the dinner party tables laden with dish upon dish, the long lanes of farmer’s markets full of the freshest produce at affordable prices—fish jumping in buckets of water, turtles crawling in bamboo cages, chickens noisily talking to ducks, snakes slithering silently...and all are sure to be gulped down, with pleasure.

In short, consumers throughout China have a vastly greater choice in food, including both fresh food and processed food. Improvements in both the distribution and transportation infrastructure allows fresh produce to be distributed throughout the country, as well as imported from other countries. While in northern regions of China choices in vegetables used to be very limited during the winter, now vegetables are available throughout the year. In addition, farmers and vendors are becoming more aware of consumers’ desires and have begun to respond to trends. For example, responding to seasonal preferences, vendors offer cut and prepared food items for use in *huo guo* (hot pots) in the winter (Zhou Y. 1996), and wild vegetables in spring (Li
Altogether, greater efficiency now exists between consumer needs and product offerings.

Generally, development is initially associated with a growing separation between food producers and consumers, and a movement towards processed foods, including canned, frozen, packaged, semi-prepared, and prepared foods (Goldman 1974; Kaynak 1985; Yavas, Kaynak, and Borak 1981; Kaynak and Rice 1988). Once rare, packaged food of many types, including canned and frozen, is now readily available in China (Clifford 1992; Duggan 1990; Friedland 1993). International packaged food corporations such as Procter & Gamble, Philip Morris, and Quaker Oats have steadily increased their presence in China, competing alongside Chinese food companies, with brand names such as Maling, Lion Brand, and Pagoda. Independent importers, wholesalers, and retailers increasingly represent a major force in the food distribution industry of China (McNiel and Nilsson 1994). The gross value of imported processed food sales reached almost $300 million in 1993 and is projected to continue to increase for years to come (Wall Street Journal 1993).

An Increase in the Number and Types of Restaurants

In China, the food and hospitality industry is enjoying tremendous growth throughout China, but particularly in urban areas (Sampson 1994). In the thirty years prior to the economic reforms, the only restaurants were state-run and quite limited in number, with service and quality generally poor. In the 1990's a large number of restaurants exist, from tiny to huge, and from inexpensive to ostentatious. The growth in number of millionaires in China has been accompanied by a growth in lavish banquets at
pricey restaurants. Zha (1995, p.127) writing about urban areas of China states, "I can't think of anywhere else I've seen restaurants presenting for the super rich such astonishingly extravagant meals with such guiltless, and some might say tasteless, flair."

A new type of restaurant that began to appear in urban areas of China in the early 1990's is the Western style fast food restaurant (Baldinger and Reardon 1992; Lo 1993). Although foreign investors were shaken by the mid-lease eviction of the largest McDonald's restaurant in China from its prime location in Beijing (Economist 1994b), plans for the development of fast food franchises throughout China continue. For example, in 1994, KFC (formerly Kentucky Fried Chicken) announced plans to expand to 45 Chinese cities over the next four years (Martin 1995). In addition to McDonald's and KFC, Church's Fried Chicken, Pizza Hut, Haagen Daz, Kenny Roger's Roaster, Dairy Queen, and TCBY have all opened one or more store in China in the 1990's (Casper 1996; Kamis 1996). Meanwhile, the Chinese government has tagged the Chinese fast food industry as a priority for growth in its ongoing efforts to stimulate the economy (Miu and Leung 1994), and even has initiated an official campaign to encourage the Chinese fast food industry to compete with the Western fast food restaurants (Ma 1996b).

Outdoor food stalls, offering snacks to passing pedestrians, are also increasing in number and sales volume as a greater number of entrepreneurs try their hand in China's emerging market economy. Entrepreneurs with the good fortune to live in first floor apartments sell snacks foods out of their home, including jiaozi (dumplings), fried
noodles, and fried rice (Bao 1996). These products are frequently purchased as "carry out" to supplement family meals.

During this period of growth, restaurants have been opening (and closing) all over China. In the face of steep competition, restaurants are specializing to a much greater extent and are offering innovative services. For example, a new service offered by some restaurants is the delivery to businesses of hefan (boxed lunches), which include traditional Chinese fare—e.g. rice, a small piece of meat, and several vegetables (Zhong 1996). Some restaurants are offering cooks-to-hire, who go directly to consumers' homes on a one-time-basis to cook meals for special occasions (Lu and Zhi 1996). In summary, the rapid growth of restaurants is creating greatly expanded food purchase alternatives to meet the lifestyle changes being experienced by Chinese consumers.

THE CONSUMER ENVIRONMENT

As shown in Figure 3.3, purchase choice in China is currently experiencing the effects of four major trends in the consumer environment: 1) rapid growth in income; 2) expanded leisure activities; 3) a more competitive work atmosphere; and 4) greater penetration of household appliances.

Rapid growth in income

Perhaps the most striking changes in the consumer environment resulting from the economic reforms have been the greatly increased incomes and spending power. In urban China, per-capita average annual earnings has increased from 343 yuan (approximately $38) in 1978 to 4,908 (about $510) for the first half of 1996 (Beijing Review 1997). While these figures are deceptive due to the impact of inflation and the
decrease of government services, they still represent a substantial raise in income. Consumer spending is reported to have increased by three fold since 1979, even taking inflation into account (Jian 1994). The growth in spending ability has led to a remarkable increase in demand for consumer products of all varieties, including appliances, services, entertainment, and better quality food. Products in demand include manifestations of a modern consumptive life that were unthinkable even ten years ago, such as skateboards (Beijing Review 1994c), pedigreed dogs (Kolatch 1994), and Bruce Springsteen concert tickets (Goll 1994). Predictably, this growth in consumer spending has also deeply affected the structure and complexity of the food retail industry. For example, pizza (Bugg 1995), baby food (Duggan 1990), and breakfast cereals (Kimelman 1994) have been among the benefactors of the new consumer environment.

Figure 3.3
The Political/Economic Environment and the Consumer Environment in China in the 1990's

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Expanded Leisure Activities

Accompanying the rising consumer spending is new forms of leisure activities. Some of these activities can be pursued in the home, such as watching television, raising pigeons, and painting. Others, such as karaoke, qi gong, disco dancing, and antique collecting, take place in public (see Jones 1992; Lull 1993; and Zha 1994). Many new facilities have been opening to accommodate these new activities, including bowling alleys, night clubs, amusement parks, and recreation facilities. In addition, tourism is on the rise.

These new activities that are occupying consumers' spare time affect food consumption in several important ways. First, as families spend longer periods of time away from their homes, whether relaxing in a park or attending a cultural activity, they find themselves away from their kitchen during meal time. Unless they pack a meal to take with them, they must use a restaurant or buy processed food from a food stall. Second, many leisure activities, such as bowling and attending movies, seem to lend themselves to the purchase of processed food such as sunflower seeds, candy, and salty snacks. Third, the rebirth of tourism and traveling is placing consumers in situations where they cannot return home to cook their own meals and must rely on restaurants or processed food for nourishment. Finally, the growth of leisure activities means that consumers have busier, fuller lives. Accommodating these new hobbies may ultimately entail decreasing time spent shopping for food and cooking.
More Competitive Work Atmosphere

The increase in privatization, described in the section on the political and economic environment, is also affecting the consumer environment. An increasing number of Chinese citizens are opting to work for private enterprise, or start their own businesses. State enterprises are now sometimes allowed to declare bankruptcy, creating laid-off workers who must generate their own income for sustenance. Thus, some workers have been, sometimes reluctantly, forced into entrepreneurship or private employment due to unemployment (Kahn and Smith 1995). Meanwhile, others have enthusiastically opted to xia hai or "leap into the sea", the slang for initiating their own private business ventures (Chen 1994b). The private industries that are increasingly having an impact on the economy of China are also forcing greater efficiency upon the state corporation.

Chinese residents tend to accept jobs with private enterprises, or start their own private businesses cautiously. Many Chinese who opt to work in the private sector have spouses who have retained their state jobs, allowing the household to continue to reap the benefits provided by the state. Most entrepreneurs, however, are reported to have small, unregistered businesses that they conduct in addition to their state jobs. This allows them to retain state benefits, while living on their wages from moonlighting.

Because "capitalist" activity was punishable by imprisonment or even death for three decades, and official policies frequently changed in a matter of months, only the few, the young, and the particularly daring were willing to hazard private business activities in the early 80's (Kristof 1993; Thurston 1993). Now, it is widely reported that many urban
residents seek ways to earn extra income (WuDunn 1993). As Chu and Ju (1993) present it, a latent work ethic has appeared, or, as the *Wall Street Journal* (1993, p.R1) less flatteringly states, "That's China, where everyone, not just the foreigner, is out to make a buck." While the effect of privatization on Chinese citizens has been variable, it is certain that a net effect of the influences of the economic environment is that urban lives are busier in the 90's (Sterba 1993; WuDunn 1993).

**Greater Penetration of Household Appliances**

Another important trend affecting food purchase choice is the growth in ownership of household appliances. While prior to 1979 only 5% of urban residents owned refrigerators, in 1995 most households had refrigerators. Other appliances related to food consumption practices that have grown steadily in penetration are rice cookers, microwave ovens and food processors (Li 1995).

One factor in the consumer environment of urban China that has remained relatively stable is automobile ownership. While the penetration of automobiles has increased in China, the large majority of automobiles are owned by corporations rather than by private citizens. Even in Shenzhen, the city with the largest proportion of wealthy residents, only 2.8 percent of families owned cars in 1995 (Li 1995). This means that almost all food shoppers in China still conduct their shopping in the course of their daily lives by foot, on bicycle, or by public transportation on their way home from work. The pervading mode of transportation physically limits the quantity and package size of food products that the shopper can bring home. Still, the increased availability of taxis,
and, ultimately, an expected increase in private automobile ownership could affect the future consumer environment.

**SUMMARY**

This chapter detailed important changes that are occurring in the food purchase environment in urban China. In the macroenvironment, the liberalization of trade policy, increased privatization of industry, and rapid increase in GNP have opened the Chinese economy to global influences. In the retail environment, the last ten years has seen greatly expanded option in food retail outlets, much greater variety in available food products, and a huge increase in the number and types of restaurants. In the consumer environment, incomes are rising, greater options for leisure activities exist, the work atmosphere is more competitive, and there is a greater penetration of household appliances.

Clearly, these environmental conditions have been greatly in flux. The changes related in this chapter pertain to urban China in general, but they are also highly descriptive of the atmosphere in the city of Nanjing. Beginning with the next chapter, the study will narrow its focus to Nanjing, as a case study of the changes occurring in food purchase practices in China.
CHAPTER FOUR

FIELD STUDY

The study depended on a number of research approaches, summarized in Table 1.1, to assure a clear and accurate understanding of the dynamic environmental elements affecting purchase choice in contemporary urban China. Similar to other studies in recent years that have investigated the experience of consumers from within their own environments (e.g. Arnould 1989; Belk, Wallendorf, and Sherry 1989; Hill 1991; Holt 1995; Penaloza 1994; Schouten and McAlexander 1995; Sirsi, Ward, and Reingen 1996) the depth of the insight gained in this research depended on observation and participation. The heart of this study, then, was based upon prolonged interactions with twenty individuals, as they performed food consumption activities for their families. The information gained from these observations was supplemented with data from focus groups and retailer interviews, photographs, field notes, and information from the popular media in Nanjing. Further, as the member of a family of four shopping, cooking, and eating in a range of places in Nanjing, the author was as much a part of the urban environment as a white foreigner can be. The author shopped in the same food markets as her informants, and her children attended the same schools as their children. In addition, many hours were spent in the homes of Chinese friends. This immersion in the environment lends additional insight to the study.

METHODOLOGY

In the following sections, first the specific research methods used for the study will be detailed. Then the field setting will be described, including the city of Nanjing,
Research Methods

Structured Observations of Primary Food Shoppers. Nonparticipant observation, in which the researcher systematically observes behavior without becoming an active participant in the activities, was used to observe consumers as they shopped and cooked for their families. This method was chosen due to its usefulness for examining activities of everyday life that are so routine to the participants that if asked to describe the behavior, people are likely to leave out major details (Arnould and Wallendorf 1994). Food consumption habits are such a part of individuals' everyday routines that they are not easily discussed, or even recognized (DeVault 1991). By bringing into consciousness the detailed steps and decision processes involved in food consumption, the structured observations allow for an in-depth examination of food purchase experiences.

To study how trips to the food market relate to the daily habits and rituals of consumers, nonparticipant observations were conducted with primary food purchasers, defined as individuals who conduct the majority of food shopping for their families. Twenty informants agreed to allow the author and/or a Chinese research assistant accompany them as they conducted a routine food shopping trips. Each formal observation started and ended at their homes. The data that was collected was structured via an observation guide that listed specific data to record and sample questions (see Appendix 1). Data that was recorded included the duration of the
shopping trip, the types of retail establishments patronized, the type of transportation used, and the distance of the shopping area from the home. The respondents were quizzed extensively on their activities, particularly on the mental choices involved in their choices of retail establishments and food products (e.g. Why did you select that particular pork vendor out of twenty in a row? Why are you buying carrots today? Why didn’t you negotiate with the celery vendor?). At the consumers’ homes, the behaviors that were observed included: which food items are used immediately and which are stored; how much time was spent in food preparation; which household members participated in food preparation; and how many dishes were prepared for the meal. Of particular interest was how processed food was incorporated into the meal. The home environment was also studied and an inventory conducted of what food items and condiments were stored. During all of the observations, photographs were taken during each stage of the food shopping and preparation process. The photographs were useful for comparing the rituals of shopping and cooking across households (Heisley and Levy 1991). The observations were scheduled throughout a nine month period, so the seasonal variations in food shopping behavior could be analyzed.

The choice of households was selected through purposive sampling, i.e., selecting respondents sequentially and judiciously according to issues and questions that arose as the research unfolded (Lincoln and Guba 1985). In particular, informants were recruited that would allow the “testing of boundaries” of the regularities and patterns of the observations (Schouten and McAleender 1995; Hill 1991). Variety and contrast was used as a guide to recruitment (Penaloza 1994). For example, following the observation
of a retired informant who stressed that she had plenty of time for shopping and cooking, a busy professional young mother was recruited. Following the observation of a rather poor family of three who limited their meat consumption to save money, a newly wealthy family was observed who not only bought expensive meat, but ate in upscale restaurants frequently. The contrasts that were used as guides to recruitment included young/old; worker/professional; male/female; large household/single member household; low income/high income; busy/not busy; household with baby/household with older child. As a result, the sample was rather diverse, including, for example, newlyweds, a low income bachelor artist, married physicians, and a three-generation household (see Table 4.1 for a description of the respondents), and the behavior was investigated in a variety of settings (Wallendorf and Belk 1989).

Both the author and a research assistant participated in the first ten observations, and the remaining ten observations were divided. This allowed the analyses to benefit from the researchers' different cultural outlooks (Triandis, Malpass, and Davidson 1972). Having two pairs of eyes, one native and one foreign, added insight to the study. The foreign researcher could identify patterns in the observed behavior that might be so common as to escape notice by a native researcher. For example, the American researcher discovered that many Chinese shoppers are reluctant to put vegetables in the refrigerator, since they feel that refrigeration spoils the fresh taste of vegetables. The Chinese researcher was so familiar with this practice that she did not realize it was noteworthy. On the other hand, the native research assistant was able to detect individual differences in behavior too subtle for the foreign eyes. An example is that she
<table>
<thead>
<tr>
<th>Profession</th>
<th>Gender</th>
<th>Age</th>
<th>Household Size</th>
<th>Special characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shop worker</td>
<td>Male</td>
<td>40</td>
<td>3</td>
<td>Lower income household; household members include the informant’s 71-year-old mother and 33-year-old mentally-handicapped brother</td>
</tr>
<tr>
<td>Retired mathematics middle school teacher</td>
<td>Female</td>
<td>55</td>
<td>5</td>
<td>Household includes three adult unmarried children.</td>
</tr>
<tr>
<td>Works at home</td>
<td>Female</td>
<td>42</td>
<td>3</td>
<td>Informant was recently laid off from her factory, so she now makes money at home folding boxes for a pharmaceutical company; household includes a 16-year-old boy.</td>
</tr>
<tr>
<td>Physician</td>
<td>Female</td>
<td>53</td>
<td>3</td>
<td>Informant’s husband is also a physician; household includes the 23-old son who works for a import-export firm.</td>
</tr>
<tr>
<td>Artist</td>
<td>Male</td>
<td>50</td>
<td>1</td>
<td>A relatively poor bachelor artist who lives by himself.</td>
</tr>
<tr>
<td>Insurance manager</td>
<td>Female</td>
<td>23</td>
<td>3</td>
<td>This recent college graduate has taken over the family shopping recently while her mother recovers from cancer surgery.</td>
</tr>
</tbody>
</table>

(table con’d.)
<table>
<thead>
<tr>
<th>Profession</th>
<th>Gender</th>
<th>Age</th>
<th>Household Size</th>
<th>Special characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountant</td>
<td>Female</td>
<td>29</td>
<td>3</td>
<td>A relatively higher income family with a 4-year-old son</td>
</tr>
<tr>
<td>Unemployed</td>
<td>Female</td>
<td>32</td>
<td>4</td>
<td>An unemployed woman who plans to start her own business selling desserts on the street. The household includes two girls, ages 6 and 13. The older daughter is a product of the informant's husband's former marriage.</td>
</tr>
<tr>
<td>Factory instructor</td>
<td>Female</td>
<td>35</td>
<td>3</td>
<td>The informant's husband is the general manager of a trade company; the household has a very high income; household includes a 7-year-old girl.</td>
</tr>
<tr>
<td>Railway worker</td>
<td>Male</td>
<td>45</td>
<td>3</td>
<td>Husband does almost all shopping and cooking for the family; household includes an 11-year-old son.</td>
</tr>
<tr>
<td>Chemist</td>
<td>Female</td>
<td>52</td>
<td>5</td>
<td>Household includes three adult unmarried children</td>
</tr>
<tr>
<td>Factory worker</td>
<td>Male</td>
<td>35</td>
<td>3</td>
<td>The informant's wife operates a business as a tailor out of their home and works about 70 hours a week. The family's one-room home serves a double-duty as a business. The family includes a 7-year-old daughter.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Profession</th>
<th>Gender</th>
<th>Age</th>
<th>Household Size</th>
<th>Special characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railway worker</td>
<td>Male</td>
<td>49</td>
<td>3</td>
<td>This typical worker family includes a 17-year-old son.</td>
</tr>
<tr>
<td>Graduate student</td>
<td>Female</td>
<td>24</td>
<td>2</td>
<td>Relatively higher income newlyweds.</td>
</tr>
<tr>
<td>Retired couple</td>
<td>Male and female</td>
<td>67; 69</td>
<td>4</td>
<td>The older, retired couple shop together twice a week. They are living with their daughter and 9-year-old granddaughter to help out while their son-in-law is in the U.S.</td>
</tr>
<tr>
<td>Factory worker</td>
<td>Male</td>
<td>43</td>
<td>4</td>
<td>The three-generation family includes the informant’s 76-year old mother, his wife, and his 16-year-old-daughter.</td>
</tr>
<tr>
<td>Factory worker</td>
<td>Female</td>
<td>41</td>
<td>3</td>
<td>The family of three includes a 9-year-old son.</td>
</tr>
<tr>
<td>Engineer</td>
<td>Female</td>
<td>53</td>
<td>2</td>
<td>Empty nesters</td>
</tr>
<tr>
<td>University professor</td>
<td>Female</td>
<td>45</td>
<td>3</td>
<td>The busy family includes an 18-year-old male high school senior.</td>
</tr>
<tr>
<td>Librarian</td>
<td>Female</td>
<td>54</td>
<td>8</td>
<td>The huge three-generation family, all under one roof, includes the grandparents, and two sons and their families.</td>
</tr>
</tbody>
</table>

asked an informant if he ate the dried berries he had stored in the cabinet for their taste or for their medicinal qualities—a question that would not have occurred to the foreign researcher.
The observations took from two and a half to five hours each. As the food purchasers were observed on their shopping excursions and preparing their meals, their verbal protocols (Bettman 1979) were audio taped. Accompanying the consumers on their shopping trips permitted a greater understanding of the research topic than in depth interviews would have allowed. Observing the consumers in the appropriate context not only provided clues for meaningful questions to broach, but assisted the consumer in providing honest, detailed answers. Furthermore, these observations provided insights into food purchase choices that survey data alone would not have allowed.

Each of the twenty observations was described in written summaries that include verbatim quotes of the respondents. The first ten summaries were written by the author, but carefully reviewed by her research assistant to ensure veracity (Belk, Sherry, and Wallendorf 1988). The second ten summaries were individually authored by one of the researchers, according to who conducted the observation.

**Interviews of Food Retailers.** To identify new food consumption trends and learn more about the food consumption environment, in-depth interviews with twenty individuals who work in the food retail industry of Nanjing, either as employees or entrepreneurs, were conducted. As with the nonparticipant observations, the subjects were chosen via purposive sampling, with evolving research interests dictating the choices. Subjects were selected for the purpose of gaining a understanding of the types of food choices, both old and new, available to Nanjing residents. Again, variety and contrast were important criteria. Contrasts included traditional/new, private/state/self-employed, upscale/common, and large/small. For example, the traditional category
included the manager of the oldest and largest state-owned food store in Nanjing and the manager of a food market, while the new category included the manager of a bakery and the manager of a Sino-Australian joint venture supermarket, both newly opened. When a McDonald's restaurant opened in Nanjing for the first time in January 1996, the McDonald's manager was interviewed. A description of all 20 interviews, which were conducted between September 1995 and May 1996, can be found in Table 4.2. Two students from the School of International Business of Nanjing University accompanied the author on some of the interviews. They approached the potential interviewees and introduced the author, provided occasional translation assistance, asked some of their own questions, managed the tape recorder, and took photographs.

Except for the McDonald's manager and a "green foods" researcher, none of the interviews were pre-scheduled. Instead, the informants were approached and asked if they would mind answering questions regarding their work and having their answers recorded. Remarkably, except for one individual, all were willing to be interviewed and audio taped. The sole exception was the disgruntled manager of a state-owned restaurant, who refused to have his comments taped, but was more than happy to air his complaints at some length off the record.

The semi-structured interviews lasted from fifteen minutes to three hours. A question guide informed the interviews (see Appendix 2), but a flexible format allowed for questions to be added or altered as new topics of interest emerged. The interviews were later translated into English and transcribed verbatim by the research assistants. Three of the interviews were actually conducted in English: an American restaurant
Table 4.2
Food Retail Interviewees

<table>
<thead>
<tr>
<th>Position</th>
<th>Food Retail Establishment</th>
<th>Notes</th>
<th>Sample Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>General manager</td>
<td>Ren Zhong Shi Pin Supermarket</td>
<td>The interview took place the day before this Australian-Chinese joint venture opened, the first joint venture supermarket in Nanjing</td>
<td>Supermarkets of this stature did not exist here five years ago. What encouraged you to open this business?</td>
</tr>
<tr>
<td>General manager</td>
<td>Chang Jian Nanbei Store</td>
<td>This food store is the largest in Nanjing. It is part of a large food business that also includes a wholesale business, a newly-opened restaurant, and a new chain of small supermarkets.</td>
<td>Have you been affected by changes in product preference?</td>
</tr>
<tr>
<td>Pork vendor</td>
<td>Stall at Shanghai Road Food Market</td>
<td>Like other pork merchants, this vendor buys a live pig early in the morning, butchers it, then brings the parts to his stall to sell during the day.</td>
<td>Can you tell me a little bit about how bargaining works?</td>
</tr>
<tr>
<td>Manager</td>
<td>Beijing Shui Jian Restaurant</td>
<td>This restaurant specializes in jiaozi (dumplings), a popular Chinese snack. The manager has leased the restaurant from the state on a one-year contract.</td>
<td>How has your restaurant been affected by the growth in this area?</td>
</tr>
<tr>
<td>Manager</td>
<td>Kentucky Fried Chicken branch at Shanxi Road.</td>
<td>This store is one of five branches of KFC, which opened its first branch in Nanjing in 1993.</td>
<td>Why do you think people like to eat at KFC?</td>
</tr>
</tbody>
</table>

(table con’d.)
<table>
<thead>
<tr>
<th>Position</th>
<th>Food Retail Establishment</th>
<th>Notes</th>
<th>Sample Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Hollywood Brewpub</td>
<td>This interview with the American president of this restaurant took place the day he was signing the final paperwork to sell his part of the restaurant. He had had an unpleasant experience in the China restaurant business and lost a great deal of money.</td>
<td>Tell me about your customers.</td>
</tr>
<tr>
<td>Cabbage vendor</td>
<td>Field next to Shanghai Road Food Market</td>
<td>This Anhui Province farmer had come temporarily to Nanjing hoping to make some money selling cabbage (bought in Nanjing) during the busy cabbage season. He had not sold much cabbage and was just hoping to sell enough to cover his bus ticket back home.</td>
<td>What are the peak times for your business?</td>
</tr>
<tr>
<td>Vegetable vendor</td>
<td>Stall at Shanghai Road Food Market</td>
<td>Like all food market vendors, this vegetable seller rents his booth on a monthly basis from the state-run open air food market.</td>
<td>Why did you choose these particular vegetables to sell?</td>
</tr>
<tr>
<td>Owner</td>
<td>Cooked poultry stand</td>
<td>Throughout Nanjing (and China) are small shops that sell cold cooked duck, chicken, and other kinds of meat for convenient carry out. This owner had recently quit his secure factory job to try his hand at running his own business.</td>
<td>What do you do to attract regular customers?</td>
</tr>
<tr>
<td>General manager</td>
<td>Nongquan Restaurant</td>
<td>This privately-owned, medium sized, rather elegant restaurant caters to business clientele.</td>
<td>What do you do to make your restaurant special?</td>
</tr>
</tbody>
</table>

(table con’d.)
<table>
<thead>
<tr>
<th>Position</th>
<th>Food Retail Establishment</th>
<th>Notes</th>
<th>Sample Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Relations Director</td>
<td>Nanjing headquarters of Kentucky Fried Chicken</td>
<td>The foremost topic on this KFC manager’s mind was the imminent opening of Nanjing in McDonald’s, the first western fast food competition to KFC since it opened in Nanjing in 1993. The manager felt confident that, by expanding interest in Western fast foods, McDonald’s would actually be good for KFC’s business.</td>
<td>Do you target advertising towards children?</td>
</tr>
<tr>
<td>Owner</td>
<td>Noodle cafe</td>
<td>This restaurant is one of many privately-owned small business that sells noodles and other quick, inexpensive meals. Customers sit on tables in the street, roofed, but otherwise open to the elements. Though it was a cold, snowy day, business was booming.</td>
<td>How is your restaurant different from other noodle restaurants nearby?</td>
</tr>
<tr>
<td>Stock manager</td>
<td>Yunan Road Supermarket</td>
<td>This is a branch of a chain of state-run supermarkets that have begun to appear in Nanjing only in the last couple of years. Supermarkets in Nanjing are usually quite small and are called supermarkets only because they are self-service.</td>
<td>What kinds of products are most popular in your supermarket?</td>
</tr>
<tr>
<td>General Manager</td>
<td>Huasha Supermarket</td>
<td>This newly-opened supermarket is the first supermarket in Nanjing to sell a significant amount of fresh produce, including meat and vegetables.</td>
<td>Do you predict that consumers in Nanjing will use supermarkets more and more?</td>
</tr>
</tbody>
</table>

(table con’d.)
<table>
<thead>
<tr>
<th>Position</th>
<th>Food Retail Establishment</th>
<th>Notes</th>
<th>Sample Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>Administrative office of Gulou Market</td>
<td>Gulou Market, established in 1983, was one of the first open air free markets in Nanjing to be opened, following initiation of economic reforms in China. The market includes restaurants, clothing and housewares stalls, and food stalls. It will soon be closed to make room for a new resort hotel.</td>
<td>Do you sometimes take actions to actively protect consumers?</td>
</tr>
<tr>
<td>Shop assistant</td>
<td>Guanshengyuan Bakery</td>
<td>Virtually nonexistent in Nanjing ten years ago, small bakeries, selling bread, cakes (especially birthday cakes), and pastries, are now all over the city.</td>
<td>What changes have occurred in China that have led to people buying breads and cakes?</td>
</tr>
<tr>
<td>Manager</td>
<td>Administrative office of Shanghai Road Food Market</td>
<td>This typical open air food market covers an entire street, with stalls selling fresh, frozen, packaged, cooked, and live products for consumption.</td>
<td>How has the food that is sold in this market changed?</td>
</tr>
<tr>
<td>General manager</td>
<td>California Fried Chicken</td>
<td>This newly-opened restaurant is located right next to the popular Shanxi Road Kentucky Fried Chicken. It is solely owned by an Indonesian businessman who bought the franchise agreement from a U.S. company.</td>
<td>Do you think the Nanjing market is open for accepting Western food?</td>
</tr>
</tbody>
</table>

(table con’d.)
<table>
<thead>
<tr>
<th>Position</th>
<th>Food Retail Establishment</th>
<th>Notes</th>
<th>Sample Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher</td>
<td>Green food products</td>
<td>&quot;Green food&quot; is a state-owned trademark for food products that are grown with reduced amount of chemical fertilizers, making the food safer to eat and saving preparation time for the consumer. This researcher discussed methods they are developing to reduce fertilizer use and consumer response to this concept.</td>
<td>Tell me about &quot;green food.&quot;</td>
</tr>
<tr>
<td>General Manager</td>
<td>McDonald's, Nanjing</td>
<td>McDonald's opened its first brand in the Fuzimiao area of Nanjing in November 1995 and has plans for 14 more branches within 3 years.</td>
<td>What are your long-range plans?</td>
</tr>
</tbody>
</table>

(table con’d.)
owner, a Singaporean McDonald's manager, and a Chinese researcher of "green foods" products who speaks excellent English. Given the fact that all of these interviewees are dependent on some anticipation of changing tastes for their livelihood, they can be seen as genuine "experts" on consumers.

**Focus Groups.** During December, 1995 three focus groups, composed of Nanjing residents who performed the majority of the food shopping for their family were conducted. The focus groups clarified specific areas of interest that were emerging as a result of other research activities, as well as assisted in issues related to the planned survey (Calder 1977; Morgan 1988). The groups were divided by age range. The first group consisted of 25- to 35-year-old consumers, the second of 34- to 45-year-old consumers, and the third of consumers 46 years old and older. The groups were segregated by age range to explore cohort/age difference in purchase behavior—e.g. attitudes toward change in general and willingness to use new food purchase options. The groups ranged in size from five to eleven respondents, and consisted of males and females, although the females outnumbered the males since females tend to shop more for food than males in Nanjing. Aside from age and food shopping experience, there were no specific requirements for participation in the groups, but an attempt was made to find respondents who were diverse in location of residence and profession. Table 4.3 lists characteristics of the respondents.

The focus groups were conducted in the living room of the author's apartment in the Nanjing-Hopkins Center, which was centrally located and easily accessible. The group members were offered no incentives for participation, but were given a small gift...
of an imported candy bar with a small Christmas ornament attached upon completion of the interview. Participants were also served soft drinks and snacks (cookies, candy, pumpkin seeds, and dried fruit). Respondents who did not live within walking distance of the research location were encouraged to take a taxi and were reimbursed for their taxi fare.

A Chinese research assistant was the lead moderator of the two hour groups. Because the research assistant had no experience with focus groups, a “practice” focus group was first staged with eight Chinese graduate business students who also lived in the Hopkins Center. A detailed question guide was followed for the focus groups (see Appendix 3), but the moderator was encouraged to allow the groups freedom to drift to related pertinent topics. The focus groups were used to gain a general understanding of changing food tastes, with topics explored including attitudes toward various types of food retailers and food purchase patterns. In addition, topics related to the upcoming survey were discussed, including attitudes toward change in general, attitudes toward time reduction behavior, and attitudes toward use of restaurants and use of processed food. This allowed an exploratory investigation of the relationship among constructs and assisted in the development of scale items for the measure instrument.

Table 4.3
Focus Group Participants

<table>
<thead>
<tr>
<th>#</th>
<th>Age</th>
<th>Gender</th>
<th>Profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30</td>
<td>Female</td>
<td>Graduate student/teacher</td>
</tr>
<tr>
<td>1</td>
<td>28</td>
<td>Female</td>
<td>Kindergarten teacher</td>
</tr>
<tr>
<td>1</td>
<td>34</td>
<td>Female</td>
<td>Library assistant</td>
</tr>
</tbody>
</table>

(table con’d.)
<table>
<thead>
<tr>
<th>#</th>
<th>Age</th>
<th>Gender</th>
<th>Profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>34</td>
<td>Female</td>
<td>Nurse</td>
</tr>
<tr>
<td>1</td>
<td>32</td>
<td>Female</td>
<td>Historian</td>
</tr>
<tr>
<td>1</td>
<td>34</td>
<td>Female</td>
<td>(did not say)</td>
</tr>
<tr>
<td>1</td>
<td>30</td>
<td>Female</td>
<td>Salesperson</td>
</tr>
<tr>
<td>1</td>
<td>27</td>
<td>Female</td>
<td>Factory worker</td>
</tr>
<tr>
<td>1</td>
<td>33</td>
<td>Female</td>
<td>Power plant worker</td>
</tr>
<tr>
<td>1</td>
<td>33</td>
<td>Female</td>
<td>Factory worker</td>
</tr>
<tr>
<td>1</td>
<td>28</td>
<td>Female</td>
<td>Factory worker</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
<td>Female</td>
<td>Salesperson</td>
</tr>
<tr>
<td>2</td>
<td>45</td>
<td>Female</td>
<td>Factory worker</td>
</tr>
<tr>
<td>2</td>
<td>45</td>
<td>Female</td>
<td>Factory worker</td>
</tr>
<tr>
<td>2</td>
<td>34</td>
<td>Female</td>
<td>Factory worker</td>
</tr>
<tr>
<td>2</td>
<td>(inaudible)</td>
<td>Male</td>
<td>(inaudible)</td>
</tr>
<tr>
<td>2</td>
<td>40</td>
<td>Female</td>
<td>Middle school teacher</td>
</tr>
<tr>
<td>2</td>
<td>40</td>
<td>Female</td>
<td>Factory worker</td>
</tr>
<tr>
<td>2</td>
<td>44</td>
<td>Male</td>
<td>Literature professor</td>
</tr>
<tr>
<td>3</td>
<td>62</td>
<td>Female</td>
<td>Retired</td>
</tr>
<tr>
<td>3</td>
<td>57</td>
<td>Female</td>
<td>Secretary</td>
</tr>
<tr>
<td>3</td>
<td>46</td>
<td>Male</td>
<td>Factory worker</td>
</tr>
<tr>
<td>3</td>
<td>57</td>
<td>Female</td>
<td>Professor</td>
</tr>
<tr>
<td>3</td>
<td>54</td>
<td>Female</td>
<td>Professor</td>
</tr>
</tbody>
</table>

**Field Setting**

The major sites of observation for this research were the food markets and the homes of consumers. These sites will be described below to set the research findings.
within their environmental context, beginning with a brief discussion of the city of Nanjing.

**Nanjing.** Located 300 kilometers east of Shanghai, Nanjing, with a population of 2.8 million, is the largest city in Jiangsu Province. With an urban district of 119.8 square kilometers, Nanjing is bordered by the Yangtze River to the east and mountains on the other three sides (Yao and Zhong 1994). Nanjing has a rich history, having served as the capital city of the Kingdom of Wu (Three Kingdoms Period, 220-265 A.D.), the Eastern Jin Dynasty (317-420 A.D.), the Southern Dynasties of Song, Qi, Liang, and Chen (420-589 A.D.), temporarily for the Southern Sung (1126-1179 A.D.), and also for the first two emperors of the Ming Dynasty (1368-1403 A.D.). The Nationalist government also used Nanjing as its capital until it fell to the Japanese, and later to the Communist forces under Mao Zedong (Eberhard, 1977).

Nanjing is an industrial city, specializing in electronics, machinery, petrochemical products, and building materials (Yao and Zhong 1994). The *techang*, or specialty food products that the city is known for include salted pressed duck, salted duck gizzards, and sausages (Wu and Zhang 1988).

**Food Markets.** Nanjing has 61 major food markets, scattered conveniently throughout all of the residential areas in the city. As found in the survey, the majority of households are within 500 meters of a market; virtually all families live within 1500 meters of a food market. Despite the large number of alternative food retail options that have emerged in Nanjing in recent years, the food market remains the primary outlet for the daily food needs of all Nanjing households. The use of food markets for
household food shopping is a matter of choice, rather than necessity, since by 1996 virtually all food markets had a supermarket in close proximity. Explorations of over 40 supermarkets in Nanjing found only two supermarkets, one opened in 1995 and one opened in 1996, that sold fresh vegetables or meat. Instead supermarkets concentrate on packaged goods, including staple condiments, soft drinks, snack foods, canned goods, and lavishly packaged gift items. These supermarkets are frequently state-owned chains, and often occupy the spaces formerly held by the state-owned grain and oil stores of the days of food rationing and coupons (Ma 1996a).

Food markets are located in a wide variety of places. Some are housed in large warehouses or semi-covered pavilions, some occupy a crisscross of alleys, and others take over entire streets. While most of the food markets were open air at the time of the study, the Nanjing Trade and Business Bureau, the agency which has jurisdiction over all retail sites, has decreed that all 61 of the food markets within the city limits must be enclosed by 1999 to help control sanitation and cleanliness (Gong 1996). At present, even the smaller Nanjing markets feature a wide variety of vegetables, as well as pork and fish, year round. The bigger Nanjing food markets can easily rival large Western gourmet supermarkets in their variety and breadth. Increasingly, semi-processed convenience items are appearing in many of these food markets. Jiaozi pi (dumpling wrappers), ground pork, and fish balls are common. In distinct departure from the past, some Nanjing food markets are known for their specialties, such as exotic sea food or gourmet tofu, and for special occasions shoppers will go considerable distance to procure these treats. The food markets also often feature food that has already been
cooked and prepared, most frequently traditional Chinese snacks, such as baozi, mantou, youtiao, and shaobing. Every Nanjing food market has vendors selling live fish and other seafood in tubs with water that is kept in constant circulation, via manual or mechanical means. Weakened fish are laid on the street in front of the tubs and sold for discount prices. Live ducks and chickens are also a staple item of most food markets. Other live animals, such as frogs, snakes, game birds, soft-shell turtles, snails, and insects, are regular features of some markets. Many food markets incorporate vendors selling complementary items, such as sewing notions, housewares, and clothing. As in the West, the food markets tend to attract other businesses in proximity, particularly restaurants, pharmacies, and general stores, as retailers work to take advantage of consumer concentrations.

Each food market is a collection of hundreds of individual entrepreneurs, regulated by a commercial administrative office representing the city government. The administrative office in each market plays multiple roles, including licensing vendors, protecting legal transactions, protecting the rights of consumers, assuring fair weights and measures, mediating disputes between vendors, and maintaining the cleanliness of the market. While the state no longer issues food ration coupons, which were common into the mid-1980's to consumers, the influence of the state in the food purchase of consumers is still visible and profound.

When the “free” markets for food first appeared in Nanjing in the early 1980's, the vendors were farmers who brought their own vegetables to the markets, selling the produce that they had grown in excess of their commitment to the state at whatever price
the market could bear. By the mid 1990's, due to the monthly fee of several hundred yuan to rent a space in the market, these farmers had been largely replaced by middlemen who buy produce at Nanjing's wholesale markets. While many of these middlemen are from farm families, often from northern Jiangsu or nearby Anhui Province, they sell produce that they purchase each morning from Nanjing's wholesale markets.

Farmers still can be seen arriving at the Nanjing food markets, sometimes carrying hundreds of kilograms of vegetables on their shoulders, but they risk being fined by the market administrators for selling illegally. These farmers often are forced instead to sell their wares to the market vendors for low prices to avoid paying the fine and having their goods confiscated. Some food markets provide a special area where farmers can vend their own produce for a daily rate (Qu and Yuan 1996). Consumers, believing that farmers are more honest than the middlemen, often prefer to buy directly from the farmers. Yet, the immutable trend of the future is that consumers will have fewer opportunities to buy directly from farmers, as the vendor spaces increasingly become occupied by commercially-oriented entrepreneurs. In 1996, when the then biggest indoor food market opened in Nanjing, the first of eight planned for that year, business people from Shanghai, Suzhou, and Guangdong had ordered counter space (Yong and Long 1996).

Most food markets open at about 6:00 in the morning and remain open until about 6:30 in the evening, or when the final food shoppers have returned home to prepare their meals. The vendors usually procure their produce from wholesale markets the preceding evening in preparation for the following day, or, alternately, very early in
the morning before the market opens. The peak times for shopping are at 7:00 a.m.
before the workday begins, at 11:00 a.m. before lunch, and starting about 4:30 p.m.
when people begin to leave work. Still, except for a slowing period from about 12:30 to
2:00 p.m., when many vendors and consumers are napping, the markets remain active all
day long. Retirees might shop at any time, factory workers have diverse work schedules,
and some state workers take breaks from their jobs to conduct their daily shopping.

Except for the ceiling prices for specific types of produce that is set by the state,
few venues of economic activity come as close to a model of perfect competition as
these food markets. All major food items are offered by multiple vendors within each
market, so consumers have a chance to compare quality and price. Prices are established
through negotiation by each vendor with each consumer. Paying a fair price for food
items requires some skill on the part of the consumer, since the price depends on a wide
range of factors. These factors can include the season of the year, the time of day, the
freshness of the food item, the place of origin of the food item, the weather conditions at
the time of purchase, the market in which it is sold, and the price set by the competition
in the immediate vicinity.

Housing. The physical structure of the dwellings of consumers affects their
shopping habits in important ways, based on the amount of living and storage space
available. To serve as an example of the types of housing found in Nanjing, a brief
description of one of the informant’s apartment follows:

Liu X. and Wang B. live with their 15-year-old son in a fifth floor 40
square meter apartment in a residential area of the city. The apartment consists
of a living room, two bedrooms, a bathroom, and a kitchen. Like most Nanjing
kitchens, the small, four-square-meter kitchen is located next to the balcony, so windows can be opened when cooking to dissipate fumes from the gas stove and cooking smells. The main furnishings of the living room include a couch, a color television, a small square table against a wall, and a refrigerator. At meal times, the table is pulled to the center of the room and stools are placed around it.

The contents of the family’s refrigerator one day included two dozen eggs, a bottle of beer, and a package of yeast (used to prepare steamed or boiled flour dishes such as wontons or dumplings). The freezer was filled with a number of small packages of pork, perhaps fifteen pounds altogether, and a package of noodles. The two storage shelves in the kitchen contained condiments and spices that are necessary for Chinese cooking (corn starch, salt, sugar, soy sauce, vinegar, and oil), but no other packaged/processed foods. Two cabbages were stored on the balcony, and an unopened package of dried plums, a gift, was stored in a cupboard in a bedroom.

While housing in Nanjing varies, the apartment described above is typical for a Nanjing family. Kitchens in Nanjing are small, typically three to five square meters, and generally have, at most, one cupboard, and one or two shelves for storage. Inventories of food stored in households, conducted during the nonparticipant observations, found that families stored scant amounts of food in their homes (see Appendix 4). The small refrigerators are often placed in the living room. Since almost all Nanjing households have refrigerators in 1996, the central location of the refrigerator should not be viewed as a status marker, but as a manifestation of the lack of room for a refrigerator in the small kitchen.

The design of housing in Nanjing affects food purchase in two concrete ways. First, the scanty food storage space in the kitchen physically limits the amount of food that can be stored and leads to food being stashed throughout the home (e.g. bottles of oil in the bathroom, packaged candy in the bedroom, fruit in the living room). Second, the small size of the kitchen means that food consumption activities, including food
preparation and dining, occur in central areas of the house, particularly the living room. While some wealthier families have a dining room or a front hall that is used for dining, most families covert their living room into a dining room at meal times. The lack of physical storage space in Nanjing homes is a major factor necessitating the frequent shopping trips conducted by Nanjing households. Still, new, upscale apartments built for the newly wealthy in Nanjing also feature small kitchens with limited storage. This indicates that habitual behavior dictates physical structure as much as physical structure dictates habitual behavior.

**Data Analysis**

The sheer number of influences of systems of food consumption is daunting. Factors that might be examined include state policy, the distribution system, the agriculture system, trade policy, geographical location, economics, history, social norms, cultural mores, and personal taste—and this list in not exhaustive. Further, none of these factors occur in isolation of the others, and, as such, can be best understand as a part of a system (Fine, Heasman, and Wright 1996). In this spirit, a comprehensive analysis of the topic was conducted, using primary and secondary data from a number of sources. These sources included field notes, a field diary, over 300 photographs, comprehensive summaries of observations (20), verbatim focus group transcripts (3), verbatim retailer interview transcripts (20), over 200 local newspaper articles, household food storage inventories, and television news reports.

The data was interpreted via a cumulative process, in which the documents were systematically and iteratively read to develop a system of meanings (Hill and Stamey
1990; Spiggle 1994; Thompson 1996). The interpretation of the data was aided by the identification of overgeneralizations (e.g. "always," "never," "everyone"), claims of idiosyncracy, and contradictions between actions and speech (Arnould and Wallendorf 1994). While the interpretation of qualitative data has often depended on the identification of "emergent themes" (e.g. Belk, Sherry, and Wallendorf 1988; Hill and Stamey 1990), this analysis was conducted with the major theoretical content identified a priori. While still allowing flexibility in choice of sampling and data collection techniques, this lent a structure to the interpretation of data.

Specifically, the purpose of the study was to examine how the theoretical content introduced in Chapter 2, economic efficiency, cultural ideology, and globalization, contribute to a construction of tastes, and, as such, the analysis of the data was directed toward those questions. As shown in Table 4.4, a three stage, cumulative process was used to guide the interpretation: 1) the major attitudes and preferences of consumers were identified; 2) these findings were further interpreted within the structure of the theoretical content; and 3) the use of time saving food purchase behaviors was analyzed in light of the findings from the first two stages. During each stage, major points were identified, with verbatim (to the extent allowed in translations) quotations provided to lend support to the findings. The next sections details the findings, beginning with a brief description of shopping and cooking habits based on the structured observations.
Table 4.4
Overview of Stages of Data Analysis

<table>
<thead>
<tr>
<th>Stage</th>
<th>Activity</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify major attitudes and preferences</td>
<td>An emphasis on freshness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A focus on nutrition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concerns about food safety</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paying a fair price</td>
</tr>
<tr>
<td>2</td>
<td>Interpret the findings within the theoretical context</td>
<td>Economic efficiency theory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identity and relationship maintenance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cultural ideology</td>
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<tr>
<td></td>
<td></td>
<td>Globalization theory</td>
</tr>
<tr>
<td>3</td>
<td>Examine the implications of the findings in regard to the use of time related food purchase practices</td>
<td>Use of processed food</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use of restaurants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Frequency of shopping trips</td>
</tr>
</tbody>
</table>

FINDINGS

Shopping Patterns

From door to door the time needed for the shopping trips of the informants ranged from 20 minutes to 80 minutes, based on distance from home to market, the quantity of goods bought, and the amount of deliberation by the consumers prior to selection. The strategies for shopping varied by the informant. Some informants walked through the entire market to see all the produce that was available prior to making their first selection. Other informants had a more expedient approach and would begin negotiations as soon as they spied a potential selection.

Informants almost always asked of vendors the price of each product prior to deciding whether or not to buy it. Upon hearing the price, the informants would sometimes accept the price and buy the product if the quote was reasonable. Alternatively, the informant offered a lower price and started the bargaining process, or,
if the price was way out of bounds, simply walked away. Not all vendors, particularly those with more standard goods, such as cabbages, would engage in bargaining. They might simply point to a price on a sign to indicate that the purchase price per unit was fixed and appropriate.

Interestingly, despite the fact that most informants shopped daily in the same market (the one closest to their homes), most informants did not buy regularly from any particular vendor. This contrasts with the close, long term relationships that have been found to develop between merchants and customers in other open-air markets in developing countries (Goldman 1974; Kaynak and Cavusgil 1982; Richardson 1982).

Social activity among consumers was also limited, although shoppers sometimes offered others unsolicited advice (e.g. “Don’t buy those bean sprouts. There’s better ones up there.”) Believing that vendors’ scales are often untrustworthy, many informants carried portable scales with them on shopping trips, so they could verify the weight of produce they bought. With the notable exception of one wealthy informant who used a taxi to get to and from the market, all of the informants were on foot or bicycle. Consequently, the amount of produce they bought each trip was limited by what they could carry.

**Food Preparation Patterns**

From returning home from the market to placing food on the table, the amount of time that informants spent in food preparation varied from one and a quarter hour to two and a half hours. A major activity, using from 15 minutes to an hour, was sorting the greens and other vegetables, separating the good parts from the bad. For example, one
photograph from the observations shows a couple in front of a bowl of bean sprouts, tearing off part of every bean sprout, one by one. The husband explained:

All vegetables have good parts and bad parts—you always must retain some parts and reject some parts. The parts that you retain are nutritious and good for your health. You must reject some parts, because they aren’t good for you. The taste of the bean sprouts would be different if we didn’t remove the bad parts. (Male, 49)

Vegetables were also washed thoroughly, using an average of fifteen minutes, with the rule-of-thumb being to wash vegetables three times each. According to the informants, the extensive washing is necessary to remove pesticides. Reports of poisonings by the pesticides, causing illness or even fatalities, are not uncommon. Oil-based pesticides, commonly used in China but now rarely used in the West, can be difficult to remove. Finally, the food ingredients are chopped into bite-size pieces in preparation for stir frying, entailing 15 to 30 minutes. The time consuming aspect of food preparation for the informants was the sorting, washing, and chopping. The actual cooking usually only took fifteen to twenty minutes, since most dishes required frying the ingredients quickly in oil. The dishes are usually cooked one by one in a common wok and set on the table when they are completed.

When the informants returned from the shopping trips, other family members, usually the spouses, often assisted with the food preparation, such as stringing beans or sorting greens. In the cases of two households the primary food shopper and the person who cooked were two different people. Interestingly, in the households observed with young adult children, the children almost never participated in the food preparation activities, including children in their 20's.
Attitudes and Preferences.

In the decades prior to 1979, the state exercised total control over the food system of China, from the farms, to the systems of distribution, to the retail outlets. Even food purchase choices were dictated by the state to a large extent, since the government controlled the agricultural activity and issued food rations to citizens for most staple products, including oil, rice, meat, and bread. Reports from the past claim that consumers would leave their baskets in front of a food counter the night before to hold their place in line to buy a poor selection of vegetables (Chao 1996). In a remarkably speedy turnaround, Chinese citizens today have bountiful variety in the food markets and, in response, have had to develop attitudes and preferences toward the food selections—that is, they have had to learn to make choices. Of course, like consumers worldwide, Chinese are concerned with price and quality. Other concerns, however, are uniquely suited to their changing environment. These attitudes and preferences are highlighted in the following sections.

Pulled out of the Ground That Day: An Emphasis on Freshness.

I like fresh foods, so I seldom use my refrigerator. It's just for show. I have a lot of spare time, so I like to go shopping every day. After you put food in the refrigerator, it doesn't taste good. In families where parents both work, they are busy, so they buy a lot of food at once and must put some things, like meat, in the refrigerator. But I am not busy, and I can go to the market every day. There is no need to use the refrigerator. The food I buy at the market has been pulled out of the ground that day. But if you put it in the refrigerator for a day or so, it certainly isn't fresh any more. The meat becomes frozen, and the vegetables become soft. (Female, 32)

Traced back thousands of years, the emphasis in Chinese cooking of using the freshest possible ingredients has been called an “obsession” (Chong 1993, p.13). The
observations of food shopping trips reveal that the preoccupation with buying food that is as fresh as humanly possible is not just a claim of fine Chinese restaurants, but an everyday pursuit of typical Nanjing consumers. To the Chinese, food that is truly fresh has been pulled out of the ground or butchered that day. The importance of "freshness" is due to its relationship to the taste, nutrition, and safety of the food.

The pursuit of fresh food is an ongoing activity in Nanjing food markets. Shoppers pick up vegetables, poke them, smell them, and, in general, mobilize as many senses as possible to make rejections and selections:

I can tell the freshness of the meat by smelling it and looking at its color. If it is abnormally red, then I am suspicious. (Female, 53)

Shoppers observed buying fish would reach into the tub and pick up a number of fish with their bare hands to choose the most lively (and presumably most tasty and nutritious) fish. Consumers also manually inspect live chickens and ducks prior to their selection. One shopper accompanied to the market felt the abdomens of twelve different live chickens "to check for insect bites and feel how fat they are" until she found a satisfactory chicken. The vendor, presumably used to enduring choosy shoppers, patiently lifted the squawking chickens one by one for the shopper to palpitate. A 62-year-old focus group respondent explained:

Fish should be alive. A chicken's comb should be red and sturdy. The chicken shouldn't look sickly. You can see from the way it looks whether it's fresh or not.

Vendors have different strategies for emphasizing the freshness of their goods. Some vendors wash the dirt off their vegetables to make them look shining and fresh, a
marketing strategy that would not have been used just ten years ago. While seemingly
an innocent ploy to display vegetables at their best and save consumers time, this
technique seems to backfire with some customers. As a 57-year-old female consumer
explains:

When buying spinach, I choose spinach that hasn’t been cleaned. If it has soil on
it, then I know it has just been pulled from the fields. Clean spinach looks
beautiful, but you don’t know what kind of water has been used to clean the
spinach.

Cynics claim that vendors only practice this technique to add weight to the vegetables
(via water) and thus extract more money from their buyers. Several consumers even
felt that this practice should be outlawed, including the following 42-year-old female
shopper:

Some vendors soak greens in water to make them look better. But these greens
will be difficult to cook until they are tender, and they won’t taste so good. This
kind of thing should be forbidden.

In response to these concerns, vendors try to buy just enough produce from
wholesalers to sell in one day. When interviewed, a pork vendor said that any pork left
at the end of the day had to be refrigerated, and subsequently sold at a lower price. A
vegetable vendor explained, “I must sell all of the vegetables every day, even lower the
price if that’s what it takes to sell them.” Prices tend to be higher in the morning than in
the afternoon as vendors seek to clear their inventories. A Chinese expression is “mai
tou, bu mai wei” (buy the head, not the tail), an allegory for buying the freshest produce
of the morning.
The high standard for freshness explains why the addition of a refrigerator has not made more of an impact on the frequency of shopping trips of Nanjing shoppers.

Intuition would suggest that the addition of refrigerators to households would lead to a decrease in shopping trips. Many informants, however, are unwilling to store vegetables in their refrigerators, because then “they are no longer fresh”:

We don’t put vegetables in the refrigerator because we like them fresh. If they are stored out of the refrigerator they will be more fresh, more tasty, and have better nutrition. If you put them in the refrigerator when you cook them it will change their taste. Putting vegetables in the cold outside is different than putting them in the refrigerator—it doesn’t change the taste. (Female, 51)

A 54-year-old female said as she opened her bare refrigerator:

We only like fresh food. Take a look in our refrigerator—it’s empty. I don’t like to put food in the refrigerator, because it doesn’t taste good any more once it’s been in the refrigerator.

Of the 20 informants, only two, both living on low incomes, had no refrigerators at all in their houses. The refrigerators were usually 10 or 15 cubic centimeters, or smaller than the average refrigerator in a U.S. home. The most common ingredients in the refrigerators were eggs and condiments to be used for cooking. Vegetables were less commonly found, and fruits were almost never refrigerated. The freezer portion of the refrigerator, however, was often full, generally stuffed with seafood and meat cuts (see Appendix 4). Informants explained that meat vendors usually require a minimum purchase, and the minimum is more than can be used in one meal. When one informant returned from her shopping trip with two pounds of pork, she subsequently chopped it into a number of smaller pieces, wrapped the pieces in saran wrap, and placed them in the freezer. Several others informants, when cooking, took a large piece of pork out of
their freezer and carved off about one quarter pound to stir-fry with vegetables. The one informant who owned a microwave oven, defrosted a piece of pork from the freezer in her microwave. A 35-year-old male explains:

Although we prefer to eat fresh pork, we keep a lot of pork in our freezer. First it is a bother to buy only a little bit of pork at a time. Second, we are ready if we have unexpected guests.

The importance of the fact that so many informants have meat stored in their freezer is that it shows that, given enough cause, consumers will bow to convenience, as opposed to traditional preferences. While most food shoppers make frequent trips to the food market, the process of stopping at the meat counter, finding a good piece of meat, and then bargaining for just a small piece is simply too great a nuisance to conduct on a daily basis. While most informants seem to feel that fresh meat is superior to frozen meat, the convenience of having meat stored in the freezer offsets the decrease in quality.

**Eat a Variety of Foods: A Focus on Nutrition**

We’re different from most people, because we think food choice is the most important thing in daily living. Only when you eat healthy foods will you be healthy and have the power to work efficiently and earn a good income. So we are more careful about what we eat. (Male, 45)

Actually, the consumer quoted above is not as different from most people as he thinks, since the majority of informants emphasized the importance nutrition held in their food choices. Following are three representative passages from informants emphasizing their concern for serving nutritious meals:

I like for my daughter to eat food with a lot of variety, so she can get different kinds of vitamins. I’m more concerned about nutrition than other people, because it’s important to me that my daughter try lots of different kinds of food to get lots of different kinds of vitamins. Before we had a child, we often bought
food that is already prepared. But now that we have a child, we buy fresh food, because we want our child to have good nutrition. (Male, 35)

To maintain good nutrition, I alternate the food that my family eats. For example, one day we’ll have chicken, the next fish, and the next pork. Even the food my family doesn’t like, I make them eat for good nutrition. I insist that my family eats healthy food, whether they like it or not. (Female, 55)

Now we buy lots of vegetables. Fresh vegetables. We used to never eat corn or anything like that, but now we eat it a lot for its nutrition. I think with the improvement of our living standards, people now care more about their quality of life and more about nutrition and health. (Female, 45)

The passages above highlight two important points about nutrition: that nutrition is associated with eating wide varieties of food, and that, repeating an earlier theme, nutrition is strongly associated with freshness.

Like the 45-year-old female above, a number of older informants noted that the interest in nutrition has only been possible with the advent of the reforms. During the years of state-controlled markets and rationing, shoppers stood in lines to get whatever was available, which in winter was often only cabbage, potatoes, and turnips. Given the lack of food choices, the question of how to maximize nutritional value was largely moot. With the plentiful quantity and variety of foods available in the 1990's, the informants are avidly educating themselves about what food is healthy.

Retailers are aware of the importance of nutrition in food choices. A pork vendor lamented that his sales had been steadily decreasing because, “as people’s living conditions have improved, they have begun to spend less money on pork because they want more variety and nutrition in their diet.” When asked why bread was a growing category in a region with a diet that traditionally excluded bread, a bakery manager
suggested that she felt it was a way people could conveniently add variety, and therefore
nutrition, to their diets. Televisions commercials seen in Nanjing during 1995 and 1996
for a variety of foods, including soy bean milk, instant hot cereal, and canned congee,
stressed the nutritional value of their products.

The state-run media, including television news shows and newspapers, at the time
of the study were taking a leading role in educating consumers concerning nutrition.
During the Spring of 1996, the Nanjing evening paper, the Yangzi Wan Bao (Yangtze
Evening News) published several articles a week with nutrition tips, with titles such as
“Put Five Colors of Food on One Table,” (Liu 1996) and “Pay More Attention to Food
in Spring” (Chen 1996). Several consumers claimed to be highly influenced by
nutritional information they had read in the newspaper. For example, one informant
reported that she had increased her consumption of tofu based on newspaper reports. A
focus group respondent related that she had read in the paper that it is best to wait three
hours after a fish has been dead before cooking it, since then the fish’s vitamins are easier
to absorb. A 32-year-old focus group respondent recovering from cancer stated that she
relied on information from the newspaper to improve her diet, but at times found the
information contradictory:

After I became ill, I thought maybe I didn’t eat healthy enough food, and I
started trying to eat better food. So I’m often influenced by what I read in the
newspaper. Sometimes I get confused. Once I read that tofu shouldn’t be eaten
with spinach. Then they said you could. I usually just believe the latest news.

The young cancer victim represents the confusion and contradiction that
sometimes accompanies the topic of nutrition. In the course of shopping and cooking,
informants often related how their ingredients or practices were related to nutrition. Among the beliefs expressed were that asparagus prevents cancer, ma lan tou (a wild vegetable) can calm down a person and brighten the eyes, bright light stimulates the appetite, and food processors remove the vitamins from foods. The accuracy of some of the claims is difficult to verify and not really relevant to this study. What is important is that consumers have a keen, almost faddish, interest in nutrition and will alter their food choices as they learn of new information related to nutrition.

**Be Careful What You Buy: A Concern for Food Safety**

Now, when we eat something, we have to pay attention to whether it is safe or not. Because farmers want to earn more money. So when you buy fresh foods, you have to wash them several times. I heard about somebody who ate polluted cabbage and died. So it is a very serious problem. (Male, 26)

Almost all informants expressed a fear of eating and serving food that is not safe. The safety concerns seem to encompass four major categories: poisonous pesticides on vegetables, dangerous levels of preservatives in processed foods, spoiled products, and unsanitary handling practices. Informants claimed that fear of unsafe products prevented them from buying a number of products that seemed to vary according to individual, including tofu, bread, and canned food. One 62-year-old respondent reported that she did not dare buy bean sprouts any more for fear they contained poisonous chemicals. A 35-year-old male shopper explained his fear of buying prepared foods from vendors:

I don't buy carry out food from outdoor vendors, because they are dirty. I certainly won't buy youmtiao (fried donuts) from vendors. Some vendors mix cleaning powder in the dough, because it makes the youmtiao fluff out more. But that stuff is poisonous. So I almost never buy food from private vendors.
Another 30-year-old male shopper claimed that when he shops for food he searches for vegetables with worms on them. He prefers buying worm-infested vegetables, because then he can be sure they were not grown with excess pesticides.

While these consumers may sound slightly obsessed, and many of their fears are fueled by unfounded rumors and urban myths, there are many legitimate sightings and media reports to lend legitimacy to this anxiety. For example, when a pork vendor was asked what measures he took to ensure the safety of his product, he said (proudly) that he washes his counter two or three times a week. Two or three times a week does not seem adequate to ensure the sanitation of a counter that stands in the sun covered with raw, bloody chunks of meat from sunrise to sunset. A media report claimed that there are 40,000 food poisoning cases reported throughout China each year (Zhu 1996).

One retailer who was interviewed, a former factory worker who had recently quit his secure state job to open a poultry stand, has seized on the safety concerns as a point of difference with which to market his store. He claims that the relatively upscale customers in his region are willing to pay extra for sanitary foods:

> When I decided to open this business I determined that the hygiene of my food and the sanitation of my shop would be the most important characteristic of my business. You know that processed food is eaten as is, without further cooking, so the customer must pay more attention to whether the food they buy is clean and healthy or not. If I cannot keep my store clean, I will fail against my competition.

Indeed, his store looked unusually clean. When a customer purchased a duck from him, he put plastic gloves on his hand while handling the duck, then removed the gloves for the cash transaction—not the usual procedure seen at duck stands in Nanjing. This
entrepreneur claimed that he had gained a regular customer base because of his sanitary practices.

The government tries to control unhygienic practices through random, surprise inspections of restaurants, stores, and factories. The infractions are then reported in the state-controlled media, sometimes in frighteningly colorful detail. For example, one 1996 newspaper article reported that some bakeries were found engaged in a number of illegal practices, including reusing icing from cakes that had reached the limit on their expiration date, making the cakes on filthy counters, and working in rooms with spider webs on the walls (Li and Xiao 1996). Another article reported that a routine inspection of cooked meat products found that 60% of packaged cooked meat, 80% of unpacked cooked meat products in stores, and 87% of unpacked cooked meat products on street stands did not meet the government's standards for hygiene. "The majority of unqualified products were contaminated by bacteria," the article explained (Zhu, 1996, 2). In the first half of 1996, The Yangzi Wan Bao, averaged two or three articles a week reporting on retailers or manufacturers that had been found to be engaged in unsanitary practices in the Nanjing area.

These media reports affected the purchase choices of several informants. A 24-year-old female informant avoided pork for a time because of a report she read:

Several months ago, I read in the newspaper that the meat in Nanjing markets is not clean, because they are very careless about inspections. It's not enough to check the pork. You can't tell. So I didn't dare to buy meat for a long time after that. I buy fish, because they're alive.
Again this relates back to the theme of freshness, since the more fresh vegetables are the less likely they are to be contaminated. On the other hand, a 32-year-old female focus group respondent stated:

Many believe that freshness is equal to nutrition. I don’t necessarily agree. Fresh food might be loaded with pesticides.

The confusion and contradiction shown in the quest for safe foods parallels that seen in the pursuit of nutritious food. While there is some disagreement as to the best methods to ensure safety, there is a universal concern for the sanitation of foods.

**Bargaining Well: Paying a Fair Price**

I never shop in a supermarket, because the food there is much more expensive. I work hard to manage our money well. Our income is low, but if I plan well, we can live quite comfortably. (Female, 42)

The cessation of food rationing and the proliferation of food choices, both events occurring largely in the last decade, have resulted in Chinese families having to learn how to manage a food budget. Interestingly, the main goal, according to many informants, is simply paying an appropriate price for the quality received, not finding inexpensive food or unusual bargains. Informants felt that a wide range of quality existed among the products, and that consumers had to be careful not to be overcharged for less quality food. A 24-year-old female shopper explained how she made her food choices as follows:

When I want to buy something, I like to look at the choice of several sellers before I decide. I don’t want the cheapest, or the most expensive—I want the one in the middle.
Her point was that she did not want to buy the least expensive food, since that was bound to be lower quality, i.e. less fresh or a less tasty kind. Instead, she wanted food that was medium price and quality.

Prior to the semi-privatization of food markets (state management of private vendors) beginning in 1979, many products were rationed and prices of food items were established by the state. In the 1990's, while the state sets a maximum price for most food items, the minimum price is as low as a vendor is willing to go. This flexibility seems to cause many consumers anxiety, because they fear they will be charged an unfair price. The food shoppers almost universally remarked on their distrust of the men and women who manage the booths from which they buy their fruits, vegetables, meats, and other staples. A 45-year-old male shopper sums up this attitude:

I don't trust vendors. Sometimes their food isn't sanitary and they try to cheat you. The government-run stores used to be more trustworthy.

A 52-year-old shopper cynically explained her choice of a particular vendor this way:

I like to buy pork from this man, because, compared to other vendors, he's fair. Of course, he also cheats, but he cheats a little less than the others.

A few shoppers indicated that they had established relationships with particular vendors, and accrued benefits from those relationships. A 55-year-old female shopper, who lives on an alley that serves as a food market and can walk directly from her door and buy the ingredients for her next meal, said:

I have a good relationships with several vendors, which allows me a slightly better price.

Much more common, however, are comments like that of a 40-year-old female:
I don’t know any of the vendors. I buy food wherever it is convenient and where good food is offered. I think vendors cheat buyers through over-charging, setting irrationally high prices.

As well as being concerned that they are charged a fair price for products, consumers worry that vendors will deliberately cheat them by falsely setting their handheld scales to inflate the weight of their produce. To defend themselves against these dishonest scales, many consumers bring their own scales with them to the market, and will reweigh their products themselves to verify the true weight, particularly with more costly items. As a 65-year-old woman explains:

It is very important to weigh expensive food, such as shrimp and other seafood. When you buy a chicken, you should weigh it yourself before the vendor kills it for you.

A 57-year-old female shopper said:

It’s enough to bring out your scale to show the vendor you have one.

Some food markets have a public scale that is prominently displayed in the middle of the market to allow consumers to check the weight of their produce before they pay the vendor. One market manager said that he routinely performs surprise checks of vendors’ scales. When a vendor’s scale is found to be faulty, the scale will be destroyed. If a vendor is found to persistently possess faulty scales, the individual will be expelled from the market.

The phenomenon that food shoppers routinely arm themselves with their own scales to go to the market and unapologetically reweigh their meat and vegetables demonstrates the brazen, openly-expressed distrust of the men and women who sell produce. It represents a deep-seated attitude that, by nature, vendors are dishonest, and
that is simply a fact of living with which all smart shoppers must cope. A 54-year-old female matter-of-factly explains:

Of course, vendors try to make as big a profit as they can off of us. They have to make a living, don’t they? But you can protect yourself. To keep from being cheated by their scales, you can bring your own scale with you. If the price is unfair, you can bargain and compare the prices of other vendors. And we have the freedom to decide what to buy and what not to buy.

To be fair, it should also be pointed out that most consumers agree with a 46-year-old woman’s statement that, “Some vendors aren’t too bad.”

In the course of the food shopping observations, it was interesting to note that while there were differences in food shopping habits according to income level, those deviations were not in rigor of negotiation or price consciousness. The shoppers of the wealthiest family were as apt to bargain to the final fen as the shoppers for the poorer homes. Bargaining is seen as one of the important tasks of food shopping, and not one that can be neglected. Rather than through bargaining style, the income differences became apparent in food choice. The two lowest income shoppers who were observed cooked meatless meals, opting for the lower priced tofu for their protein. A high income shopper selected prawns for her meal, a delicacy at 50 yuan a jin (U.S. $6.25 for 1.5 kg) that most of the shoppers observed would not dream of purchasing.

Summary

The four strong attitudes and preferences guiding the food purchase behavior of Nanjing shoppers are summarized in Table 4.5. As the table shows, the findings were corroborated with evidence from multiple sources. The importance of these findings will be discussed in the next sections.
## Table 4.5
### Corroborative Evidence of Findings

<table>
<thead>
<tr>
<th>Themes</th>
<th>Data Source</th>
<th>Sample evidence</th>
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<tbody>
<tr>
<td>1) An emphasis on freshness</td>
<td>Field observations</td>
<td>Shoppers searched carefully at markets to buy the freshest meats and vegetables</td>
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<tr>
<td></td>
<td>Informant comments</td>
<td>“I bought this bamboo yesterday, so it’s not very good—not so fresh. It’s better to eat vegetables the day you buy them.” (Female, age 54)</td>
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<tr>
<td></td>
<td>Focus group comments</td>
<td>“I like to buy vegetables directly from farmers. These vegetables are fresher.” (Male, age 44)</td>
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<td></td>
<td>Retailer interviews</td>
<td>“The pork we don’t sell that day we must store in a refrigerator. Then we have to reduce it’s selling price.” (Pork vendor at food market)</td>
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<tr>
<td></td>
<td>Local newspaper article</td>
<td>A newspaper article reported that while frozen mutton is readily available, fresh mutton was in short supply because Nanjing residents prefer the fresh meat (Zhi and Shou 1996).</td>
</tr>
<tr>
<td>2) A focus on nutrition</td>
<td>Field observations</td>
<td>Shoppers frequently frame their food choices in terms of nutritional benefits. In particular, shoppers often bought a variety of foods to be sure their family was getting sufficient vitamins.</td>
</tr>
<tr>
<td></td>
<td>Informant comments</td>
<td>“We now have a food processor, but I like to chop the vegetables myself so they retain their vitamins.” (Female, age 53)</td>
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<td></td>
<td>Focus group comments</td>
<td>“You should alternate the kinds of meat you use. For instance, if you served chicken today, it’s better to serve fish the next day.” (Female, age 32)</td>
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<tr>
<th>Themes</th>
<th>Data Source</th>
<th>Sample evidence</th>
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<tr>
<td>2) A focus on nutrition (cont.)</td>
<td>Retailer interviews</td>
<td>&quot;More and more people can afford expensive food, and they want to keep their bodies healthy by eating a variety of foods. Also, they care about their children's health. (Bakery manager)&quot;</td>
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<tr>
<td></td>
<td>Local newspaper</td>
<td>The newspaper publishes several articles about nutrition a week.</td>
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<tr>
<td>3) Concerns about food safety</td>
<td>Field observation</td>
<td>Prior to cooking, informants washed all their vegetables thoroughly, usually three times each, to be sure that all pesticides were removed.</td>
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<td></td>
<td>Informant comments</td>
<td>&quot;I like to eat in outside restaurants because the food is good. But I don't eat there very often because they aren't clean.&quot; (Female, 29)</td>
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<tr>
<td></td>
<td>Focus group comments</td>
<td>&quot;We never buy canned food because they add too many preservatives.&quot; (Female, 31)</td>
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<td></td>
<td>Retailer interviews</td>
<td>&quot;When I decided to open this business, I determined that the hygiene of my food and the sanitation of my shop would be the most important characteristic of my business. You know that processed food is eaten as is, without further cooking, so the customer must pay more attention to whether the food they buy is clean and healthy or not. If I cannot keep my store clean, I will fail against the competition.&quot; (Baked poultry shop owner)</td>
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<tr>
<td></td>
<td>Local newspaper</td>
<td>A newspaper article stated that the provincial government was stepping up safety measures to insure that meat is safe (Wang and Zhi 1996)</td>
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<tr>
<td>4) Paying a fair price</td>
<td>Field observations</td>
<td>All informants routinely negotiated with the vendors until they were satisfied with the prices</td>
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<th>Themes</th>
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<td>4) Paying a fair price (cont.)</td>
<td>Informant comments</td>
<td>&quot;I rarely get cheated by vendors because I'm very familiar with the price and food. I read the newspaper every day, so I know the right price.&quot; (Female, age 54)</td>
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<td></td>
<td>Focus group comments</td>
<td>&quot;To get good things at the right price, you still need to look in many stores.&quot; (Female, age 42)</td>
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<td></td>
<td>Retailer interviews</td>
<td>&quot;...if your prices are a little too high--just a little too high--you're dead.&quot; (American manager of failed Nanjing restaurant)</td>
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<tr>
<td></td>
<td>Other evidence</td>
<td>Maximum legal prices for staple food items are posted regularly in newspapers and at the entrance of food markets.</td>
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Theoretical Context

Returning to the theoretical content of the larger study, the collective analyses of the observations, interviews, focus groups, and other data support the relevance of the theories chosen prior to the fieldwork. The sections below discuss how the attitudes and preferences of the informants gain meaning when interpreted within each of the major theories.

Using Money to Save Time—Economic Efficiency Theory

Just now I added up my working time per day and there are at least ten hours a day that I'm outside of my house. Generally speaking, we would like to be able to use money to save time, but we can’t afford to. (Female, 42)

While several emotions are expressed in this short passage, one issue stands out: confronted with a burgeoning marketing economy, many Chinese people are genuinely short of time. The busy people who have enough money and an accommodating philosophy are able to use their money to buy extra time. Others, represented by the business woman quoted above, feel they lack both capital and time. Many of the informants discussed the tradeoffs that they faced in terms of time and money. That is, the informants equated time with value and saw time “as capable of being bought and spent as well as being saved and wasted” (Leclerc, Schmitt, and Dube 1995, p. 110).

According to the theories of economic efficiency, summarized in Chapter 2, as income increases and lives become busier, production shifts from the household to outside sources. Since many Nanjing residents are becoming richer and busier, much of the food production that previously occurred at the household level would be expected to be moving outside of the house. In fact, as throughout China (see Chapter 3),
Nanjing food retailers are offering more and more services that save consumers time. Compared to ten years ago, Nanjing shoppers have many more time related food options, including prepared and semi-prepared foods, restaurants of all kinds, and carry out and delivery services. Restaurants now sell snacks outside for people to buy and take home (Qu 1996), vendors sell cleaned and prepared vegetables for from 0.1 yuan to 1.5 yuan more a jin (Zhang 1996), and markets sell salted vegetables for people who are too busy to salt their own (Zhou, Y. 1996). The availability of packaged foods, both imported and produced in China, is expected to continue to grow in Nanjing (Zhou 1996).

As predicted in the economic theories, there is evidence from the field study that the busier and/or wealthier consumers are taking advantage of the new, more expensive time related options. A busy factory inspector reported that she stored prepared food in her freezer, in readiness for the days that she needs them. An engineer said that she was willing to pay extra money for prepared and cut vegetables. A professor said that her family went out to eat about once a week and frequently bought carry out snacks to save time.

The reverse is that the informants who lacked money and had ample time seemed to gladly spent it on food preparation activities. A 45-year-old female factory worker seemed to feel sorry for those who did not have enough time to shop properly:

I spend a lot of time buying food, so I am quite experienced. Busy people might not be able to do that. They are always in a hurry, buying things which look good at first sight. Those of us who have a lot of time believe, "Look in three stores to buy one product."
A 42-year-old female who also felt she had plenty of time indicated that she was not willing to spend one yuan (the equivalent of U.S. $0.12) extra to save time by buying prepared vegetables:

Processed soybeans cost one yuan more a jin, but I can process them in less than twenty minutes. So I’m not willing to pay to have them processed.

Not surprising, however, the relationship between economic resources and outsourcing household tasks is not always perfect. Another category of busy and higher income respondents say that they are not willing to spend money for someone else to do something they are capable of doing themselves. This category includes many of the older respondents, a group who has lived for decades on a low income with few material goods and little consumption choice. Similar to many Americans who lived through the Great Depression, this cohort has an enhanced sense of the value of capital. These consumers, while economically capable of adopting new food options, have become accustomed to a lifestyle that excludes restaurants and processed food. As such, they are unlikely to change at this point in their lives. An informant explains this philosophy:

People are richer and have more choices. Now many people like to buy processed food, just like foreigners, for the sake of convenience. We old people still retain the old habits and prefer to do everything ourselves, and we don’t trust the sanitation of them. In all, life is more convenient now. At least, you can find whatever you need now. Not like in the past, when many thing were not available. (Female, 57)

The informant’s stating that “we don’t trust the sanitation” shows the relationship between adopting time-saving practices and the attitudes and preferences introduced in earlier sections. Using time-saving food options, including restaurants and processed foods, often means relinquishing some or all control of the production of the final
product. The consumer has less control over the sanitation and the freshness of the food. Nutrition may or may not be compromised depended on the individual act. If the time-saving product is viewed as being less fresh nutrition will be perceived as being decreased; on the other hand, if the product adds variety, nutrition might be enhanced. The final attitude “paying a fair price” also depends on the individual and the time-saving practice. One 62-year-old female who said, “...money doesn’t come that easily I would rather do it myself,” did not consider paying any extra money for something she can do herself “a fair price.” Others, such as the three examples given above, consider the extra cost “a fair price” for saving time. In other words, based on the evidence from the field study, a relationship exists between economic resources and time-related food purchase choice, but other factors are also important. These will be highlighted in the next sections.

**Taking Care of Your Family: Maintaining Identity and Relationships**

My family is far from rich. I spend almost all my time doing housework. We don’t earn much, but we serve ourselves quite good meals. Most of our neighbors are college graduates or even have advanced degrees. But we have better meals and a cleaner house, because I have enough time to do things well. (Female, 40)

A number of studies have revealed the centrality of consumption activities and items to peoples’ expressions of themselves and their evaluations of others (e.g., Appadurai 1986; Featherstone 1991; Firat 1995). During times of dramatic societal change, such as that facing urban China at present, consumption activities become a particularly important tool for developing and reaffirming relationships and identities (Ger and Belk 1996). With the central position that food occupies in the patterns and
rituals of family life, activities associated with food consumption would be expected to be uniquely important in maintaining identities and relationships. Indeed, through their activities and narratives the informants often revealed the close relationship between their food consumption choices and the way they defined themselves and their ties with others.

The factory worker quoted above, for example, is proud that she serves good meals in a clean house. Other respondents express pride in being superior, or at least different, from other consumers in some aspect of food consumption. One 30-year-old female is proud of being known as someone who drives a hard bargain:

I enjoy bargaining with those devious sellers. I actually find bargaining to be entertaining. For example, if greens are sold for 50 fen (about U.S. $0.06) a pound, and I cut it down to, say, 30 or 35 fen a pound, I get a big kick out of it. So my colleagues consider me the person who can always get the cheapest price on things. If something is cheap, I’ll buy it... You can’t bargain in department stores, but I bargain whenever I can. I like to bargain when I go to the food market. I only bargain when I plan to buy something. I won’t bargain for something I’m not going to buy. I try to buy the largest amount of objects for the least amount of money. (Female, about 30).

A 45-year-old male factory worker, who skilfully demonstrated a method for cooking tofu, was not only proud of his technique, but of the money he saved by learning the technique:

I really enjoy cooking. I work to try to make food attractive and delicious. I enjoy trying new ways to cook things. If you buy tofu like this, it’s quite expensive. But I’ve learned how to do it myself, and I’ve saved a lot of money.

While many informants openly admitted that they do not like food shopping and/or cooking, and quite a few expressed the thought that they spend too much time at the tasks, almost all felt that what they did was important and necessary. The informants
tended to frame their food purchase choices in terms of taking care of and pleasing their families. The emphasis on serving fresh foods, noted in an earlier section, and, even more importantly, the enduring mind set that defines food as "fresh" only when it has been bought that day and not refrigerated, might be viewed as part of a larger set of values that emphasizes the centrality of the family unit and the responsibility of the family members to look after their own. Food shoppers frequently explained their choices in terms of the benefits the food items will bring their family members, including spouses, parents, and, most frequently, children. The duty to please and nourish their family members, through providing safe, nutritious, and safe food seems to largely dictate their need for frequent shopping trips. Furthermore, while Western researchers have emphasized the close association between motherhood and cooking (Dichter 1960; Strasser 1982), the relationship between nurturing family members and food was as likely to be expressed by the male informants as the female informants. Here is just a sample of those comments:

First we meet the needs of our grandchild, and then our daughter and son-in-law. We don't care about what we eat. (Couple, 60's)

Each time I buy food, my first consideration is my son. I seldom think of myself. I like what my husband and my son like. (Female, 32)

I live with my father who is quite old. So I consider his needs first when buying food. He is very critical. (Male, 42)

Our grandchild likes her meals to be varied, so I try to change the food to satisfy her. (Female, 67)

I like to go shopping every day, to ensure that my children are healthy. (Female, 54)
I serve what my child wants. Almost every meal, I ask her what she’d like. (Female, 30)

My daughter is studying in a university, and she comes home on weekends... Then I do my best to cook a lot of her favorite dishes. She is very pleased to eat these good meals. (Female, 45)

The importance of making food purchase choices in view of the needs of children is represented poignantly by a 57-year-old female retiree, who, upon being left with an empty nest, expressed bafflement at making food choices:

I am often puzzled when I have to decide what to eat every day. At our age, we have neither old parents or young children living with us. Since before we always cared about them more than we cared about ourselves, it is only in recent years that we’ve been able to think of ourselves. One should not save money from one’s mouth. I think it’s true that you look after your children by looking after yourselves. So, I pay a lot of attention to nutrition. I will not buy fashionable food. (Female, 57)

Note that the woman has resolved her dilemma by continuing to frame her food choices in terms of taking care of her children, even in their absence.

As the statements above indicate, the needs of the children of the household are given first priority, which includes satisfying their preferences and giving them the highest quality food. This is a distinct departure from Western studies, in which researchers claim that power relations produce a hierarchy of food distribution in families that places men first, women second, and children third (Charles and Kerr 1991; DeVault 1991; Schafer and Bohen 1977). Pleasing and nurturing the child of the family was paramount to the self-definition reinforced through purchase activities.

Like economic efficiency theory, the need for defining and maintaining the self and relationships are important components of food purchase choice. But, even
together, these theories are still inadequate for explaining contemporary patterns of food consumption in urban China. Understanding the cultural ideology operating in Nanjing, is necessary to understanding the persistence of shopping patterns.

**I Have to Do It: Cultural Ideology**

My mother was only a housewife. She didn’t work. So she spent a lot of time cooking. I’m different. I work. I don’t have time to learn how to cook and spend a lot of time doing it. I feel like I spend too much time cooking but I don’t have any choice. I have to do it, or we won’t eat. (Female, 42)

The chemist quoted above highlights the attitude that many informants expressed toward food shopping and cooking, “I don’t have any choice. I have to do it.” To a foreign observer, the rationale that the informants “have to do it” is not readily apparent. Certainly, someone in a family has to shop and cook. But why shop every day? Why not buy three or four days worth of produce and stuff it in the refrigerator? Why spend so much time preparing the vegetables? Why serve four or five dishes and a soup? Why not cut down meals by at least one dish? And why not serve more leftovers?

Much of the answer can be found in the informant’s reference to her mother. The past dominates the present. In general, household consumption patterns in one generation correlate well with the patterns of the next (Hothakker and Taylor 1970; Lebergott 1996). For Chinese food shoppers, the past consists of a stock of interrelated habits that includes frequent shopping, hyper-fresh food, nutrition equated with fresh food and variety, and a bias against leftovers. Furthermore, as indicated in the previous section, the definition and maintenance of identities and relationship is closely related to
the conservation of this stock of behaviors. Most of all, the traditional patterns of behavior are maintained via inertia. As a focus group respondent explained:

I don’t think there have been great changes in our food consumption habits. We still need to spend a lot of time buying food and cooking. Since habits are hard to change, we still conform to the traditional methods of food consumption. (Female, 40)

Still, despite subtle resistance, tastes are changing in Nanjing. The profusion of new restaurants, supermarkets, and packaged foods bear testimony to a consumer market that is actively accepting these new products and services. At the same time, the pace and depth of the change is inexorably linked to an ideology of food consumption that defines a fresh fish as one that is still swimming. This cultural ideology merges with media messages, advertising, economic realities, and logistical constraints to determine the food consumption patterns of consumers.

Closely linked to the overall theme of “having to do it” is the feeling of many informants that they need to be completely in charge of the food preparation from beginning to end. Having to be in control was expressed in a number of ways: preferring unwashed vegetables due to distrust of the vendor’s water, being leery of restaurants because of not being sure how the food was treated, and preferring to buy vegetables that were not peeled or cut to be sure they were prepared correctly. One informant said that she once paid a higher price to purchase rice that was already washed, but ended up washing it any way because she did not trust the product. The need to be in control derives from a combination of wanting to be sure that the food preparation is done correctly and, from the previously mentioned important concern for sanitation.
A manifestation of the prevailing cultural ideology is the pronouncement by many informants, such as the chemist quoted above, that they spend too much time in food preparation activities. The three following quotations represent this attitude:

I love to go shopping for clothes, but I do not enjoy shopping for food. It's just a burden. It's a hassle to have to examine food to find the food that is inexpensive and yet good quality. Bargaining and choosing takes a lot of time—too much time. (Female, 41)

Coking food doesn't take a long time, but preparing the food so it is ready to be cooked does. I feel like I spend too much time preparing food. (Male, 35)

We spend too much time preparing meals. But what else can we do? We must go to the market, clean the food, chop it, cook it. (Female, 29)

While new options are available that can save consumers time, the consumers have to be open to change to adopt these time-saving options. For major changes to occur, the household food providers, such as those quoted above, are going to have to initiate different habits from their parents. These changes are expected to occur, but the prevailing cultural ideology will ensure that the changes occur slowly.

**Oppressive vs. Superior: Globalization versus Localization**

I don't like buying food. It's takes too much time. There are some disadvantages of Chinese food. Personally, I prefer to eat rice rather than bread in the Chinese tradition. And Chinese food has a rich tradition...The most fundamental problem is that Chinese cooking simply takes too much time. I heard someone calling for us to learn about cooking methods from other countries to learn to save time. I agree with him completely. (Male, 40)

As discussed earlier, the new time-saving options available to Chinese consumers are a direct response to the opening of the nation’s economy to the outside world. As such, the reaction of individuals to global products, services, and ideas is important in
understanding the use of new choices. The central question, then, is how open the nation is to foreign influences.

As the above passage reveals, the time-consuming Chinese tradition of shopping for and cooking with the freshest ingredients might be alternately viewed as superior or oppressive. The informant recommends that the Chinese learn about the time-saving cooking methods of other nations. It is important to realize that this comment would have been radical just two decades ago, before China opened to the rest of the world. Today, like him, some Chinese people are now interested in learning the cooking styles of other countries. However, what are the repercussions of this new open attitude to the "rich tradition" of Chinese food? Will the heritage of Chinese cooking be diluted by innovations from outside of China?

Globalization theory, introduced in Chapter 2, suggests several reactions to the introduction of global products and ideas to a nation. One extreme reaction is abstaining from outside influences completely; the other extreme is embracing the new ideas so fully that the nation's culture is endangered. Findings from the study indicate a reaction that is in between these two extremes. Global products and services are being slowly adopted, but in a limited fashion that does not impair the traditional characteristics of food consumption patterns.

The success of KFC and McDonald's in Nanjing demonstrates that many consumers enjoy being exposed to other nation's cultures. A KFC manager explained why his store was so busy:
Some people say that KFC represents American culture. People like to come here and have a taste of American culture.

A McDonald's manager said:

The people don't come here to buy the food. They come here to buy the experience. They get to sit in a bright, shiny, clean environment. Everything looks different. It's like going to Disneyland.

The KFC manager of another branch explained:

KFC has brought not only a new flavor of food from the U.S., but a new idea as well. That is that you come to a restaurant not food for food, but also for the environment and service. Although the price of food at KFC is a little higher than at other Chinese snack food shops, most consumers still prefer to have meals at KFC, because it is clean and healthy.

While many informants welcome the food-related imports from other countries, they expressed skepticism that they might have a major effect on long-held traditions of food consumption:

We shouldn't change our traditional food. That's part of our nation's character. And it would be impossible to change it quickly. It's adapted to the our environment and culture. (Male, 44)

Other informants felt that foreign foods might be acceptable occasionally for a change of pace, but will never substitute for traditional dishes. While informants universally admit that their traditions of shopping or cooking are time-consuming, they also universally feel that the food in China is simply better tasting than that of other countries:

Some friends of mine who are in the U.S. complain a lot about American food. They can't get used to it. But I've never heard American people complaining about Chinese food. (Female, 42)
To return to the question of whether the cultural ideology of food preparation in China is oppressive or superior, the answer appears to be "both." Despite the oppressive, time-consuming nature of Chinese food preparation, the end product is clearly seen as superior, and it is hard for most people to imagine any other way. Consequently, while many Nanjing residents are accepting global products into their culture on a limited basis, they will not be substitutes for local food traditions for a long time.

**Time Reduction Food Purchase Behavior**

This final step of this analysis involves examining the use of time reduction food purchase behavior in view of the previous interpretation. These time related food purchase behaviors— use of processed foods, use of restaurants, and frequency of food trips—represent options that are only recently available to the informants. Analyzed via the theoretical framework of this study, a number of forces exist that are affecting these behaviors, some supporting and some discouraging their use. In addition, the attitudes expressed by the informants regarding these behaviors indicate a structure of beliefs that is not only heterogeneous among the informants, but not even necessarily consistent within the individual. In short, confronted with new options that are incompatible with the social and cultural norms developed over decades, consumers are differentially resistant to change.

**Saving Time: Using Processed Foods**

When I'm too busy to buy and cook food, I buy processed food, like cooked duck or chicken. Sometimes I also have to buy cooked vegetables from a nearby...
restaurant. Then I only need to make a simple soup with dried shrimp, which together with the cooked meat and vegetables can serve as a meal. (Female, 53)

Like the engineer quoted above, many busy consumers are enthusiastically welcoming the convenience derived from the new options in processed foods, including packaged, frozen, and prepared foods. This attitude is also represented by the busy 40-year-old factory inspector who said that she is willing to pay the extra money for convenience food to save time:

I often buy packaged food, because it's very convenient. I can tolerate the prices. It's really good to put these frozen convenience foods in the refrigerator and use them any time you need them. I buy frozen yuan xiao (glutinous rice dumplings) all the time.

Other informants are reluctant to pay money for something that they can do themselves:

I almost never buy processed food because I have a lot of time to do things myself. Processed food is expensive and not as fresh as food brought directly from the vendors. (Female, 67)

Some informants stated that while they rarely buy processed food, they have certain favorite products, such as instant noodles or bread, that they buy occasionally. Others claim to never buy processed food, but when queried about specific popular products, such as baked duck or youtiao (fried donuts) will admit to making an exception for those particular products.

Clearly, some types of processed foods, including packaged, canned, and frozen food, do not meet the criteria of freshness that many Chinese consider paramount. While, based on those criteria, some informants avoid packaged food altogether, other
informants, such as the professor quoted previously, will incorporate processed food judiciously into a menu that mainly consists of fresh food. Other categories of processed food, on the other hand, such as cooked dishes and washed and cut vegetables, remain fresh. Buying these dishes can even allow busy people to uphold their high standards for freshness while saving time. A 53-year-old female reported that she is willing to pay extra to buy wild vegetables that are already cleaned and cut, because she does not have the time otherwise to serve this type of vegetable:

I don’t trust canned food. The things I often buy processed are fresh vegetables, such as pea leaves and ma lan tou (a type of wild vegetable). I didn’t eat them before because they are so hard to process, very troublesome. Now, with my recognition of their nutritional value, and more important, now that you can buy the service of having them prepared, I rely on them greatly. I want to enlarge the variety of my family’s food, as well as save time.

While processed foods have made only moderate inroads into the family meals of most informants, the use of packaged foods is consistent with a new lifestyle that includes the pursuit of leisure activities and travel. Informants report that when they visit a park or other leisure sites for the day, they buy packaged cakes and bread for lunch. There are few sight-seeing spots in China where tourists are farther than a ten minute walk away from the nearest snack. These activities serve the importance of introducing consumers to packaged food, when they have no other options. After eating these items (out of necessity) and experiencing no ill effects, consumers may feel safer incorporating packaged food products into other parts of their lives, including family meals.

Children are also important patrons of processed foods. Almost every school has a xiao mai bu (kiosk) strategically located at its gates. As children are dismissed from
school, they can be seen buying packaged treats, such as salty snacks and ice cream bars, with their own allowances. Recognizing the enormous potential of this market segment, packaged food companies sometimes deliver boxes of free samples of their products to schools to be distributed to the children. The author’s first grade daughter regularly arrived home from her Chinese school with treats, such as a small box of candy or a bag of corn chips, in her back pack. One focus group participant commented:

Advertisers know that it’s easy to get money from parents in a one-child-family. Only children want everything that they see other children with. (Female, 34)

Parents and grandparents also can be seen at public places and events buying processed snacks for their children. A focus group participant commented:

When you go out, your child asks you to get him snacks and that costs a lot of money and makes your budget tighter. (Female, 30)

When it comes to indulging their only children, the worries about nutrition and sanitation often seem to be suspended, demonstrating the contradiction in belief structure. This ambivalence is represented by the following comment from an informant with a 5-year-old son:

I don’t use supermarkets very much because they are expensive. I use them to buy processed food for my child. I buy potato chips, chocolate, candy, jellies, and salted snack. I don’t like my child to eat too much of that stuff, though, because it will make him lose his appetite and then he won’t eat normal foods. (Female, 29).

The speaker begins by saying she does not typically use supermarkets. Then she lists all of the things she has bought for her son at the supermarket. Then, as if she realizes that after listing all those items it might sound as if she gives her son these treats too frequently, she quickly adds that she does not like him to eat these things too much.
Altogether, between the attention of advertisers and the indulgence of relatives, this young cohort is being socialized into the use of processed foods and, as adults, are likely to be more accepting of their use than their parents.

A physical constraint in the use of processed food is the lack of storage space in Chinese apartments. The limited storage areas in a Chinese home makes storing large amounts of packaged food impractical. Finally, and perhaps most importantly, the basic economics realities of paying for processed food is an important factor. While incomes are increasing, the average Nanjing adults still only receives an official salary of 500 yuan (about U.S. $65) a month (Nanjing Statistical Yearbook 1995) and spends half their incomes on food. For the equivalent of one U.S. dollar, a Nanjing resident can buy about 16 pounds of spinach, 12 pounds of tomatoes, one pound of pork, or one package of cookies. Faced with these choices, most consumers are judicious in their incorporation of processed foods into their diets.

In summary, while, overall use of processed foods in Nanjing is increasing, there are a number of factors both inhibiting and encouraging their use. The new lifestyles, which include leisure pursuits and busier lives, are compatible with their use. Still, the cultural ideology ensures that these products will be adopted slowly. The specific factors affecting the growth of this category of foods are highlighted in Figure 4.1.

**Saving Preparation and Cooking Time: Eating in Restaurants**

We like to eat out and have food cooked by professionals. This semester we go shopping almost every weekend, and then we like to eat out. With just us, we like to eat in small and simple restaurants and eat just three or four dishes. We only eat in big restaurants when we have invited guests, some business friends.
Figure 4.1
Consumer-Related Factors Affecting Use of Processed Food

We sometimes eat in very small places that are privately owned. They are very convenient when there's no time to cook or we're on a trip. (Female, 24)

As with processed foods, the use of restaurants is governed by a complex network of multi-faceted social and economic elements. In Nanjing, restaurants of all kinds are plentiful: large and small, upscale and common, outdoor and indoor, state-run and privately owned, local and ethnic. Opening a restaurant is currently a popular way for entrepreneurs to try their hand in the private economy. For consumers who can afford it, restaurants provide a break from the time-consuming food shopping and preparation activities, and are fun as well. Restaurants also allow consumers an opportunity to be exposed to new kinds of food:
We eat out almost once a week to try new dishes. We prefer Western fast food, like McDonald’s and KFC, for they are clean and taste different from common Chinese food. Chinese food in restaurants costs way too much and is not as good or economical as eating at home. (Female, 43)

In the thirty-year period between 1949 and 1979, there were a limited number of restaurants, and they were mainly patronized by individuals conducting state business (Lo 1981). For Chinese people over age 40, restaurants have never been an active part of their lifestyle, and many of the informants do not seem to include restaurants in their mind set of places to go:

Once I ate in a restaurant near the railroad station. I ordered several dishes and the bill came to around 60 yuan (about U.S. $7.50). My overall impression was: dirty, expensive, and bad-tasting. But if you eat in the Central Hotel (a four star hotel), you have to bring at least 300 yuan (about U.S. $37) with you. That’s the minimum for a simple meal: that is a dish, a soup. If your expenses are not paid by your work unit, who can afford it? (Female, 42)

To some informants, the idea of paying somebody else money to cook something that they can cook themselves, and better, seems just plain indecent:

We never eat out. It’s too expensive, and the food isn’t good. The only time we eat in restaurants is when friends invite us to eat with them. However, we never ask friends to eat out; we ask them to eat with us at home. Even when we celebrate our birthdays, we eat at home. Plus, when you eat out, you have to order more food than you can eat. Then you can’t take what you haven’t finished home with you. It’s wasteful. When you eat at home, you can use the leftovers. (Male, 49)

As this consumer suggests, a new and prominent use of restaurants is for entertaining guests. An important, emerging trend in Nanjing, and throughout China, is to show respect for guests by entertaining them in restaurants. Many informants claim that they only eat in restaurants when they are treating others.
As is the case of processed foods, the use of restaurants is highly compatible with traveling and the overall greater mobility of Nanjing residents. Informants reported eating in restaurants when they were away from the house for the day, or visiting another city. These conditions, where the consumers have few options but to eat someone else’s cooking, may be socializing the consumers to accept the use of restaurants on other occasions when they have more choice, and, in that sense, encouraging a change to new behaviors.

Young people, in the period between high school graduation and marriage, are enthusiastic patrons of restaurants. Eating out is popular with the young for socializing in groups, dating, and celebrating major events, such as birthdays and graduations. This group has limited sources of income and tends to patronize the less expensive restaurants, particularly the outside food stalls. This generation is growing up with a much different attitude toward restaurants than their parents. Upon marriage, they will probably be less reluctant than their elders to accept restaurant use into family food consumption patterns.

Predictably, restaurant use and income are closely related. Bourdieu (1984) states that “...an agent has what he likes because he likes what he has.” The lower income informants do not have the money needed to eat in restaurants, and, consistent with Bordieu’s theory, most profess to no desire to eat out:

I never eat in a restaurant, because they are not clean. I worry about hepatitis. (Male 50)

Restaurants are expensive and dirty. I never use them. When we go on family outings, we bring along our own hard-boiled eggs, and water. (Male, 45)
It seems that these informants exaggerate the dangers of eating in "dirty" restaurants as rationalization for not participating in an activity that they cannot really afford anyway.

On the other hand, the two very wealthy informants who were interviewed both claim to eat in restaurants several times a week:

We enjoy eating at restaurants and eat out frequently. We usually eat at hotel restaurants, at the Jingling Hotel, the Grand Hotel, and the Xuanwu Hotel. We will probably eat out tonight. Also, we frequently entertain guests at restaurants. We would never entertain people at our house. First, it is too small. Second, we want to show our respect for our guests. (Female, 35)

Hotel restaurants, such as those listed above, while relatively expensive, have the reputation for being clean and using fresh, high quality ingredients. As such, for the small percentage of Nanjing residents who can afford to eat in those expensive restaurants, eating out allows a way to provide the family with fresh, healthy food without intensive labor.

Altogether, a number of factors are affecting Nanjing residents' acceptance of the use of restaurants. Again, an inconsistency in beliefs is visible, not only at the group level but at the individual level. For example, one informant who said she "never" patronized restaurants, admitted, upon further query, that she sometimes bought carry out lunches andlikes to eat at small, inexpensive noodle restaurant near her home.

Another informant who called restaurants "dirty" celebrated the birthday of her 10-year-old son at a restaurant.

The restaurants managers who were interviewed expect eating in restaurants to become increasingly popular in Nanjing in the near future. A KFC manager noted that in
just the few years since KFC opened in 1992, more people are eating out due to rising incomes and a change in the “thinking concerning consumption”:

In 1992, there weren’t as many consumers as there are today for KFC. At that time, the average income of Nanjing citizens was not as high as it is today, the thinking concerning consumption had not changed. But today it is different. Our society has become busier and more open, people have become richer, and, consequently, eating out has become more and more popular. (Manager, KFC)

Another restaurant manager foresaw success for restaurants with “a special character” when asked his prediction for the restaurant business in the next few years:

Most restaurants can expect to become more successful and profitable. At the same time, other restaurants, who do not have a special character, will be driven from the market. As China develops, people will become richer. They will eat in restaurants more and more, especially restaurants that are more expensive, but more comfortable and clean. (Manager, upscale restaurant)

Pointing out that her food was affordable for “most people,” the owner of a dumpling restaurants also foresees a promising future for the restaurant business:

The customers can have an inexpensive and substantial meal at my restaurant. Most people can afford it...It is a satisfying business. I enjoy it. Furthermore, I believe my business will improve, because people’s living conditions will become better. (Owner, dumpling restaurant)

Figure 4.2 summarizes the many factors affecting use of restaurants.

Shopping Every Day: Frequency of Food Shopping Trips

My first consideration when I buy food is to buy food that the family likes. The second factor is that we all go to work, and no one has time to buy food every day. So we need to buy food that will last for several days. (Female, 52)

The busy physical quoted above, who is married to a heart surgeon, said that she is grateful that she can reduce food shopping trips by storing unused food in the

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Figure 4.2
Consumer-Related Factors Affecting Use of Restaurants

refrigerator. Still, for most informants, food shopping trips are a routine part of their daily life:

I buy food after work. I don’t buy too much at once either. I buy meat only once or twice a month and put it in the freezer for daily use. What I must buy every day is vegetables. I mainly consider what my child wants when I buy food. Sometimes I will go to two markets in one day, because they are both on my way home. I compare the prices between these two markets and then decide which one I should go to the next day. (Female, 42)

Recent changes with potential for transforming food consumption patterns, including the high penetration of refrigerators, the proliferation of processed foods, the addition to the retail structure of supermarkets, and busier lives, have only had a minimal impact of the habit of daily shopping. A number of reasons, most already alluded to in previous sections, explain the persistence of this pattern.
The most important reason that most people in Nanjing continue to shop daily is, as continually stressed in this analysis, the prevailing cultural ideology that values "fresh" above all. Since, as stated earlier, placing vegetables in the refrigerator results in their losing their freshness, consumers have no choice but to shop frequently to provide their families with fresh food. In addition, serving family members a variety of fresh food is central to the role of nurturer for many food shoppers. As such, for many informants, conducting daily food trips is an important technique for reinforcing the centrality of family life.

That is not to say that all informants shop every day. Like the busy physician quoted above, several informants, in fact, said that in recent years they are shopping less. A retired couple, who were living with their daughter and granddaughter temporarily to help out while their son-in-law was overseas, said they shop twice a week, storing unused food in their refrigerator. A young busy mother who works as an accountant said that she makes a big trip to a large market on Sunday and during the week shops about every other day at a smaller market near her home:

I am very busy, working and taking care of my child. When I have time, I enjoy going to the market. But when I am pressed for time I find it tedious. (Female, 29)

Nevertheless, daily trips to the food market continue to be the norm for most informants.

Aside from the strong sociocultural norms that reinforce the daily trip to the market, there are some very practical reasons elicited from informants for frequent shopping. First, very few Nanjing residents have access to a private car. Traveling to the market on foot or bike severely limits the amount a shopper can purchase at one
stop. Furthermore, as stated earlier, storage space is limited, and refrigerators, while becoming bigger with repurchase, are still rather small. Consequently, there are physical limitations to how much can be carried and stored. Still, as stated earlier, the direction of causality between the physical limitations and food shopping behavior is bi-directional, since, at least in 1996, Nanjing food shoppers do not seem to recognize a need to create new solutions to the logistical constraints.

Will the prevalent habit of daily food shopping endure for long? The clear trend would seem to point toward less frequent trips. As lives continue to get busier and alternate food options, such as processed foods and restaurants, become more prevalent, frequency of shopping for food is bound to decrease. However, the lofty standard for freshness will first have to be relaxed for that to occur. See Figure 4.3 for a summary of the factors affecting the frequency of food shopping.

**SUMMARY**

This chapter has explored the adoption of new food consumption habits by analyzing the data gathered through multiple methods of field study. Four major attributes and preferences were found to inform the patterns of food shopping and preparation: an emphasis on freshness, a focus on nutrition, concerns about food safety, and paying a fair price. These attitudes and preferences were further analyzed in light of the theoretical content of the study. Finally, based on the findings, the adoption and resistance of time reduction food purchase choices were examined.

It is hoped that this chapter has underscored the complexity of the structure of tastes that was revealed through the multiple methods of analysis. The social and
Figure 4.3
Consumer-Related Factors Affecting Frequency of Food Shopping Trips

material causes of consumption patterns are numerous and dynamic. The large number of related environmental factors and the rapid speed of change in urban China has led to the development of individual structures of attitudes and beliefs that often outwardly seemed inconsistent and contradictory. The theories presented in Chapter 2 provide some insight into the underlying elements affecting this structure of tastes. The next chapter synthesizes these findings to develop a model and hypotheses that predict the use of time related food purchase choices.
CHAPTER FIVE

A MODEL OF TIME RELATED PURCHASE CHOICE

The main goal of the qualitative research was broad: to understand how patterns of taste shift in a rapidly expanding economy. Time saving food purchase behaviors were introduced as examples. The theoretical context (Chapter 2) and the ethnographic research (Chapter 4) were merged to develop an understanding of consumption change in China. Through the months of observations and interviews, some regularities and variations affecting consumption habits became apparent. Some factors were environmental elements that affected virtually all residents of Nanjing. For example, the low penetration of automobiles and the small amount of storage space in housing, while important influences on consumption behaviors, uniformly affected most Nanjing residents. Other factors that emerged as important sources of variations, however, were economic influences and changing social norms that affect individuals differentially.

Based on the findings from the qualitative research and the theoretical base, this chapter will posit a general model of the use of time related purchase behavior. This general model will be the foundation for a more specific conceptual model of the use of time related food purchase behavior. The individual hypotheses arising from the model will then be described. The findings from the test of the model will be discussed in subsequent chapters.

GENERAL MODEL

Building on the findings described in the previous chapter, together with the theoretical foundation for this study, it is posited that variations in economic resources,
pace of life, and adherence to a prevailing cultural ideology will greatly affect use of
time related purchase behaviors. As Figure 5.1 shows these relationships are expected to
be mediated by the willingness to substitute income for time and the attitude towards the
behavior.

Figure 5.1
General Model of Use of Time Related Purchase Choices

As described in Chapter 2, according to economic efficiency theory (Becker
1965, 1991, 1996; Mincer 1960), consumers will seek out time related purchase options
as their incomes rise and as their life styles become busier. This is because as time
becomes more economically valuable, consumers will delegate production that
previously occurred within the home to an outside source. In other words, busier,
wealthier consumers exchange capital to receive more time.
Findings from the qualitative study, however, indicate that economic efficiency theory, while valid, does not describe many of the Chinese consumers' behaviors. Many consumers with incentives to adopt time related purchase behaviors resist these options. An important component to this resistance is an adherence to the "cultural ideology" of the consumers' environment. As discussed in Chapter 2, a cultural ideology is a prevailing set of values, norms, and practices that guide behaviors (Bourdieu 1984; Holt 1997). Remaining loyal to a cultural ideology is not only important for the maintenance of identities and relationships, but allows consumers to maintain patterns of behavior that seem not only proper, but nearly imperative.

An attitude that mediates these relationships is willingness to spend money to save time. This is an important mediating variable since some consumers who have the economic incentive to engage in time saving behavior are simply not willing to pay money for another person to perform a task that they can perform themselves. They many not feel the time savings justifies the cost, or they may perceive inferior quality associated with the time savings service. This attitude is also related to adherence to a cultural ideology, since substituting income for time requires the willingness on the part of a consumer to depart from the reigning cultural ideology. Another important mediating variable is attitude towards the behavior. This variable is important because the extent to which a consumer adopts a behavior is linked to a great extent by the attitude of the consumer toward the specific behavior.

The next sections shows how this model is tested through the use of food purchase behavior. This model was tested in only one region of the world, with the
constructs represented in the model developed idiosyncratically for that particular region. Still, as will be discussed in a later section, the model is intended to universally represents how consumers make choices during periods when the economic resources and the sociocultural traditions and norms of a given society are in dramatic flux.

**CONCEPTUAL MODEL**

Figure 5.2 shows the conceptual model that, using the example of time related food purchase choices, tests the relationships posited by the general model. The following sections first describe the three time related food purchase behaviors that are used as dependent variables, then discusses and justifies the hypotheses that arise from the model.

![Conceptual Model](image)

**Figure 5.2**

Conceptual Model of Use of Time Related Food Purchase Behaviors
Food Purchase Behavior

As described in a previous section, three specific time reduction food purchase behaviors were selected as dependent variables to be tested in the model, chosen for their vulnerability to economic change and their overall importance to food consumption trends. The food purchase behaviors are: 1) use of processed food; 2) use of restaurants; and 3) frequency of food shopping trips.

Economic Resources and Attitudes toward Using Income as a Substitute for Time.

According to economic efficiency theory, as time constraints increase and income rises, consumers will seek out ways to "buy time" by outsourcing household tasks (Becker 1965, 1991; Mincer 1960). As Becker (1965, p.517) explains:

...a rise in earnings, compensated by a decline in other income so that full income would be unchanged, would induce a decline in the amount of time used at consumption activities, because time would become more expensive. Partly goods would be substituted for the more expensive time in the production of each commodity, and partly goods-intensive commodities would be substituted for the more expensive time-intensive ones. Both substitutions require less time to be used at consumption, and permit more time to be used at work.

In other words, greater income will induce consumers to spend their earning on ways to increase their valuable time and reduce their labor outside of their workplace. Similarly, consumers with less discretionary time will search for ways to gain extra time and save labor. Consequently, it is anticipated that consumers with higher incomes and/or less spare time will be the individuals that will have the most positive attitude toward using their income to "buy" time.
In Chapter 4 a number of cases were described in which economic efficiency theory seemed to explain variation in the use of time related food purchase behavior. For example, a busy professor said that she sometimes bought carry out prepared food to supplement her meals and liked to eat out at least once a week to save time that would otherwise be spent in food preparation. A female engineer said, “Of course processed vegetables cost more, but I think I can afford them. They save me time.” One local newspaper article advised vendors to offer products that cater to convenience “since people have more money and less time” (Chao 1996, p.2).

On the other hand, the lower income, less busy consumers spent more time shopping for food and comparing prices and sometime even visited more than one food market in a day. These consumers are less likely to buy processed food or use restaurants. A retired 67-year-old woman said, “I almost never buy processed food because I have a lot of time to do things myself. Processed food is expensive and not as fresh as food bought directly from the vendors.” These differences in the use of time related food options leads to the first set of hypotheses:

H1: Higher income consumers will have more positive attitudes about using income as a substitute for time.

H2: Consumers who perceive themselves as busier will have more positive attitudes about substituting income for time.
Attitude towards Change and Attitude towards Engaging in Time Reduction Food Purchase Behaviors

Sinologists have noted that traditional Chinese values, such as economic reliance on family ties and a deference to authority, have endured to the present despite significant counter forces in the Mao era (Croll 1994; Smith 1991). Given the central place that food preparation and consumption occupies in the Chinese household, with some informants reporting to spend up to three or four hours a day on food preparation, food purchase behavior seems to be relatively immune to economic forces for some consumers. These individuals are leery of change and adhere to a cultural ideology that includes shopping frequently for the freshest produce possible. Processed food and restaurants are not acknowledged as options for this group. For example, a 62-year-old retired physics professor said, “I don’t think supermarkets will ever be popular in China, because only packaged foods are sold there...I don’t think all these supermarkets that have recently opened will last long.” A 34-year-old factory worker agrees, “I don’t shop in supermarkets. All the food is wrapped up, and you can’t see in it to know if it’s good or not.” It is expected that overall attitude toward change will have a close relationship to acceptance of the new time-saving food options.

H3: Consumers with more positive attitudes toward change will also have more positive attitudes about using time related food purchase behaviors.

Attitude towards Change and Attitude towards Using Income as a Substitute for Time

Older generations of the Chinese people have lived through several different periods in which resources were often scarce and few people were afforded any luxuries.
These individuals have learned to live with minimal comforts. Despite rising wealth, many informants continue to adhere to an ideology of parsimony. As stated in the previous chapter, some informants equate caring for their family members with being physically in control of their families' meals to the largest extent possible. Because of this it is expected that attitude toward change will not only be related to attitudes toward specific food purchase behavior, but also towards the general concept of paying extra for services to save time.

As stated in earlier chapters, retailers are increasingly offering services that save consumers less time. Chinese consumers who are open to the idea of change are the ones who will be willing to “buy time.” While some of the informants were actively seeking ways to save time, other informants indicated a resistance to paying for something they can do themselves. A 46-year-old female focus group participant said, “We almost never buy processed food. We would rather do it ourselves.” A 45-year-old male informant said, “We never buy (prepared products) from the outside. We can make them ourselves easily.” One 29-year-old informant described in detail a time-saving product, but then said she would never buy it herself, “There is a new kind of prepared fish. It comes ready to cook, with ginger, onion, and spices—you just have to steam it. But I don’t trust it. I’d rather just prepare the fish myself.” As these informants’ comments indicate, using time-saving products requires a willingness to change:

H4: Consumers with positive attitudes toward change will have positive attitudes about using income to save time.
Attitude towards Using Income as a Substitute for Time and Attitude towards Engaging in Time Reduction Food Purchase Behavior

Given the large amount of time spent in food-related tasks, consumers who have a positive attitude towards using their income to save time are likely to have a positive attitude toward time reduction food purchase behavior. In fact, Becker (1965, p.514) cites the use of pre-cooked foods as an example of how American might use income as a substitute for time:

The substitution towards goods induced by an increase in the relative cost of time would often include a substitution towards more expensive goods. For example, an increase in the value of a mother's time may induce her to enter the labour force and spend less time cooking by using pre-cooked foods.

Consumers who have a positive attitude toward the "buying" of time are those who are likely to have a positive attitude toward reducing frequency of shopping and using processed food and restaurants. In interviews with the informants, it seemed clear that many individuals felt it was a waste of money to pay money for something they could do themselves. These individuals often had a very negative attitude toward convenience products. A 54-year-old female professor represents this attitude:

People our age prefer to do everything ourselves. We can have a good standard of living, even when the discretionary money is limited. On the other hand, we have formed the habit of relying solely on ourselves. My child sometimes advises us to hire some help, but money doesn't come that easily. I would rather do it myself.

This leads to the next hypothesis:
H5: Consumers with more positive attitudes toward using income to reduce time will have a more positive attitudes toward engaging in time reduction food purchase behavior.

Attitudes toward Engaging in Time Reduction Food Purchase Behavior and Frequency of Engaging in the Behavior

Positive attitudes toward engaging in a behavior is closely tied with actual participation in the behavior, under the proper circumstances (Mittal 1994). In particular, when attitudes are based on actual experience, the attitudes can predict behavior well (Engel, Blackwell, and Miniard 1990). In general, this thesis seemed to be born out in observations of the behavior of the informants in this research as well. For example, the informants who had strong opinions against the use of processed food usually had little packaged food stored in their house, as evidenced by inventories of their storage facilities. Therefore, assuming that attitudes and behavior are generally linked:

H6: Consumers with positive attitudes toward engaging in time reduction food purchase behavior will be more likely to actually engage in that behavior.

Attitudes toward Using Income as a Substitute for Time and Engaging in Time Reduction Food Purchase Activities

Related to the previous set of hypotheses, the consumers who have the most positive attitude regarding the investment of capital to achieve savings of time are the individuals who are most likely to engage in behaviors which save time but cost more. It is expected that the most frequent users of processed foods and meals eaten out and the consumers who spent the least time food shopping are the individuals who feel positively
toward "buying" time. An example is an informant who kept frozen *jiaozi* (dumplings) in her freezer and said she was willing to pay the relatively higher cost for this convenience food to save time. This leads to the final hypothesis:

H7: Consumers with more positive attitudes toward using income as a substitute for time will be more likely to engage in time reduction food purchase activities.

**SUMMARY**

This chapter has presented a conceptual model predicting use of time related food purchase options, based on the findings of the multiple data collection techniques used in the field study and the theoretical framework. The next chapter will describe the development of a measurement instrument that was used in a large scale household survey to test the structural model and its accompanying hypotheses.
CHAPTER SIX

MEASURE DEVELOPMENT AND SAMPLING

The structural model and hypotheses, introduced in Chapter 5, were tested with a representative sample of 330 Nanjing households. Prior to the survey, a measurement instrument was developed and tested with a convenience sample. This chapter: 1) describes the methods used to develop the measurement instrument, 2) presents the results of the pretest of the questionnaire, 3) describes the sampling plan, 4) reports the respondent characteristics, 5) describes the final questionnaire, including scales and behavior measures, and 6) presents the results of tests of the measurement instrument.

PRETEST

Measure development was preceded by comprehensive fieldwork, including the observations, interviews, and focus groups described in Chapter 4. This prior investigation was vital to prevent the cultural bias that Western-educated researchers conducting studies in Asia can unintentionally lend to their studies (Boyacigiller and Adler 1991; Douglas and Craig 1983; Peng, Peterson and Shyi 1991). Adler, Campbell, and Laurent (1989, p. 71) discovered this important point the hard way and wrote, after completing a meaningless study on Chinese managers:

This, of course, brings into question much of the research that is being conducted in Japan and China by western and western-trained researchers using predominantly western models and instrumentation...Will we need to develop more indigenous models, questions, and methods—perhaps more fundamentally based on anthropological methods—if we are to began to understand "them," not just as a reflection of "us"?
The months of field study were meant to ensure that the “models, questions, and methods” used in this study were appropriate to understand “them.”

The goal of the questionnaire design stage was to develop a measurement instrument that could be easily administered in less than fifteen minutes (a constraint of the sponsoring institution) and contained scales that represented the constructs and exhibited adequate psychometric properties (Churchill 1979). The following sections describe the development of the scales and measures of the behaviors.

**Scale Development Procedures**

The following steps were conducted to develop the scales.

1) **Construct development:** To test the conceptual model and hypotheses presented in the previous chapter, it was determined that six scales would need to be developed. Six scales were developed to measure: a) pace of life, b) willingness to spend money to save time, c) attitude towards change, d) attitude towards the use of processed food, e) attitude towards the use of restaurants, and f) attitude towards time spent food shopping.

2) **Initial item pool:** To ensure validity it was pre-determined that all the scale items would be selected from verbatim quotations from the focus groups or nonparticipant observations. Using verbatim quotations also helped ensure that the scale items were in the language of the consumer. Therefore, to develop the initial item pool, the focus group and observation transcripts were screened and quotations were used that represented the constructs.
3) Face validity: The scale items were evaluated for face validity by three judges, a current professor, a retired professor, and a graduate student, from Nanjing University (Bearden, Netemeyer, and Mobley 1993). Based on the evaluation of the judges several of the scale items were altered slightly from the original quotation to clarify their meaning.

4) Pre-test: Survey research in China continues to be a costly and closely monitored approach. Operating under these conditions, a pretest was administered to 110 primary food shoppers in January 1996. The sample was a convenience sample collected via personal networks, and the only qualification for respondents was that they be Nanjing residents who conduct the majority of the shopping for their families. Given the difficulty of conducting these types of surveys, and the number of bureaucratic requirements necessary for the final survey, this was considered to be the best approach. The pretest contained 57 scale items representing six scales. While, due to length restrictions of the pretest, the number of scales items was somewhat constrained, the number met the requirement that the initial pool of items be 50% larger than the final scale (DeVilliss 1991).

5) Item reduction: Several methods were used to evaluate and reduce the scale items. All scale items with item-to-total correlations below 0.50 were deleted as well as items with inter-item correlations less than 0.30 (Zaichowsky 1985). Principal components analysis with varimax rotation was also performed on all the scale items, with the factor solution restricted to a six factor solution, representing the six scales (Churchill 1979), and items with loadings less than 0.50 and/or split loadings were
deleted (Bearden, Netemeyer, and Mobley 1993). The scale items that remained following these purification techniques are shown in Appendix 5.

6) Reliability assessment: Following item reduction, reliability of the scales was assessed using Cronbach’s alpha. As shown in Table 6.1, all of the scales met the minimum threshold for reliability of 0.70 (Nunnally 1978).

7) Nomological validity: Nomological validity was assessed by examining the correlations among the scales and other measures to see if the expected relationships were present. Nomological validity was found to be satisfactory.

Table 6.1
Reliabilities of Scales Following Item Reduction—Pretest

<table>
<thead>
<tr>
<th>Scale</th>
<th># of items (following reduction)</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pace of life</td>
<td>4</td>
<td>.90</td>
</tr>
<tr>
<td>Attitude towards change</td>
<td>6</td>
<td>.70</td>
</tr>
<tr>
<td>Willingness to spend money to save time</td>
<td>5</td>
<td>.82</td>
</tr>
<tr>
<td>Attitude towards processed food</td>
<td>6</td>
<td>.81</td>
</tr>
<tr>
<td>Attitude towards use of restaurants</td>
<td>6</td>
<td>.86</td>
</tr>
<tr>
<td>Attitude towards time spent food shopping</td>
<td>5</td>
<td>.80</td>
</tr>
</tbody>
</table>

Measures of Food Purchase Behavior

In addition to the scales, the pretest was used to test the three major measures of food shopping behavior: use of restaurants, frequency of food shopping trips, and use of processed food. The measures were tested for convergent validity, to be certain that they exhibited the expected relationships. For example, based on the theoretical content of the study and the field methods, “use of restaurants” was expected to be highly
correlated with "attitude towards use of restaurants," as well as the age and income of the respondent.

**Use of Restaurants**

Use of restaurants was measured by asking respondents to indicate how many times within the last month they had eaten in each of the most common types of restaurants within the last 30 days. The measure was a composite of the number of times that had eaten in all restaurants (not each type of restaurants). The list of eight types of restaurants was developed from analysis of the data from the interviews and focus groups, as well as from personal observation.

**Frequency of Food Shopping Trips**

Frequency of food shopping trips was a single item question in which respondents were asked to indicate how many food shopping trips that they average in a seven day period. "Frequency of food shopping trips" and "time spent food shopping" are highly related. While using "time spent food shopping" as a measure was considered, it was found that food shoppers had difficulty determining how much time they spent shopping weekly. In fact, when informants were asked, "How many hours a week to you shop for food?," they were likely to answer first, "Oh, every day." They would then determine hours spent shopping by multiplying the average amount of time spent in a shopping trip by the number of days that they shopped. On this basis, it was determined that "frequency of food shopping trips" would be a more accurate measure than "time spent food shopping."
Use of Processed Food

Use of processed food was measured by giving the respondents a list of processed food and asking them to indicate which ones they had bought within the last thirty days. The list of processed food was generated from items found in the inventories of homes during observations of food consumption activities and from items mentioned by respondents during focus groups and interviews. The pre-test allowed a test of which of these processed foods demonstrated the most variation in buying behavior among the respondents. It was predetermined that items that had been bought by less than 10% or more than 90% of respondents within the last thirty days would be eliminated from the list. In fact, none of the items were bought by more than 90% of respondents, but many had been bought by fewer than 10%. Items eliminated included baby cereal, tomato paste, and canned peas. By selecting the items that fostered the most variation among respondents, the list was reduced from 48 foods on the pre-test to 20 items on the final survey.

Development of Final Survey Instrument

Based on the results of the pretest, a final survey instrument was developed. As with the pretest, the final survey was reviewed by a team of judges from Nanjing University. In addition, the survey instrument had to be approved by officials from Nanjing University and the Jiangsu Education Commission. The only major change required by the government officials with the measure of income. Whereas the instrument previously asked respondents to simply indicate their personal and household income, the instrument was changed to offer individuals income categories to choose.
among. The major scales and measures that were tested in the pretest are described in detail in a subsequent section entitled "Measures." Based on the pretest, the measure instrument was revised for the final survey. The sampling procedure for the final survey is described in the following section.

FINAL SURVEY

Officially sponsored by Nanjing University, the final survey was conducted March 17-19, 1996, resulting in a representative sample of 330 Nanjing primary food shoppers. The door-to-door survey was conducted by twenty-two graduate students from the Nanjing University School of International Business. A two-hour training session was conducted for the surveyors on Friday, March 17, at 3:00 p.m. The students could begin collecting the surveys immediately following the training session and were asked to return the completed questionnaires on Sunday, March 19 between 3:00 and 5:00 p.m. Each team of two represented one of the eleven central zip code areas of Nanjing. Zip codes were selected as the cluster unit, as the zip codes represent all the residential areas within the city limits and contain uniformly sized populations. Within their zip codes, the student teams were each given a randomly selected point, chosen with a random numbers table and a grid over a map, at which to begin the survey. Each respondent was given 20 yuan (about $2.50) for completing the survey. The student teams were paid 15 yuan (slightly less than $2.00) per survey.

The respondents for the survey were the primary food shoppers of households, defined as the individuals who do the majority of food shopping for their families. If the respondent was not home, the surveyors went on to the next home. The student teams
were given forms with which to keep track of the response of the surveyed households (see translated form in Appendix 6). As Table 6.2 shows, the response rate for the survey was 59%, with most of the non-response occurring because no one answered the door, or because the primary shopper was not available for interviewing. Of the respondents, 14% refused to complete the questionnaire. In cases in which the respondent was at the home, the response rate was 78%. The students were asked to remain with respondents while they completed the questionnaire in case there were questions and to check the surveys thoroughly after the respondents had finished to be certain that they had answered every question properly. Of the 332 questionnaires, only two questionnaires had to be eliminated: one because the respondent checked “somewhat agree” for all scale items, and one because a 16-year-old boy filled it out on behalf of his mother.

<table>
<thead>
<tr>
<th>Result of Household Contact</th>
<th># Households</th>
<th>% Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey completed</td>
<td>332</td>
<td>59%</td>
</tr>
<tr>
<td>No answer at door</td>
<td>74</td>
<td>13%</td>
</tr>
<tr>
<td>Primary food shopper not home</td>
<td>62</td>
<td>11%</td>
</tr>
<tr>
<td>Primary food shopper refused to complete the survey</td>
<td>77</td>
<td>14%</td>
</tr>
<tr>
<td>Other reason</td>
<td>14</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>559</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

One cautionary note about the survey is that it was conducted 27 days following the Spring Festival (Chinese New Year), the most important holiday for the Chinese.
Several survey questions, including use of processed food and use of restaurants, required respondents to report incidence of specific food purchase behaviors within the most recent 30 days. Similar to a 30 day period that included Christmas in the U.S., one would expect certain types of food purchase behavior to be slightly inflated in the month around the Spring Festival. Examples include eating in restaurants and purchase of certain foods, such as roast duck.

**Sample Composition**

Demographics of the primary food purchasers who participated in the survey and their households are reported in Table 6.3. Although few reliable statistics describing Nanjing are available (statistics are more frequently reported at the provincial level), the demographic characteristics of the sample match several key statistics reported in the 1995 Nanjing Statistical Yearbook. The mean household size 3.4 (s.d. = 1.19) is close to the mean household size of 3.18 reported in the Yearbook. Average monthly personal income according to the Yearbook is 424.42 yuan, again consistent with the average monthly personal income of the sample (see Table 6.3). Also, the Yearbook reports the proportion of households owning refrigerators as 94.7%, similar to the 95.4% proportion reported in this sample. The fact that 67% of the respondents were females shows that about two-thirds of primary food shoppers are female, a statistic consistent with that found in the pretest and a previous study.
Table 6.3
Sample Demographics

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender of respondent</strong></td>
<td>100%</td>
</tr>
<tr>
<td>Female</td>
<td>67%</td>
</tr>
<tr>
<td>Male</td>
<td>33%</td>
</tr>
<tr>
<td><strong>Age of respondent</strong></td>
<td>100%</td>
</tr>
<tr>
<td>35 or less</td>
<td>25%</td>
</tr>
<tr>
<td>36-45</td>
<td>28%</td>
</tr>
<tr>
<td>46-55</td>
<td>23%</td>
</tr>
<tr>
<td>56 and over</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Household size</strong></td>
<td>100%</td>
</tr>
<tr>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>2</td>
<td>14%</td>
</tr>
<tr>
<td>3</td>
<td>49%</td>
</tr>
<tr>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>5</td>
<td>11%</td>
</tr>
<tr>
<td>6-9</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Education of respondent</strong></td>
<td>100%</td>
</tr>
<tr>
<td>Elementary school or less</td>
<td>8%</td>
</tr>
<tr>
<td>Junior high</td>
<td>25%</td>
</tr>
<tr>
<td>High school</td>
<td>28%</td>
</tr>
<tr>
<td>Training school</td>
<td>11%</td>
</tr>
<tr>
<td>Junior college</td>
<td>15%</td>
</tr>
<tr>
<td>University or graduate degree</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Job status of respondent</strong></td>
<td>100%</td>
</tr>
<tr>
<td>Student</td>
<td>1%</td>
</tr>
</tbody>
</table>

(table con’d.)
<table>
<thead>
<tr>
<th>Demographics</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Job status of respondent</strong> (cont.)</td>
<td></td>
</tr>
<tr>
<td>Self employed</td>
<td>5%</td>
</tr>
<tr>
<td>State institute employee</td>
<td>54%</td>
</tr>
<tr>
<td>Private institute employee</td>
<td>3%</td>
</tr>
<tr>
<td>Retired</td>
<td>24%</td>
</tr>
<tr>
<td>Retired, but working part time</td>
<td>5%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Refrigerator ownership</strong></td>
<td>100%</td>
</tr>
<tr>
<td>Yes</td>
<td>95%</td>
</tr>
<tr>
<td>No</td>
<td>5%</td>
</tr>
<tr>
<td><em><em>Personal income (in yuan</em>)</em>*</td>
<td>100%</td>
</tr>
<tr>
<td>No income</td>
<td>2%</td>
</tr>
<tr>
<td>0-200</td>
<td>2%</td>
</tr>
<tr>
<td>201-400</td>
<td>27%</td>
</tr>
<tr>
<td>401-600</td>
<td>31%</td>
</tr>
<tr>
<td>601-800</td>
<td>21%</td>
</tr>
<tr>
<td>801-1000</td>
<td>14%</td>
</tr>
<tr>
<td>1001-2000</td>
<td>6%</td>
</tr>
<tr>
<td>2001 or more</td>
<td>2%</td>
</tr>
<tr>
<td><em><em>Household income (in yuan</em>)</em>*</td>
<td>100%</td>
</tr>
<tr>
<td>0-750</td>
<td>14%</td>
</tr>
<tr>
<td>751-1000</td>
<td>16%</td>
</tr>
<tr>
<td>1001-1500</td>
<td>33%</td>
</tr>
<tr>
<td>1501-2000</td>
<td>21%</td>
</tr>
</tbody>
</table>

(table con’d.)
MEASURES

The following sections describe the measures used in the final survey to test the model and the hypotheses represented by the model. The model and hypotheses were tested via six scales, three measures of behavior, and one single item measure of personal income. The number of items listed for each scale is the number remaining following deletion of the items that did not perform according to the criteria established prior to the testing of the scales. The complete translated questionnaire, as well as the original questionnaire in Chinese, is shown in Appendix 7 and Appendix 8. All scales were measured with a seven-point anchored scale, with a range of points from “strongly disagree” to “strongly agree.” As confirmed in the pre-test, a seven-point scale has been found to perform well with Chinese respondents in past studies (Veeck and Burns 1994).

The measures used for the dependent variables will be discussed in the following section.

Dependent Variables

Purchase of processed foods. Purchase of processed food was measured by an index. Respondents were asked to indicate whether or not they had bought one or more of each of 20 kinds of processed foods available in Nanjing within the most recent 30 days. As such, the scale could theoretically range from “0,” indicating the respondent had bought none of the processed food items on the list, to “20,” indicating the

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household income (in yuan*) (cont.)</td>
<td></td>
</tr>
<tr>
<td>2001-3000</td>
<td>16%</td>
</tr>
<tr>
<td>&gt;3000</td>
<td>5%</td>
</tr>
</tbody>
</table>

*At the time of the survey 1 yuan was approximately equal to US $.125
respondent had bought every item at least once. The mean score was 5.12 (s.d.=2.47); the range was 0 to 17. The list of foods was composed of those products found during the inventories of informants' homes and the products mentioned by participants in focus groups and interviews. Consistent with the Chinese translation of processed food, *jiagong shipin*, literally "add work food" a wide variety of products was included on the list, including canned items, such as canned congee and fish; packaged foods, such as instant breakfast cereal and instant noodles; and prepared and cooked foods, such as roasted duck and *baozi* (steamed stuffed buns). The complete list of items is found in the questionnaire in Appendix 8.

**Restaurant Use.** The frequency with which the primary food purchasers dine outside of the home was also assessed via an index. Respondents were asked to indicate how many times they had eaten in each of the most common types of restaurants in China (full-service restaurant, hotel restaurant, outdoor food stall, KFC, McDonald's, other Western fast food restaurant, Chinese fast food restaurant, and other restaurant) within the last 30 days. The measure used to represent restaurant use was the total number of times that the respondent had eaten in a restaurant within the last 30 days. The mean number of times for the respondents was 2.74 (s.d.=5.79); the range was 0 to 25.

**Frequency of food shopping trips.** The frequency of food shopping trips was measured by a single item in which respondents were asked how many trips to buy food that they averaged in a seven day period. The mean number of trips was 5.38 (s.d.=2.25); the range was 1 to 21.
Exogenous Variables

**Personal Income.** The economic resources of the respondents that were measured were income and time (Becker 1965). Personal income was measured via a scaled item (1 to 8) in which respondents were asked to select the range of income that corresponded to their total average monthly income, including all sources of income and bonuses. Since income is an objective construct measured by a single item scale, no scale development was necessary. The use of personal income versus household income merits some discussion, since food is a household product. In the pretest and a past study, while personal income and household income correlate highly, personal income was found to correlate more closely with the use of time related food purchase behavior. When asked to explain this phenomenon, informants said that it is because consumers are more willing to spend money that they have earned themselves on time saving products and services.

**Pace of Life.** The time availability of the respondents was measured with a four-item scale in which respondents were asked to indicate how busy they felt they were. The four items were “I lead a fast life,” “I have a lot of free time” (reverse scaled), “I am quite busy,” and “My time schedule is very tight.” As in all the scales, the items were selected from verbatim quotations of informants. The items were measured with a seven-point anchored scale, with a range of points from “strongly disagree” to “strongly agree.”

**Attitude towards Change.** “Attitude towards change” was measured with a three-item scale intended to measure the degree with which informants were willing to
change their behaviors as opposed to continuing to do things as in the past. The three items are “The traditional way of doing things is usually the best,” “I like to do things the old way,” and I normally prefer doing things the old way.” All of these items were reverse scaled. The original scale included items that were positive toward change as well, but these items were omitted during the scale diagnostic stage. The items were measured with a seven-point anchored scale, with a range of points from “strongly disagree” to “strongly agree.”

Mediating Variables

Willingness to spend money to save time. A three-item scale was used to measure the respondents' willingness to use their income to "buy" time. The items are “I do not use money to save time—I'd rather do everything myself,” “I like to do everything myself to save money,” and “When you do things yourself, you can save a lot of money.” All of these items were reverse scaled. The positive items that had been developed for this scale were omitted during the item reduction stage. The items were measured with a seven-point anchored scale, with a range of points from “strongly disagree” to “strongly agree.”

Attitudes toward time related food purchase behavior. The respondents' attitudes toward time related food purchase behavior were measured with three separate scales. A four-item scale measured attitudes toward the use of processed food. The items are “Processed food doesn’t taste good,” “I’m not willing to buy processed food,” “I don’t like to buy processed food, because I’m not sure if it’s clean,” and “The taste of processed food is not good.” The fact that all of these items express negative feelings
toward processed food is worth noting. Since the items were all developed from
verbatim quotations, most of the items were negative on the initial pretest. During the
scale diagnostic process, the positive items were deleted due to poor performance. All
of the items were reverse scaled.

A four-item scale measured attitude towards eating in restaurants. The items
included in the scale are “I like to go out to eat,” “We like to entertain guests in
restaurants,” “I think eating out is nice,” and “I do not like to go out to eat.” While the
item “We like to entertain guests in restaurants,” seems different from the other items, it
is an important component in attitudes toward eating in restaurants. As discussed in
Chapter 4, entertaining guests is a recent, important function of restaurants.

Attitude toward time spent shopping was meant to capture to how the
respondents felt overall about the time they spent shopping, including the amount of time
that they were willing to spend shopping and the frequency with which they preferred to
make trips. The scale was measured with a five-item scale. The items are “When I go
to the market, I like to buy a lot of food at one time to save trips,” “I go to buy food
almost every day” (reverse scaled), “I prefer to go to the market every day” (reverse
scaled), “I look for ways to reduce trips to buy food,” and “I don’t like to spend a lot of
time at the market buying food.” Again, all three scales were measured with a seven-
point anchored scale, with a range of points from “strongly disagree” to “strongly
agree.”
Individual and Household Demographic Variables

The survey also measured a number of household and demographic variables. The selection of variables was predominantly based on variables that have been found to be correlated with food consumption patterns in previous studies, but adjusted for characteristics unique to the lifestyle in urban areas of China. Variables that have been used to segment food consumers in past studies include gender (Zeithaml 1985); age (Hortman et al. 1990; Rubin, Riney, and Molina 1990; Yavas, Kaynak, and Borak 1981; Zeithaml 1985); marital status (Yavas, Kaynak, and Borak 1981; Zeithaml 1985); educational level (Goldman 1982; Hortman et al. 1990; Zeithaml 1985); household size (Rubin, Riney, and Molina 1990; Yavas, Kaynak, and Borak 1981; Zeithaml 1985); number of children in the household (Yavas, Kaynak, and Borak 1981; Hortman et al. 1990); income level (Goldman 1982; Zeithaml 1985; Hortman et al. 1990; Rubin, Riney, and Molina 1990; Strober and Weinberg 1980); and distance from the nearest food market (Goldman 1982; Hortman et al. 1990).

Although car ownership has been suggested as a useful predictor of food shopping patterns in Western studies (Yavas, Kaynak, and Borak 1981; Goldman 1982), the penetration of automobiles in China is currently too low to lead to significant relationships. Additionally, while working status of female adults has frequently been shown to be related to food purchase habits in U.S. studies (Zeithaml 1985; Rubin, Riney, and Molina 1990; Schaninger and Allen 1981; Strober and Weinberg 1980), from 1949 almost to the present, full employment for all citizens, male or female, was the official policy of the Chinese government. As such, virtually all adult females under the
age of 55 in China are "working women." Also, the strict enforcement in urban areas, including Nanjing, since 1979 of China's one-child-per-family regulation (Davis and Harrell 1993) means that almost all children age 18 and under are only children.

MEASUREMENT PROPERTIES

Prior to testing the structural model, the final survey instrument was tested for its psychometric properties. Results of the testing procedure are reported below.

Normality

All variables and summed scales were examined for normality via data plots and statistical tests. The skewness and kurtosis for all variables met acceptable standards, suggesting that the data was appropriate for analyses. Skewness and kurtosis statistics for the scale items are shown in Table 6.4.

Internal Consistency and Reliability

The questionnaire included 32 items for this study, representing 6 scales. The 32 scale items were analyzed as a set via principal components analysis with varimax rotation. The factor solution was restricted to a six factor solution, representing the six scales. Only scale items with factor loadings greater than .50 were retained. Split loadings were also deleted. This process led to the deletion of 9 scale items, resulting in a final 6 factor solution of 23 scale items. The six factors accounted for 70.7% of the total variance, with eigenvalues ranging from 7.25 to 1.25.

Evidence of internal consistency is shown via construct reliability and variance extracted (VE) estimation. As shown in Table 6.4, the reliability estimates of the six scales range from .73 to .87. The variance extracted estimates evaluate the amount of
variance explained by a scale’s measure relative to random measurement error. Variance 
extracted estimates above .50 indicate internal consistency within a scale’s items (Fornell 
and Larcker 1981). As shown in Table 6.4, 5 of the 6 scales had VE’s above .50, and 
the sixth scale had a VE of .41. The item-to-total correlations of the scales were also 
examined. No item-to-total correlation was less than .50.

Table 6.4

<table>
<thead>
<tr>
<th>Scales represented in all models</th>
<th># of items</th>
<th>Construct reliability</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>VE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pace of life</td>
<td>4</td>
<td>.87</td>
<td>-.44</td>
<td>-.76</td>
<td>.62</td>
</tr>
<tr>
<td>Attitude towards change</td>
<td>3</td>
<td>.87</td>
<td>.20</td>
<td>-.95</td>
<td>.69</td>
</tr>
<tr>
<td>Willingness to spend money to save time</td>
<td>3</td>
<td>.85</td>
<td>.28</td>
<td>-1.02</td>
<td>.66</td>
</tr>
<tr>
<td>Attitude towards the use of processed foods</td>
<td>4</td>
<td>.73</td>
<td>.71</td>
<td>-.34</td>
<td>.41</td>
</tr>
<tr>
<td>Attitude towards the use of restaurants</td>
<td>4</td>
<td>.88</td>
<td>.51</td>
<td>-.78</td>
<td>.64</td>
</tr>
<tr>
<td>Attitude towards time spent food shopping</td>
<td>5</td>
<td>.86</td>
<td>-.17</td>
<td>-.81</td>
<td>.55</td>
</tr>
</tbody>
</table>

Discriminant Validity

Tests of discriminant validity were performed on the six scales. As Table 6.5 
shows, the phi estimates among the six scales range from .28 to .64. With the addition 
of the food purchase behaviors and the single item measure of income, the range extends 
from -.07 to -.85. Discriminant validity was assessed in two ways. First the confidence 
interval around the phi estimate was examined for the presence of a “1” (Bagozzi and 
Phillips 1982). For all pairs of factors, the confidence interval constructed around the
### Table 6.5
Confirmatory Factor Analysis: Phi Estimates for Measurement Models

<table>
<thead>
<tr>
<th>All scales and variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Pace of life</td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Attitude towards change</td>
<td>.29</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Willingness to use money to save time</td>
<td>.38</td>
<td>.50</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Attitude towards the use of processed foods</td>
<td>.30</td>
<td>.27</td>
<td>.49</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Attitude towards the use of restaurants</td>
<td>.28</td>
<td>.43</td>
<td>.54</td>
<td>.64</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Attitude towards the time spent shopping</td>
<td>.33</td>
<td>.38</td>
<td>.48</td>
<td>.27</td>
<td>.41</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Personal income</td>
<td>.33</td>
<td>.35</td>
<td>.67</td>
<td>.46</td>
<td>.54</td>
<td>.54</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Use of processed foods</td>
<td>.38</td>
<td>.33</td>
<td>.55</td>
<td>.52</td>
<td>.59</td>
<td>.42</td>
<td>.77</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Use of restaurants</td>
<td>.42</td>
<td>.51</td>
<td>.61</td>
<td>.57</td>
<td>.75</td>
<td>.46</td>
<td>.63</td>
<td>.79</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>10) Frequency of food shopping trips</td>
<td>-.07</td>
<td>-.21</td>
<td>-.36</td>
<td>-.29</td>
<td>-.39</td>
<td>-.85</td>
<td>-.46</td>
<td>-.37</td>
<td>-.54</td>
<td>1.00</td>
</tr>
</tbody>
</table>
Table 6.6*

Confirmatory Factor Analysis: Comparison of Phi Squared Estimates and Average Variance Extracted (VE)

<table>
<thead>
<tr>
<th>All scales and variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Pace of life</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Attitude towards change</td>
<td>.08</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.66)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Willingness to use money to save time</td>
<td>.14</td>
<td>.25</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.64)</td>
<td>(.67)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Attitude towards the use of processed foods</td>
<td>.09</td>
<td>.07</td>
<td>.24</td>
<td>1.00</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.52)</td>
<td>(.55)</td>
<td>(.53)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Attitude towards the use of restaurants</td>
<td>.08</td>
<td>.18</td>
<td>.29</td>
<td>.41</td>
<td>1.00</td>
<td></td>
<td></td>
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<td></td>
<td>(.63)</td>
<td>(.67)</td>
<td>(.65)</td>
<td>(.53)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Attitude towards the time spent shopping</td>
<td>.11</td>
<td>.14</td>
<td>.23</td>
<td>.07</td>
<td>.17</td>
<td>1.00</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(.58)</td>
<td>(.62)</td>
<td>(.60)</td>
<td>(.48)</td>
<td>(.60)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Personal income</td>
<td>.11</td>
<td>.13</td>
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<td>.21</td>
<td>.29</td>
<td>.29</td>
<td>1.00</td>
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<tr>
<td></td>
<td>(.72)</td>
<td>(.75)</td>
<td>(.74)</td>
<td>(.61)</td>
<td>(.73)</td>
<td>(.68)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Use of processed foods</td>
<td>.14</td>
<td>.11</td>
<td>.30</td>
<td>.27</td>
<td>.35</td>
<td>.18</td>
<td>.59</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.72)</td>
<td>(.75)</td>
<td>(.74)</td>
<td>(.61)</td>
<td>(.73)</td>
<td>(.68)</td>
<td>(.81)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Use of restaurants</td>
<td>.18</td>
<td>.26</td>
<td>.37</td>
<td>.32</td>
<td>.56</td>
<td>.21</td>
<td>.40</td>
<td>.62</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.72)</td>
<td>(.75)</td>
<td>(.74)</td>
<td>(.61)</td>
<td>(.73)</td>
<td>(.68)</td>
<td>(.81)</td>
<td>(.81)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) Frequency of food shopping trips</td>
<td>.00</td>
<td>.04</td>
<td>.13</td>
<td>.08</td>
<td>.15</td>
<td>.72</td>
<td>.21</td>
<td>.14</td>
<td>.29</td>
<td>1.00</td>
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<tr>
<td></td>
<td>(.72)</td>
<td>(.75)</td>
<td>(.74)</td>
<td>(.61)</td>
<td>(.73)</td>
<td>(.68)</td>
<td>(.81)</td>
<td>(.81)</td>
<td>(.81)</td>
<td></td>
</tr>
</tbody>
</table>

*Shaded square indicates inadequate discriminant validity
phi estimates (i.e. +/- two times the estimate’s standard error) did not contain a value of "1", indicating discriminant validity. Next, the average variance extracted between all pairs of factors was compared to the phi estimate squared (Anderson and Gerbing 1988). For all pairs of factors, except one, the average variance extracted (VE) is greater than phi squared, again indicating discriminant validity (See Table 6.6). The single exception is the relationship between “attitude towards time spent shopping,” and “frequency of shopping trips.” While discriminant validity between these two factors is acceptable according to the first test, it is not acceptable according to the more stringent second test. This indicates that the discriminant validity between these two factors is problematic.

**Measurement Models**

The items retained for the six scales were subjected to confirmatory factor analyses via LISREL 8 (Joreskog and Sorbom 1989). Three of the scales were to be used in all of the tests of the model. The other three scales, each representing attitude towards a specific time related food purchase behavior, were to be used independently. To be consistent with the final structural model, three measurement models, each with four scales, was tested. Figures 6.1, 6.2, and 6.3 display the structure of the three measurement models.

As shown in Table 6.7, the fit of the three four-factor models is acceptable. The goodness-of-fit (GFI) ranges from .85 to .92, and the adjusted-goodness-of-fit index (AGFI) ranges from .79 to .88. The comparative fix index (CFI) ranges from .89 to .95.
Figure 6.1
Measurement Model: Use of Processed Food

Figure 6.2
Measurement Model: Use of Restaurants

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Figure 6.3
Measurement Model: Frequency of Trips

Table 6.7
Goodness-of-Fit Measures of Measurement Models

<table>
<thead>
<tr>
<th>Measures of Fit</th>
<th>Test 1—Processed food</th>
<th>Test 2—Use of restaurants</th>
<th>Test 3—Frequency of trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$ tested (df)</td>
<td>187.23 (71)</td>
<td>204.47 (71)</td>
<td>371.15 (84)</td>
</tr>
<tr>
<td>$\chi^2$ null (df)</td>
<td>2102.20 (91)</td>
<td>2577.13 (91)</td>
<td>2700.91 (105)</td>
</tr>
<tr>
<td>GFI</td>
<td>.92</td>
<td>.91</td>
<td>.85</td>
</tr>
<tr>
<td>AGFI</td>
<td>.88</td>
<td>.87</td>
<td>.79</td>
</tr>
<tr>
<td>CFI</td>
<td>.94</td>
<td>.95</td>
<td>.89</td>
</tr>
<tr>
<td>NNFI</td>
<td>.93</td>
<td>.93</td>
<td>.86</td>
</tr>
<tr>
<td>NFI</td>
<td>.91</td>
<td>.92</td>
<td>.86</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.07</td>
<td>.08</td>
<td>.10</td>
</tr>
</tbody>
</table>

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meeting the .88 criteria that has been noted as signifying acceptable fit (Bentler 1990; Bollen 1989). While the fit of the model predicting “frequency of trips” is adequate, the other two models perform better. All of the model’s fit indices are lower than the first two models, and its root mean square error of approximation is .10, which just meets the minimum acceptable threshold.

Table 6.8 displays the final scales and their items following measurement evaluation, as well as their standardized loadings, means, and standard deviations.

<table>
<thead>
<tr>
<th>Item</th>
<th>Loading</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pace of life:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a lot of free time. (R)</td>
<td>.62</td>
<td>4.26</td>
<td>1.79</td>
</tr>
<tr>
<td>I am quite busy.</td>
<td>.79</td>
<td>4.38</td>
<td>1.65</td>
</tr>
<tr>
<td>I lead a fast life.</td>
<td>.79</td>
<td>4.43</td>
<td>1.54</td>
</tr>
<tr>
<td>My time schedule is very tight.</td>
<td>.82</td>
<td>4.54</td>
<td>1.52</td>
</tr>
<tr>
<td><strong>Attitude toward change:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The traditional way of doing things is usually the best. (R)</td>
<td>.76</td>
<td>3.62</td>
<td>1.46</td>
</tr>
<tr>
<td>I like to do things the old way. (R)</td>
<td>.80</td>
<td>3.74</td>
<td>1.47</td>
</tr>
<tr>
<td>I normally prefer doing things the old way. (R)</td>
<td>.79</td>
<td>3.49</td>
<td>1.40</td>
</tr>
<tr>
<td><strong>Willingness to spend money to save time:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I do not use money to save time—I’d rather do everything myself. (R)</td>
<td>.59</td>
<td>3.40</td>
<td>1.72</td>
</tr>
<tr>
<td>I like to do everything myself to save money. (R)</td>
<td>.79</td>
<td>3.30</td>
<td>1.62</td>
</tr>
<tr>
<td>When you do things yourself, you can save a lot of money. (R)</td>
<td>.63</td>
<td>3.37</td>
<td>1.61</td>
</tr>
</tbody>
</table>

(table con’d.)
<table>
<thead>
<tr>
<th>Item</th>
<th>Loading</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attitude toward processed food:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processed food doesn’t taste good. (R)</td>
<td>0.58</td>
<td>3.71</td>
<td>1.25</td>
</tr>
<tr>
<td>I’m not willing to buy processed food. (R)</td>
<td>0.64</td>
<td>3.48</td>
<td>1.40</td>
</tr>
<tr>
<td>I don’t like to buy processed food, because I’m not sure if it’s clean. (R)</td>
<td>0.63</td>
<td>2.85</td>
<td>1.43</td>
</tr>
<tr>
<td>The taste of processed food is not good. (R)</td>
<td>0.62</td>
<td>3.80</td>
<td>1.34</td>
</tr>
<tr>
<td><strong>Attitude toward eating in restaurants:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I like to go out to eat.</td>
<td>0.74</td>
<td>3.15</td>
<td>1.45</td>
</tr>
<tr>
<td>We like to entertain guests in restaurants.</td>
<td>0.61</td>
<td>3.22</td>
<td>1.55</td>
</tr>
<tr>
<td>I think eating out is nice.</td>
<td>0.77</td>
<td>3.53</td>
<td>1.54</td>
</tr>
<tr>
<td>I do not like to go out to eat. (R)</td>
<td>0.78</td>
<td>3.26</td>
<td>1.55</td>
</tr>
<tr>
<td><strong>Attitude toward time spent food shopping:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I go to the market, I like to buy a lot of food at one time to save trips.</td>
<td>0.71</td>
<td>4.23</td>
<td>1.67</td>
</tr>
<tr>
<td>I go to the market to buy food almost every day. (R)</td>
<td>0.67</td>
<td>3.54</td>
<td>1.79</td>
</tr>
<tr>
<td>I prefer to go to the market every day. (R)</td>
<td>0.70</td>
<td>4.03</td>
<td>1.69</td>
</tr>
<tr>
<td>I look for ways to reduce trips to buy food.</td>
<td>0.77</td>
<td>4.71</td>
<td>1.42</td>
</tr>
<tr>
<td>I don’t like to spend a lot of the time at the market buying food.</td>
<td>0.69</td>
<td>4.92</td>
<td>1.35</td>
</tr>
</tbody>
</table>

(R)=reverse scale item

Statements were rated on a 7-point scale (strongly disagree to strongly agree)
CHAPTER SEVEN
RESULTS OF THE ANALYSIS OF FOOD PURCHASE PATTERNS

This chapter presents the results of the tests of the hypotheses introduced in
Chapter 5. First, findings concerning important food purchase behaviors are summarized.
Next, the results of the tests of the model for each of the three time related food
purchase behaviors are presented. The implications of the findings are then related to the
individual hypotheses. A composite model combining first three, and then two, of the
food purchase behaviors is subsequently presented. Finally, multiple analysis of variance
is used to explore the demographic profile of the users of time reduction food purchase
choices.

FOOD SHOPPING PATTERNS IN NANJING

Some of the more interesting results from this study are the behavioral statistics
concerning food shopping patterns. The patterns reflected by these results indicate
shopping patterns and tastes which are significantly different from those in the West.
These statistics allowed a comparison of the attitudes and behaviors noted during the
structured observations with those of the population as a whole. For example, most of
the informants who were interviewed preferred shopping almost every day, and, for these
people, a food shopping trip is part of the daily routine. But did these informants
represent the population with respect to this high frequency of shopping trips, or were
they autonomous? In fact, as shown in the following section, 75% of Nanjing
households have at least one member shopping on their behalf at least six days a week.
Consequently, at least in this respect, the informants were representative of other Nanjing residents.

As stated in the previous chapter, the respondents who completed this questionnaire were the primary food purchasers of the household. Of the respondents who completed the survey, about 67% were female, indicating that about two-thirds of the individuals who conduct the majority of the shopping for their households in Nanjing are female. This figure is consistent with the pretest and with a pilot study conducted in 1994. Since a very small proportion of households in China is single males (less than 2% in this sample), this finding shows that, while females are in charge of food shopping in most households, males are also a significant force. In 47% of households, one individual conducts all of the food shopping for the family, and in the remainder of the surveyed households the role is shared. In the past five or six years, some households have started to hire domestic workers, particularly to care for young children.

Considering this new pattern, respondents were asked if they had paid anyone to shop or cook for them within the last 30 days. Only 12 households in the sample (3.6%) reported that they had paid someone to assist with food consumption activities.

Almost all of the households in Nanjing are within walking distance of a food market, with 82% of respondents within 500 meters and 97% of respondents within 1000 meters of a food market (see Table 7.1). This will be an important statistic to monitor in future years, since the close proximity of housing to markets helps foster frequent shopping. As the state exercises its control over the markets, as seen by the
decree that all markets in Nanjing be enclosed within three years, the proximity of markets could be altered.

<table>
<thead>
<tr>
<th>Distance (in meters)</th>
<th>Percent</th>
<th>Cum. Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 or less</td>
<td>26%</td>
<td>26%</td>
</tr>
<tr>
<td>101-250</td>
<td>26%</td>
<td>52%</td>
</tr>
<tr>
<td>251-500</td>
<td>30%</td>
<td>82%</td>
</tr>
<tr>
<td>501-1000</td>
<td>15%</td>
<td>97%</td>
</tr>
<tr>
<td>&gt;1000</td>
<td>3%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The median (and modal) monthly spending per household on food is 600 yuan (about US $75). This indicates that Nanjing households spend about half of their income on food, a proportion that is consistent with that found in other urban areas of China (Beijing Review 1997). Table 7.2 displays average household monthly spending on food in Nanjing.

<table>
<thead>
<tr>
<th>Average Monthly Spending (in yuan)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>450 or less</td>
<td>19%</td>
</tr>
<tr>
<td>450-600</td>
<td>37%</td>
</tr>
<tr>
<td>601-800</td>
<td>28%</td>
</tr>
<tr>
<td>801-1000</td>
<td>13%</td>
</tr>
<tr>
<td>&gt;1000</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
The main food purchase behaviors of interest in this study are frequency of food trips, purchase of food items, and frequency of eating in restaurants. The average number of trips made by Nanjing households per week to buy food is 7.10 (s.d.=3.52) (see Figure 7.1). Of those trips, 5.32 (s.d.=2.25), or three-fourths of the trips, are conducted by the primary food purchaser. The average number of hours per week spent food shopping per household is 7.52 hours (s.d.=4.43). Of those hours, 5.63 (s.d.=3.21), again about three-fourths, are spent by the primary food purchaser. As would be expected, hours spent shopping and frequency of food trips is highly related (r=.67; p<.00).

Figure 7.1
Average Weekly Food Shopping Trips by Nanjing Households

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To create an index of the use of processed foods, respondents were provided a list of 20 processed foods and asked to indicate whether or not they had bought each item at least once within the last 30 days. The mean number of the 20 processed products purchased by Nanjing households within a 30 day period was 5.12 (s.d.=2.47). To compare the proportions of commonly used processed foods with that of fresh foods, a list of ten fresh foods is also provided. The mean number of the 10 fresh products purchased was 7.62 (s.d.=1.78). Table 7.3 displays the proportion of households that purchased each type of processed and fresh foods within a 30 day period.

Table 7.3
Proportion of Nanjing Households Purchasing Selected Food Items Within 30 Day Period

<table>
<thead>
<tr>
<th>Food Item</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processed Foods</td>
<td></td>
</tr>
<tr>
<td>Roast duck</td>
<td>80%</td>
</tr>
<tr>
<td>Instant ramen noodles</td>
<td>70%</td>
</tr>
<tr>
<td>Salty snacks</td>
<td>58%</td>
</tr>
<tr>
<td>Packaged tofu</td>
<td>56%</td>
</tr>
<tr>
<td>Cooked baozi (steamed stuffed buns)</td>
<td>54%</td>
</tr>
<tr>
<td>Cooked youtiao (deep fried dough)</td>
<td>54%</td>
</tr>
<tr>
<td>Cooked beef</td>
<td>52%</td>
</tr>
<tr>
<td>Ground pork</td>
<td>41%</td>
</tr>
<tr>
<td>Julienneed pork</td>
<td>40%</td>
</tr>
<tr>
<td>Cooked mantou (steamed bread)</td>
<td>40%</td>
</tr>
<tr>
<td>Powdered milk</td>
<td>39%</td>
</tr>
<tr>
<td>Instant cereal</td>
<td>38%</td>
</tr>
</tbody>
</table>

(table con’d.)
<table>
<thead>
<tr>
<th>Food Item</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frozen pork</td>
<td>24%</td>
</tr>
<tr>
<td>Cooked <em>hundun</em> (wontons)</td>
<td>23%</td>
</tr>
<tr>
<td>Frozen <em>jiaozi</em> (dumplings)</td>
<td>15%</td>
</tr>
<tr>
<td>Cooked <em>jiaozi</em> (dumplings)</td>
<td>15%</td>
</tr>
<tr>
<td>Canned congee</td>
<td>14%</td>
</tr>
<tr>
<td>Cleaned and cut vegetables</td>
<td>13%</td>
</tr>
<tr>
<td>Canned fruit</td>
<td>9%</td>
</tr>
<tr>
<td>Canned fish</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Fresh Food</strong></td>
<td></td>
</tr>
<tr>
<td>Greens</td>
<td>98%</td>
</tr>
<tr>
<td>Green beans</td>
<td>96%</td>
</tr>
<tr>
<td>Live fish</td>
<td>92%</td>
</tr>
<tr>
<td>Celery</td>
<td>91%</td>
</tr>
<tr>
<td>Fresh pork</td>
<td>89%</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>89%</td>
</tr>
<tr>
<td>Cucumbers</td>
<td>78%</td>
</tr>
<tr>
<td>Live chicken</td>
<td>65%</td>
</tr>
<tr>
<td>Fresh milk</td>
<td>51%</td>
</tr>
<tr>
<td>Live duck</td>
<td>24%</td>
</tr>
</tbody>
</table>

The third major food consumption behavior of interest in this study was use of restaurants. Table 7.4 displays the proportion of respondents who had eaten in each type of restaurant in the most recent 30 day period. The mean number of times that respondents had eaten in restaurants during that period was 2.74 (s.d.=5.79). However, as the large standard deviation suggests, that number is inflated by a few respondents.
who eat many of their meals in restaurants. In fact, 44% of respondents had not eaten in any restaurant in the prior month, even though the period included the Chinese New Year. It is interesting to note the large number of respondents (38%) who had eaten at least once that month in one of the nine KFC's (formerly named Kentucky Fried Chicken) in Nanjing at that time. Also, 22% of respondents had eaten in McDonald's, although at the time of the survey there were only two McDonald's, and the first had just opened two months earlier.

Table 7.4
Proportion of Nanjing Residents Who Ate in Restaurants within the Last 30 Days

<table>
<thead>
<tr>
<th>Type of Restaurant</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>KFC (Formerly Kentucky Fried Chicken)</td>
<td>38%</td>
</tr>
<tr>
<td>McDonald's</td>
<td>22</td>
</tr>
<tr>
<td>Full-service restaurant</td>
<td>19</td>
</tr>
<tr>
<td>Chinese fast food</td>
<td>10</td>
</tr>
<tr>
<td>Outdoor restaurant</td>
<td>8</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
</tr>
<tr>
<td>Any restaurant</td>
<td>57</td>
</tr>
</tbody>
</table>

STRUCTURAL MODEL EVALUATION

Following psychometric evaluation of the scales, LISREL 8 with maximum likelihood estimation (Joreskog and Sorbom 1989) was used to examine the relationships between the use of time related food purchase behaviors and economic resources, attitude towards change, willingness to use money to save time, and attitudes toward time related food purchase choices. The two step-approach, in which the constructs in
the model were represented with single indicators, using summated scales, was used
(Anderson and Gerbing 1988). The model was tested with three types of time related
food purchase behavior. The following sections describe the results of the model
evaluation, concluding with the results of specific tests of the hypotheses.

**Structural Model Evaluation**

A number of tests were used to evaluate the overall fit and structural fit of the
model. Overall fit was assessed via multiple tests (Bollen 1989), including GFI, AGFI,
NNFI, and CFI. Although no absolute standards exist for these tests, the recommended
level is generally accepted to be around .90 (Hair et al. 1995). Structural fit was
evaluated by examining the coefficients of the paths. The paths, each representing a
hypothesis, were considered significant with t-values greater than 1.65 (p<.05, one-tail
test). When summated scales were used as constructs, the lambda loadings for these
single item indicators were set to the square root of the construct reliability for the
scales, and the error terms were set to 1-construct reliability (Anderson and Gerbing
1988). The time related food purchase behaviors that served as constructs were
represented by indices of reported behavior (in the case of use of processed food and use
of restaurants) or a single-item indicator (in the case of frequency of shopping trips).
Since these constructs were not believed to be measured perfectly, their single item
indicators were set to the square root of .90, with the errors term set to .10. The other
construct in the model that was not represented by a summated scale was personal
income. As in the case of the constructs representing the behaviors, the indicator for
income was set at .90, since income was not likely to be measured without error.
Overall Fit

The model was tested with three different behavioral variables: use of processed food, use of restaurants, and frequency of shopping trips. During each of the three tests the model was identical, except that the construct representing the time related food purchase behavior and the construct representing the attitudes toward that particular behavior were changed.

The tested structural model, along with its estimated parameters, is shown in Figure 7.2, Figure 7.3, and Figure 7.4. With correlation matrices as input, the model has an acceptable fit for all three behaviors. For use of processed food, use of restaurants, and frequency of shopping trips, the overall $\chi^2$ goodness of fit statistics are 24.92 (df=8), 15.48 (df=8), and 26.31 (df=8) respectively. As Table 7.5 shows, the absolute fit statistics (GFI, AGFI) and the relative fit statistics (NFI, CFI, and NNFI) are all greater than .90. The results, including the parameter estimates, the very small normalized residuals, and the acceptable range of the variables (i.e. no negative variances) suggest that the model fits the three sets of data very well. The correlation matrix for the tests are shown in Appendix 9.

Structural Fit

Structural fit of the model was evaluated by examining the path estimates, with a t-value greater than 1.65 considered significant at .05. As shown in Table 7.6, the t-values for 20 out of 21 paths were significant. As will be discussed in detail in the follow section, these results indicate substantial support for the hypotheses of the study.
Figure 7.2
Structural Model with Path Estimates: Use of Processed Food

Figure 7.3
Structural Model with Path Estimates: Use of Restaurants

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Figure 7.4
Structural Model with Path Estimates: Frequency of Food Shopping Trips

Table 7.5
Goodness-of-Fit Measures of Structural Model

<table>
<thead>
<tr>
<th>Measures of Fit</th>
<th>Test 1—Processed food</th>
<th>Test 2—Use of restaurants</th>
<th>Test 3—Frequency of trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$ tested (df)</td>
<td>24.92 (8)</td>
<td>15.48 (8)</td>
<td>26.31 (8)</td>
</tr>
<tr>
<td>$\chi^2$ null (df)</td>
<td>398.32 (15)</td>
<td>417.10 (15)</td>
<td>392.19 (15)</td>
</tr>
<tr>
<td>GFI</td>
<td>.97</td>
<td>.98</td>
<td>.97</td>
</tr>
<tr>
<td>AGFI</td>
<td>.93</td>
<td>.96</td>
<td>.93</td>
</tr>
<tr>
<td>CFI</td>
<td>.96</td>
<td>.98</td>
<td>.95</td>
</tr>
<tr>
<td>NNFI</td>
<td>.92</td>
<td>.97</td>
<td>.91</td>
</tr>
<tr>
<td>NFI</td>
<td>.94</td>
<td>.96</td>
<td>.93</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.08</td>
<td>.05</td>
<td>.09</td>
</tr>
</tbody>
</table>

*p < .05

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Table 7.6
Path Coefficient Estimates of Structural Model

<table>
<thead>
<tr>
<th>Test</th>
<th>Test 1</th>
<th>Test 2</th>
<th>Test 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path</td>
<td>Estimate</td>
<td>Estimate</td>
<td>Estimate</td>
</tr>
<tr>
<td></td>
<td>(t-value)</td>
<td>(t-value)</td>
<td>(t-value)</td>
</tr>
<tr>
<td>Income availability → Willingness to spend money to save time</td>
<td>.37 (6.69*)</td>
<td>.35 (6.42*)</td>
<td>.35 (6.30*)</td>
</tr>
<tr>
<td>Pace of life → Willingness to spend money to save time</td>
<td>.22 (3.90*)</td>
<td>.23 (3.91*)</td>
<td>.23 (3.95*)</td>
</tr>
<tr>
<td>Attitude towards change → Willingness to spend money to save time</td>
<td>.19 (2.58*)</td>
<td>.18 (2.63*)</td>
<td>.14 (1.89*)</td>
</tr>
<tr>
<td>Attitude towards change → Attitude towards time related food purchase behavior</td>
<td>.37 (6.45*)</td>
<td>.37 (6.54*)</td>
<td>.37 (6.47*)</td>
</tr>
<tr>
<td>Willingness to spend money to save time → Attitude towards time related food purchase behaviors</td>
<td>.50 (7.94*)</td>
<td>.44 (5.98*)</td>
<td>.50 (7.04*)</td>
</tr>
<tr>
<td>Attitude towards time related food purchase behavior → Use of time related food purchase behavior</td>
<td>.27 (2.86*)</td>
<td>.22 (3.04*)</td>
<td>.03 (0.38)</td>
</tr>
<tr>
<td>Willingness to spend money to save time → Use of time related food purchase behavior</td>
<td>.26 (2.63*)</td>
<td>.45 (6.06*)</td>
<td>-.62 (-9.33*)</td>
</tr>
</tbody>
</table>

*p < .05

HYPOTHESES RESULTS

The hypotheses were evaluated via the general structural equation model, with the model tested three times with different types of time related food purchase behaviors. The results of the evaluation follows.

Economic Resources and Attitude towards Substituting Income for Time

Income was expected to be positively related to individuals’ willingness to substitute income for time. The hypothesis was expressed as follows:
H1: Higher income consumers will have more positive attitudes about using income as a substitute for time.

In the three tests of the model, the beta parameter estimates were .37 (t=6.69) for use of processed food, .35 (t=6.42) for use of restaurants, and .35 (t=6.30) for frequency of shopping trips.

Willingness to substitute income for time was also expected to be positively related to how busy the individuals felt they were:

H2: Consumers who perceive themselves as busy will have more positive attitude about substituting income for time.

This hypothesis is also supported by the tests of the model, with parameter estimates of .22 (t=3.90) for use of processed foods, .23 (t=3.97) for use of restaurants, and .23 (t=3.95) for frequency of shopping trips. These results indicate that, as anticipated, primary food shoppers who have more money and less time are the ones who will have the most positive attitudes toward using products and/or services that save them time, even when it involves additional costs.

Attitude towards Change and Attitude toward Engaging in Time Reduction Food Purchase Behavior.

Interviews with informants indicated that there is a stigma attached to using some time saving products and services. Since these products and services are become increasingly available, it was hypothesized that the individuals who felt more positive toward change in general were more likely to have a positive attitude about using time-saving products and services:
H3: Consumers with more positive attitudes toward change will also have more positive attitudes about using time related food purchase behaviors. This hypothesis was supported with all three tests of the model. The path estimate between attitude towards change and attitude towards use of processed food was .19 ($t=2.58$). The path estimate between attitude towards change and attitude towards eating out was .18 ($t=2.63$). The path estimate between attitude towards change and attitude towards frequency of shopping trips was .14 ($t=1.89$). This shows that, as hypothesized, those individuals who express positive feelings toward the concept of change also will respond more favorably toward new food purchase choices that are emerging with change.

**Attitude towards Change and Attitude towards Using Income as a Substitute for Time.**

Attitude towards change and willingness to substitute income for time was expected to exhibit a positive relationship. This hypothesis was expressed as follows:

H4: Consumers with positive attitudes toward change will have positive attitudes about using income to save time.

This hypothesis was also supported by the three tests of the model, with path estimates of .37 ($t=6.45$), .37 ($t=6.54$), and .37 ($t=6.47$). In other, words individuals who express a more positive attitude toward the concept of change in general are more likely to be willing to buy products and services that will save them time.
Attitudes toward Using Income as a Substitute for Time and Attitudes toward Engaging in Time Reduction Food Purchase Behavior

Interviews with informants revealed that certain individuals were much more likely to have a positive attitude toward paying extra money to buy time saving products and services. Those individuals had the greatest propensity for using these products and services. This is hypothesized as follows:

H5: Consumers with more positive attitudes toward using income to reduce time will have more positive attitudes toward engaging in time reduction food purchase behavior.

This hypothesis was also strongly supported by the three sets of data. The estimated path coefficient between attitude towards using income to save time and the attitude towards the use of processed food was .59 (t=7.94). The path coefficient between attitude towards using income to save time and the use of restaurants was .50 (t=7.04). The path coefficient between attitude towards using income to save time and attitude towards reducing shopping trips was .44 (t=5.98). These tests showed that people who expressed a positive attitude toward the use of time-saving products and services were also likely to feel positive toward the specific behaviors themselves, including using processed food and services and reducing the frequency of food shopping trips.

Attitude towards Engaging in Time Reduction Food Purchase Behavior and Frequency of Engaging in the Behavior

The next hypothesis referred to the link between individuals’ attitudes and behaviors. Although, for a number of reasons, attitudes and behaviors are not always
perfectly correlated, a positive relationship is generally expected. This hypothesis suggested that people who expressed a positive attitude toward engaging in specific food purchase behavior actually did engage in them:

H6: Consumers with positive attitudes toward engaging in time reduction food purchase behavior will be more likely to actually engage in that behavior.

This hypothesis was strongly supported in all three tests of the model. The estimated path coefficient between attitudes towards using processed food and actual use of processed food (measured via an index of 20 products) was .26 (t=2.63). The path coefficient between attitudes towards use of restaurants and actual use of restaurants (also measured via an index of use of restaurants in the last 30 days) was .45 (t=6.06). The path coefficient between attitudes toward frequency of food shopping trips and actual frequency of shopping trips (number of food shopping trips average in a week) was -.62 (t=-9.33). In short, peoples' behavior is generally consistent with their attitudes. The paths have a positive or negative signs according to the test due to the nature of the behaviors measured. That is, greater use of time related food purchase behavior is associated with greater use of processed foods and restaurants, but fewer shopping trips. As such, the paths of the first two tests were positive, and the path of the third test was negative.
Attitude towards Using Income as a Substitute for Time and Engaging in Time Reduction Food Purchase Activities

This hypothesis also tested the link between attitude and behavior but via a more subtle relationship. That is, it was expected that individuals who express a positive attitude toward buying time reduction products and services will actually participate in these behaviors:

H7: consumers with positive attitudes toward using income as a substitute for time will be more likely to engage in time reduction food purchase activities.

This hypothesis was supported by two of the three tests. In the first test of the model, the beta parameter estimate was .27 (t=2.86) for the path between attitude towards time reduction food purchase behavior and frequency of buying processed food. In the case of frequency of eating in restaurants, the path coefficient was .22 (t=3.04). In the third test, that of number of weekly food shopping trips, the path coefficient was .03 (t=.38), or not significant. These tests indicate that people who express a positive attitude toward engaging in time saving behaviors actually participate in food purchase behaviors in that category, including buying processed food and eating in restaurants. However, having a positive attitude toward time saving products and services did not directly lead to a decrease in food shopping trips. It is important to note, though, that the strong paths in the model between attitude toward buying time reduction products and service and attitudes toward frequency of food shopping trips (i.e. H5; path coefficient=.44) and attitude toward frequency of food shopping trips and actual number of shopping trips...
(i.e. H6; path coefficient = -.62) suggests that there is a relationship between attitudes toward using income as a substitute for time and reduction of food shopping trips. The relationship is indirect, however, mediated by attitudes towards frequency of trips. This result is not surprising, since willingness to use money to buy time would be expected to have a more direct relationship with use of processed foods and use of restaurants than with frequency of food shopping trips.

The summary of the tests of the seven hypotheses are displayed in Table 7.7.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Higher income consumers will have more positive attitudes about using income as a substitute for time.</td>
<td>Supported</td>
</tr>
<tr>
<td>H2: Consumers who perceive themselves as busier will have more positive attitudes about substituting income for time.</td>
<td>Supported</td>
</tr>
<tr>
<td>H3: Consumers with more positive attitudes toward change will also have more positive attitudes about using time related food purchase behaviors.</td>
<td>Supported</td>
</tr>
<tr>
<td>H4: Consumers with positive attitudes toward change will have positive attitudes about using income to save time.</td>
<td>Supported</td>
</tr>
<tr>
<td>H5: Consumers with more positive attitudes toward using income to reduce time will have more positive attitudes toward engaging in time reduction food purchase behavior.</td>
<td>Supported</td>
</tr>
<tr>
<td>H6: Consumers with positive attitudes toward engaging in time reduction food purchase behavior will be more likely to actually engage in that behavior.</td>
<td>Supported</td>
</tr>
<tr>
<td>H7: Consumers with more positive attitudes toward using income as a substitute for time will be more likely to engage in time reduction food purchase activities.</td>
<td>Supported for two of the three behaviors</td>
</tr>
</tbody>
</table>
COMPOSITE STRUCTURAL MODEL

The redundancy among the paths of the three tests of the structural models suggests that the process with which the individual time related food purchase behaviors are adopted may be generalizable to the adoption of the category of time related food purchase behaviors. As an exploratory step, the three food purchase behaviors were combined to create a composite model to test a more universal conceptual model. This model was found to violate a key assumption of structural equation model, as well as to have substandard goodness of fit. As a result, the model was respecified to include two of the three time related purchase behaviors. The results of the two tests are presented in the following sections.

Composite Model—Three Time Related Food Purchase Behaviors

In the first test, the construct, use of time related food purchase behaviors, was composed of three indicator variables: 1) use of processed food, 2) use of restaurants, and 3) frequency of food shopping trips. These variables were all converted into z-scores, and the frequency of food shopping trips was reversed so the variables would be compatible. The construct, attitude towards use of time related food purchase behaviors, was composed of three separate summated scales: 1) attitude towards use of processed food, 2) attitude toward use of restaurants, and 3) attitude towards frequency of food shopping trips. The remaining constructs were identical to those used in the previous tests (see Figure 7.5).

The test of this model can only be considered exploratory, because a major requirement necessary to conduct structural equation modeling via LISREL was
violated. Specifically, the coefficient reliability for the construct, use of time related food purchase behaviors, was .56, or lower than the acceptable level of .60 to .70 (Nunally 1978). This figure is low, because, while the three food purchase behaviors are significantly related, their correlation is not high enough to provide good reliability (see Appendix 9 for correlation matrix). The coefficient reliability for the construct, attitude towards use of time related food purchase behaviors, was adequate, at .82.

As Table 7.8 shows, the overall fit for this test of the model is weak. The root mean square error of approximation (RMSEA) is problematic at .12, larger than the maximum threshold of .10. As seen in Table 7.9, all of the paths of the model are significant at p<.05, indicating further support for the hypotheses. Still, these results should be viewed with caution due to the inherent problems of the test.

**Composite Model--Two Time Related Food Purchase Behaviors**

Because the first test violated key assumptions, a second composite model was developed combining two out of the three food purchase behaviors. "Frequency of food shopping trips" was omitted from the model, since the other two behaviors shared more commonality, both conceptually and statistically. As such, in this test, the construct, use of time related food purchase behaviors, was composed of two indicator variables: 1) use of processed food and 2) use of restaurants. The construct, attitude towards use of time related food purchase behaviors, was composed of two summated scales: 1) attitude towards use of processed food and 2) attitude towards use of restaurants. Again, the remaining constructs were identical to those used in the previous tests (see Figure 7.6).
Figure 7.5
Structural Model with Path Estimates: Composite Model with Three Variables

Figure 7.6
Structural Model with Path Estimates: Composite Model with Two Variables
Table 7.8
Goodness-of-Fit Measures of Structural Model

<table>
<thead>
<tr>
<th>Measures of Fit</th>
<th>Composite test—Use of processed foods, use of restaurants, and frequency of food shopping trips</th>
<th>Composite test—Use of processed foods and use of restaurants</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$ tested (df)</td>
<td>179.62 (32)</td>
<td>43.95 (17)</td>
</tr>
<tr>
<td>$\chi^2$ null (df)</td>
<td>1283.60 (45)</td>
<td>1049.56 (28)</td>
</tr>
<tr>
<td>GFI</td>
<td>.91</td>
<td>.97</td>
</tr>
<tr>
<td>AGFI</td>
<td>.85</td>
<td>.93</td>
</tr>
<tr>
<td>CFI</td>
<td>.88</td>
<td>.97</td>
</tr>
<tr>
<td>NNFI</td>
<td>.83</td>
<td>.96</td>
</tr>
<tr>
<td>NFI</td>
<td>.86</td>
<td>.96</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.12</td>
<td>.07</td>
</tr>
</tbody>
</table>

Table 7.9
Path Coefficient Estimates of Structural Model

<table>
<thead>
<tr>
<th>Path</th>
<th>Composite model—3 behaviors: Estimate (t-value)</th>
<th>Composite model—2 behaviors: Estimate (t-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income availability $\rightarrow$ Willingness to spend money to save time</td>
<td>.36 (6.66*)</td>
<td>.36 (6.61*)</td>
</tr>
<tr>
<td>Pace of life $\rightarrow$ Willingness to spend money to save time</td>
<td>.22 (3.96*)</td>
<td>.23 (3.99*)</td>
</tr>
<tr>
<td>Attitude towards change $\rightarrow$ Willingness to spend money to save time</td>
<td>.37 (6.53*)</td>
<td>.37 (6.55*)</td>
</tr>
<tr>
<td>Attitude towards change $\rightarrow$ Attitude towards time related food purchase behavior</td>
<td>.17 (2.71*)</td>
<td>.16 (2.66*)</td>
</tr>
</tbody>
</table>
As in the case with the first model, the construct reliability for the two remaining behaviors was also low at .56. The coefficient reliability for the composite construct, attitude towards use of time related food purchase behaviors, is .94. As Table 7.9 shows, the overall fit for this test of the model is stronger than for the first composite model. All of the fit indices indicate adequate fit. Again, all of the paths of the model are significant at \( p<.05 \), providing further support of the hypotheses. While this analysis can only be considered exploratory and the model only combines two time related food purchase behaviors, it indicates preliminary support for a general model explaining the use of time related food purchase behaviors.

### PROFILE OF USERS OF TIME REDUCTION FOOD PURCHASE ACTIVITIES

The final phase of the study explored the demographic profile of the users of the time reduction food purchase choices. Multivariate analysis of variance (MANOVA) was used to assess the multivariate significance of each independent variable and to
protect against an inflated error rate. The three dependent variables used were, again, use of processed food, use of restaurants, and frequency of shopping trips. The five demographic variables examined were gender, age, education, personal income, and distance from the nearest food market. Initially a model was run to check for interactions among the variables. No significant interactions were found.

Table 7.10 summarizes the influence of each demographic variable on the set of dependent variables. The findings show that age, education, and income are related to the dependent variables. Gender and distance from the nearest market are not.

<table>
<thead>
<tr>
<th>Demographic variable</th>
<th>DF model</th>
<th>DF error</th>
<th>F value</th>
<th>P value</th>
<th>Effect size (Wilk’s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>6</td>
<td>319</td>
<td>1.77</td>
<td>.15</td>
<td>.02</td>
</tr>
<tr>
<td>Age</td>
<td>6</td>
<td>634</td>
<td>11.78</td>
<td>.00</td>
<td>.10</td>
</tr>
<tr>
<td>Education</td>
<td>6</td>
<td>640</td>
<td>12.68</td>
<td>.00</td>
<td>.11</td>
</tr>
<tr>
<td>Personal income</td>
<td>6</td>
<td>642</td>
<td>1.40</td>
<td>.00</td>
<td>.05</td>
</tr>
<tr>
<td>Distance from nearest food market</td>
<td>6</td>
<td>640</td>
<td>1.04</td>
<td>.40</td>
<td>.01</td>
</tr>
</tbody>
</table>

Table 7.11 displays the F values of the univariate results of the individual food purchase behaviors. Again, age, education, and personal income are statistically significant (p<.05).
Table 7.11  
Univariate F Values*  

<table>
<thead>
<tr>
<th>Demographic variable</th>
<th>Use of processed foods</th>
<th>Use of restaurants</th>
<th>Frequency of food shopping trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>2.02</td>
<td>.92</td>
<td>4.05</td>
</tr>
<tr>
<td>Age</td>
<td>16.62*</td>
<td>31.18*</td>
<td>6.72*</td>
</tr>
<tr>
<td>Education</td>
<td>16.70*</td>
<td>18.16*</td>
<td>21.00*</td>
</tr>
<tr>
<td>Personal income</td>
<td>23.20*</td>
<td>6.94*</td>
<td>6.24*</td>
</tr>
<tr>
<td>Distance from nearest food market</td>
<td>.97*</td>
<td>.01*</td>
<td>1.71*</td>
</tr>
</tbody>
</table>

*Significant at p<.05  

Table 7.12 presents the groups means and post hoc comparisons. All tests were conducted at p<.05.

Table 7.12  
Means Values and Duncan’s Multiple Range Test*  

<table>
<thead>
<tr>
<th>Demographic variable</th>
<th>n</th>
<th>Use of processed foods (# types on index of 20 items per 30 day period)</th>
<th>Use of restaurants (# per 30 day period)</th>
<th>Frequency of food shopping trips (trips per week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>327</td>
<td>4.85</td>
<td>2.73</td>
<td>5.36</td>
</tr>
<tr>
<td>Male</td>
<td>108</td>
<td>5.17a</td>
<td>3.76a</td>
<td>5.06a</td>
</tr>
<tr>
<td>Female</td>
<td>219</td>
<td>4.70a</td>
<td>2.21b</td>
<td>5.51a</td>
</tr>
<tr>
<td>Age</td>
<td>324</td>
<td>4.83</td>
<td>2.73</td>
<td>5.35</td>
</tr>
<tr>
<td>&lt;40</td>
<td>112</td>
<td>5.52a</td>
<td>3.72a</td>
<td>4.84a</td>
</tr>
<tr>
<td>40-50</td>
<td>108</td>
<td>5.18a</td>
<td>3.00a</td>
<td>5.25a</td>
</tr>
<tr>
<td>51 and over</td>
<td>104</td>
<td>3.74b</td>
<td>1.38b</td>
<td>6.00b</td>
</tr>
</tbody>
</table>

(table con’d.)  

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### Use of Processed Food

The three main effects that significantly influence the use of processed food by the primary food shopper are age, education, and personal income. As can be seen in Table 7.12, consumers who are 50 years old or less are significantly more likely to buy processed food than the older consumers (F=16.62; p<.00; 2,318). The consumers who have an education above the high school level are also more likely to buy processed food than the less-educated consumers (F=16.70; p<.00; 2,321). Finally, personal income is

1Non-matching subscripts indicate a significant difference between means, p<.05
2At the time of the survey U.S.$1= approximately 8 yuan.
related to the dependent variables, with consumers with higher incomes buying more processed food than the lower income consumers ($F=23.20; p<0.002, 323$). Gender and distance from the nearest food market are not related to the use of processed food.

**Use of Restaurants**

The three main effects that are significantly related to the use of restaurants are age, education, and personal income. Primary food shoppers who are less than age 50 eat in restaurants more frequently than those who were older than age 50 ($F=33.18; p<0.00; 2,318$). As shown in Table 7.12, consumers under age 40 had eaten in a restaurant an average of 3.72 times within the last 30 days, or about three times the 1.38 average of consumers over 50. Also, more educated consumers eat out more frequently than less educated consumers ($F=18.16; p<0.00; 2,321$). Consumers who had an education above the high school level had eaten out more than three times more than those with a junior high education or less (3.99 times per 30 day period versus 1.19 times). Finally, as would be expected, higher income consumers eat in restaurants more frequently than lower income consumers (4.72 per 30 day period for the higher income brackets versus 1.33 for the lower income brackets) ($F=6.94; p<0.00; 2,323$). Distance from the nearest food market was not related to use of restaurants. As Table 7.12 shows, the gender of the primary food shopper is related to use of restaurants with the univariate test, but not with the more conservative multivariate test.

**Frequency of Food Shopping Trips**

As is the case with the other two food purchase behaviors, the three demographic variables that are significantly related to frequency of food shopping trips are age,
education, and personal income. The primary food shoppers who are over age 50 conduct significantly more food shopping trips in a week than those who are less than 50 (F=6.72; p<.00; 2,318). The mean number of shopping trips per week for shoppers over age 50 is 6.00, versus 4.84 for those under age 40. Education is also significantly related to frequency of food shopping trips (F=18.16; p<.00; 2,321). Consumers with a junior high education or less shopped 6.19 times per week on average, versus 4.45 times per week for shoppers with an education above high school. Finally, personal income was strongly related to frequency of shopping trips with higher income consumers shopping less frequently than lower income consumers (F=6.24; p<.00, 2,323). Consumers with an income of less than 400 yuan per month shopped an average of 5.94 times a month versus 4.70 times per week for consumers with an average income of more than 800 yuan a month. Again, gender and distance from the nearest food market are not significantly related to the food purchase behaviors.

Summary of Multiple Analysis of Variance

The results of the MANOVA indicate that age, education, and personal income are significantly related to all three food purchase behaviors. Not surprising, the results show that the consumers who are younger, better educated, and have higher incomes are more likely to engage in time reduction food purchase behaviors. These findings are consistent with both the results of the qualitative analysis (see Chapter 4) and the theoretical framework for the study (see Chapter 2). It is somewhat surprising that food purchase behavior is not influenced by the distance from the nearest food market of the household. It would be intuitively expected that the consumers who live closer to a food
market will shop more frequently, which will affect use of processed foods and
restaurants. The possible reason for these null results is that, as discussed earlier in the
chapter, almost all consumers live close to a food market, so distance is not an important
factor affecting shopping. This statistic bears watching as the city of Nanjing begins to
regulate the food markets more closely and forces all markets to be enclosed (see
Chapter 4). In the wake of these new regulations, it is expected that Nanjing will have
fewer markets, and that the distance of households from food markets will become a
more important influence on shopping habits.

With all of the comparisons it is important to note that the surveys were
completed only by primary food shoppers. For example, while gender was insignificant
in the MANOVA in this survey, those results can not be extrapolated to the entire
population of Nanjing. It seems highly likely that male Nanjing residents eat in
restaurants more frequently than females, particularly given the importance of the
banquet in conducting business. The individuals who assume the role of primary food
shopper can be expected to be different than those who do not in a number of important
ways.

OVERVIEW OF FINDINGS

This chapter began with a summary of the main findings from the household
survey concerning behaviors related to food shopping, including gender of the primary
food shopper, role sharing, distance from nearest food market, average monthly food
budget, average number of shopping trips, use of processed foods, and frequency of
eating in restaurants. Next, the results of the tests of the structural model were
presented. The overall fit of the model was found to be adequate. The tests of the model also indicated support for six of the hypotheses, with the seventh hypothesis supported by two of the three tests. Next, to create a broader conceptual model, a composite model that combines the three food purchase behaviors, was explored. While the fit was found to be adequate, and all paths were significant, the model can only be considered exploratory, since an important requirement of structural equation modeling was violated. Finally, a comparison of means was made among five important demographic variables and the food purchase behaviors to create a profile of the user of time reduction food purchase behavior. The findings found that the primary food purchasers who buy more processed food, eat more frequently in restaurants, and conduct fewer food shopping trips tend to be younger, more educated, and higher income.
CHAPTER EIGHT

INTERPRETATIONS AND CONCLUSION

It would be difficult, if not impossible, to find a period and place in history where
the speed and breadth of consumption change would rival that which has been
experienced by urban China from 1978 through the 1990's. The importance and effects
of these remarkable changes are considerable and have implications beyond China’s
borders. First, no other nation has ever been as large as China, so the sheer number of
people affected by the economic growth, privatization of industries, and liberalization of
trade policy is in itself unprecedented. In addition, mass communication has allowed
huge numbers of people to be exposed instantly to alternative consumption choices, via
advertising, the media, and the entertainment industry. Added to that is the influence of
the well-leveraged transnational corporations, eager to introduce their wares to this huge
new market and willing to absorb losses at the outset in exchange for hopes of tapping
the long-term potential of this massive market for consumer goods. Finally, not to be
underestimated in influence, are the people representing the huge Chinese diaspora,
settled in Taiwan, Hong Kong, Singapore, the other East Asian countries, the U.S.,
Canada, and Australia, and, to lesser degrees, almost everywhere else in the world.
Many of these people serve as conduits of culture between their countries of residence
and mainland China.

This study has used a variety of techniques to investigate how primary food
shoppers in one city of China are altering their food purchase patterns in response to the
dizzying changes occurring in their society. The large representative household survey,
along with the observations, focus groups, interviews, and other methods of data collection, has provided a comprehensive examination of food purchase choice in Nanjing. First, the structural equation model developed through this study makes several contributions to our understanding of how consumption changes occur in growing economies. The model shows that not only are the traditional economic variables of time and money important predictors of use of time related products, but that attitude towards the concept of change in general is also an important influence. In addition, the model demonstrates that, while, as expected, consumers’ levels of income and pace of life are related to their use of time related products, the extent of use is mediated by willingness to use their capital to save time that otherwise would be used for food shopping and preparation. Altogether, the model represents a process that defines a consumer segment that is more willing to use time related products.

The findings from this study also reinforce a growing stream of research that finds that consumption choices are integrated tightly with a human landscape of self-definition, social relationships, rituals, and cultural values. For Nanjing food shoppers, frequent trips to the market to buy the freshest food available serve to reinforce the importance of family stability and ritual amidst the whirlwind of change. Food consumption activities are a potent means for individuals to maintain their self-identify and fortify their family ties as the society changes around them. But, more than that, food consumption is woven into a cultural ideology that is closely connected to life in Nanjing and creates an inertia that prescribes how food is bought and served. This cultural ideology is based on a rich foundation of history and tradition, and food
consumption changes that occur in future years will be ones that are compatible with the pervasive force of this aesthetic sensibility.

Prior to the field study, four types of theory were identified to inform the analysis. Throughout the study, the theoretical content was revisited to determine which sets of theory were most appropriate to analyze the consumption change occurring in Nanjing. Is the change strictly an economically rational act? Is it a socially constructed symbol with which people can express themselves and judge others? Is it a reaction to globalization? In fact, each set of theory had something to offer to the explanation of the adoption of the use of time reduction food purchase behaviors. The next sections discuss the contributions of each of the theories of consumption that have guided the study.

**Economic Efficiency Theory**

There are a number of different theories for examining consumption patterns. While many are useful, none is sufficient on its own. Economic efficiency theory has much to offer to explain changes in consumption choice (Becker 1965, 1996; Mincer 1960). As individuals’ abilities to generate income rise, their time becomes more valuable economically. As a consequence, production that formerly occurred in the household is delegated to outsiders in exchange for income.

Clearly, this is occurring in Nanjing today. Many of the busier and wealthier informants are outsourcing food production tasks to save time. In practical terms, this is accomplished by buying processed food, purchasing previously prepared products, and by eating in restaurants. These activities allow a reduction in food shopping trips. The
wealthiest consumers are eating in upscale restaurants and bringing home carry out food to supplement their diet. Since the more expensive restaurants usually claim to serve only the freshest food, this allows higher income customers to satisfy their preferences for fresh, nutritious food, while saving food shopping and preparation time. The lower income consumers, on the other hand, simply cannot afford to eat in restaurants or purchase processed food, and are unable to adopt these practices at this time. Middle income consumers are slowly increasing use of processed food and restaurants, and, as income continues to rise, can be expected to be less resistant to their use. In short, supply and demand and utility maximization, while not able to explain all food consumption decisions, can provide complete explanation for a few choices, and partial explanation for almost all choices.

Social Communication Theory

The study also establishes that investigating the socially embedded nature of consumption can add a great deal of insight to consumption choice. This analysis show clearly that food choices and the activities related to those choices serve the purpose of conveying information to the purchasers and others about who they are (Douglas and Isherwood 1978; McCracken 1989). The priority that most primary food shoppers in Nanjing give to pleasing and nurturing their family members is expressed through food shopping activities, consistent with what DeVault (1991) calls “caring work.” As Otnes, Lowrey, and Kim (1993) could describe gift givers through social roles, so food purchasers could be described by roles, such as “the pleaser,” “the bargainer,” and “the knowledgeable shopper.” The market is indeed segmented and product promotion
which recognizes this will be most successful. Certainly, the concern with providing a
variety of foods, the reluctance to serve leftovers, and the resistance to using the
refrigerator is tied to the important role of nurturer. An interesting finding related to
this point is that the status hierarchy communicated through food choices and the quality
and size of food portions is not consistent with Western studies in which the men's
preferences are said to dominate (Charles and Kerr 1988; DeVault 1991; McIntosh and
Zey 1989). As stated in Chapter 4, in urban China in the 1990's it is the child of the
family whose preferences and needs dominate food selection, both inside and outside
the home.

An important part of the identity of many consumers, particularly older
consumers who have survived several decades of hardship, is the desire to do things
themselves. These consumers want to control the process of food production for their
families to the greatest extent possible. This need for control is closely tied to the desire
to buy the freshest food, the concern for nutrition, and the worries about food safety.
Even when these consumers can afford to use processed foods and restaurants, they
express reluctance at their use. They simply are unwilling to pay someone else to do
something that they can do better themselves.

Another related theme is the concern for paying a fair price. Since prices were
set by the state until 1979, there is still a deep distrust of the private entrepreneurs who
offer products and services. Consumers frequently express anxiety that they will be
cheated. As such, consumers are reluctant to pay for services provided by others, for
fear that they are being overcharged for a frivolous service.
Less useful in understanding food purchase patterns is analyzing how the consumption choices define and reinforce social status (Bourdieu 1984). Higher income shoppers are less restricted in food choice than the lower income shoppers, and more affluent households tend to buy more meat and more processed food items. There is no evidence, however, that these purchases are intended, consciously or unconsciously, to double as status markers. Perhaps, given the rapid emergence of a more affluent class of consumers, conspicuous consumption does not emerge at the family table, but appears in other food consumption activities that take place outside of the home, such as banquets and food gifts. Still, given the large proportion of consumers' time and money directed toward household food consumption activities, it is a notable finding that a whole genre of social theories that emphasize “conspicuous consumption,” (Vleben [1899] 1992), “cultural capital” (Bourdieu 1984), and fashion (Simmel [1900] 1978) is of little use in understanding the family meal.

Cultural Ideology

As important as the theories related to economic efficiency and social communication are in explaining changing food consumption choices in urban China in the 1990's, these theories by themselves still leave a gap in explanation of behavior. Despite busier lives, higher incomes, an abundance of convenience foods, and near total penetration of refrigerators, the average primary food shopper in Nanjing continues to shop for food daily, spending an average of an hour shopping, and the average of another hour and a half preparing the food (Fu 1996). To outsiders, this amount of time and labor spent on food shopping may seem excessive, and it is certainly beyond what
can be explained through utility maximization theory or social communication theories. Surely, the primary food shoppers of families can still effectively communicate their competence as a cook and their love for the family, while making fewer shopping trips a week or cooking fewer dishes.

These activities can only be understood in terms of an aesthetic sensibility related to food that pervades life in China, and, according to evidence (Chong 1993, Lo 1987), has pervaded life in China for centuries. It is a collection of attitudes, roles, and rituals that define the activities related to food consumption. Hendry (1989) noted a similar phenomenon in his study of the art of wrapping presents in Japan. He concluded that wrapping presents was reflective of more than reinforcing relationships—rather it was about the reinforcement of an art, inextricably woven within the culture of Japan. Similarly, shopping daily for the freshest foods goes beyond reinforcing relationships and pinching pennies. It is more than an economic sensibility, more than a habit, and more than a norm. It is a cultural ideology that is inextricably connected to daily life in China. As such, while this cultural ideology encompasses economic and social theories that address consumption patterns, it is more than the sum of their parts. Mixed within these other causal forces are behaviors stimulating what might be called “cultural inertia.” This cultural inertia would appear to be relatively resistant to counter forces, at least at the present time.

That is not to say that the behavior reflecting this cultural ideology cannot, and will not, change. Reflected in the informants’ comments presented in Chapter 4, it is clear that in a relatively short period of time, some Nanjing residents have begun to buy
more convenience foods and eat more frequently in restaurants, and decrease the
frequency of shopping trips. But given the long tradition of careful, lengthy food
preparation in China, these changes will occur slowly. Changes in consumption behavior
that are consonant with the prevailing cultural ideology are likely to be adopted quicker.

The importance of cultural ideology in affecting consumption was not only
shown through the observations and interviews with food shoppers, but through the
structural model presented in Chapter 7. The model demonstrates empirically that, along
with income and pace of life, consumers' attitudes toward change is an important
predictor of attitudes toward the use of time reduction food choices. Consumers with a
more positive attitude towards change, along with the economic incentive, will be more
likely to adopt new behaviors.

**Globalization and Urban China**

The globalization of less affluent nations, in conjunction with growths in
consumer spending, has been equated with exploitation, materialism, selfishness,
narcissism, cultural genocide, status seeking, alienation, dissatisfaction, and
dehumanization (see, for example, Joy and Wallendorf 1996; Sherry 1987; Joy and Ross
1989 for pessimistic interpretations of the effects of globalization). Others have
described the process of globalization as leading to a decline in ethnocentrism, attended
by a rise in nationalism and a reinforcement of important cultural values (see, for
example, Geertz 1993, Miller 1995). A third response to globalization is the
phenomenon called "creolization" in which cultures are blended (Ger and Belk 1996;
The opening of China's economy to international influences in 1979 has dramatically altered the retail environment and created distinct changes in food consumption patterns. More than one third of the survey respondents had eaten at a KFC in the previous month. Children can be seen at public parks with a bag of Cheeto's in one hand, and a can of Sprite in the other hand. Even at traditional food markets, it is possible to see 30 kilogram boxes of frozen Tyson chicken legs. Still, the adoption of these products hardly seems to constitute cultural genocide. While global food products and services have become part of the new leisure activities in which Chinese citizens are participating, including family outings, tourism, and entertainment outside the home, they are not changing the nature and basic composition of the family meals. Some informants stated that they sometimes incorporated particular imported products into daily meals, such as President Instant Noodles (from Taiwan) and Kraft's Tang orange breakfast drink, but not in a way that decreased the number of dishes served or altered the basic rituals. While some informants are curious about imported products and enjoy being exposed to new choices, the new options are being adopted in ways that do not undermine the prevailing cultural ideology of food consumption. Global influences are actively affecting the consumption environment, but the basic rituals and roles of food consumption remain intact. As such, while bi-direction cultural flow is occurring to some extent between China and the rest of the world, "creolization" will be not be occurring for a long time. The best way to describe the process of globalization as it pertains to household food consumption is judicious adoption in conformity with prevailing patterns.
MANAGERIAL IMPLICATIONS

A number of important managerial implications are suggested by this study, particularly for corporations marketing food-related products to China, or other Eastern and Southeastern nations which have been highly influenced by the Chinese culture. The continual and durable cultural ideology that pervades daily life raises issues regarding the important managerial issue of when to standardize and when to customize (Friberg 1989; Howard and Mayo 1988; Whitelock and Chung 1989). These findings suggest that analysis of standard demographic and economic information for a region of interest, while a necessary first step for determining if the population has a sufficient number of consumers who meet the economic and demographic characteristics compatible with the product, is not sufficient. Marketers must look beyond socio-demographic information and conduct comprehensive studies to learn what products and services are theoretically compatible with the cultural ideology of the region. Qualitative studies, including focus groups and structured observations, will be most effective for these kinds of investigations. While the potential market in China is large, it is also very competitive, and corporations from other nations, such as Korea, Japan, and Germany, are making long term commitments to conduct business in China. Knowing the strength and depth of cultural norms will aid in the creation of an effective marketing mix and limit mistakes at the product introduction stage.

In addition to this general recommendation for introducing new products to growing economies, a number of the results related to the attributes valued by Nanjing consumers permit some more specific recommendations.
Sanitation

Nanjing consumers have extreme anxiety about the safety of the food they buy, particularly processed and restaurant foods. These fears are not unfounded. Chinese consumers are regularly warned by the media about factories and restaurants fined or closed due to unsanitary conditions. Part of the success of McDonald’s in urban China has been attributed to consumers’ beliefs that they can trust the sanitation in these fast food restaurants (Yan 1997), and indeed even the most casual observer can see that standards are different in these franchises than in many other restaurants in China. Whereas Americans do not generally worry about the sanitation of packaged foods, taking it for granted, some Chinese avoid packaged foods altogether to prevent food poisonings. Thus, packaged foods and restaurants that can establish a reputation for good hygiene will be attractive to Chinese consumers. Certainly, some consumers will be willing to pay extra to be certain that the products they are purchasing are safe.

This has implications both for manufacturing and marketing. The high concern for sanitation will lead to the reward of food suppliers who take the time to establish brand loyalty cultivated through advertising which emphasizes sanitation. For international firms, this may caution against joint ventures or mergers with established Chinese brand name product manufacturers. One idea to address Chinese consumers’ concerns about food safety is for a nation to conduct a comprehensive campaign, boasting of the safety of all the nations’ food products, and stressing the many procedures in place to ensure that safety. A nation that became well known for the sanitation of food products might be able to boost exports to China in that entire
category. At the least, a claim on a food package to be “prepared under the most sanitary conditions” might effectively boost sales of the product (assuming the claim is true).

Green Foods

Related to the concerns about sanitation are the serious worries about pesticides on fresh produce, reinforced by accounts in the media of Chinese citizens who are sickened or even killed from ingesting the pesticide on their foods. A particularly poignant example of this concern is the Nanjing man who prefers to buy greens with worms on them, because he then knows that they have been grown with few pesticides. Part of the cause of the lengthy food preparation by households is the belief that all vegetables should be washed thoroughly three times to properly remove pesticides.

In response to these worries, several major universities in China, including Nanjing Agricultural University and Beijing Agricultural University, have established green foods research centers to study how to produce high yield resistant varieties with fewer pesticides. Green foods, i.e. food grown with no pesticides, have also begun to be offered sparingly in urban markets. Fresh products are but one category of such food. Processed foods, such as noodles, teas, dried fruits, and condiments, are now being produced. In some cases, Western firms already produce such “natural” products. It is clear that these types of products would be received with considerable enthusiasm if marketed properly, although it is not clear how much extra purchasers are willing to spend to buy safer products. It is also questionable how quickly cooks will abandon the habit of washing vegetables three times, even when told it is not necessary. It is
expected that these products will need to be on the market for a period of time before people begin to trust them enough to actually decrease the time spent cleaning vegetables. Of course, domestic producers who can offer food products grown with fewer or no pesticides will have an attractive product if they can sell it at an acceptable price and are able to establish that “organic” claims are true. And, any food products exported to China that are grown without pesticides should promote that attribute, and label the product correspondingly.

Variety

This study also supports earlier findings (Anderson 1988; Chang 1977), that claim that nutrition is very important to consumers in China. Nutrition is generally linked closely with the freshness of food products, an attribute with which few foreign producers can compete with domestic producers. However, variety is also closely tied to nutrition. The variety afforded by adding foreign foods to a diet is an attribute that can and should be promoted by marketers. Publicizing the specific vitamins provided by the food items will increase the value of the product. Products which are “enhanced” or “enriched” with vitamins and/or minerals may well achieve greater market share than those which are not. Foreign restaurant chains or packaged food manufacturers may find that advertising which emphasizes the exoticness or the novelty of their food may be effective.

Packaging

Food products are a popular gift item for the Chinese (Yan 1996), and imported foods are particularly favored. The more upscale supermarkets in Chinese cities often
sell baskets of imported foods, including items such as Quaker Oats Oatmeal and Maxwell House Instant Coffee, that the employees have put together themselves. Some of the more popular gift items are those that are enclosed in decorative packaging. The packaging can be extravagantly decorated, or it might be functional, such as a tin container or a child's toy. These food products are often seen displayed, unwrapped, in homes. Part of the allure of these gifts seems to be their novelty, so products with packaging that changes frequently should be more successful.

Marketers who sell non-gift items should consider placing their product in transparent packaging if possible. A number of informants placed partial blame for their reluctance to buy packaged products on the phenomenon that you cannot see the product until you remove it from the package. Packaging that is at least partially transparent should generate more trust in consumers.

Children

The one-child-per-family rule in urban areas has led to a generation of pampered children, to put it mildly. Parents appear to spend a large proportion of their incomes on their only children— to clothe them, educate them, entertain them, and, of course, to feed them. As stated previously, the preferences of the child of the family are accorded the highest priority when making food choices, and the best quality food is given to the child. This leads to the recommendation to marketers to target their marketing mix toward children. A warning is that many corporations active in China are already targeting children. Most commercials for food products feature smiling children enjoying the advertised items. Both KFC and McDonald's have intense campaigns in

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China to attract children. On the other hand, promotions toward children seem to be effective. Families with young children are heavy users of KFC and McDonald’s. Parents who would not think of spending money on themselves for wasteful products will buy packaged foods, such as snack foods and soft drinks, for their children. In addition, these children are being socialized into the use of restaurants and packaged foods and as adults are likely to be less resistant to their use than their parents.

**Segmentation**

The results of the multiple analysis of variance (MANOVA) procedures performed in this study also have implications for target marketing. Clearly, the younger, better educated, higher income consumers are the individuals who are most likely to adopt time reduction food purchase behaviors. This finding is consistent with the structural model, since youth and education are linked to willingness to change (Griswold 1994). Advertising and promotions might be best directed toward events and media that attract younger consumers.

**LIMITATIONS OF THE STUDY AND FUTURE RESEARCH**

The limitations of this study are related to the respondent characteristics, product category, and theory content. These limitations lead to a number of avenues for future research.

First, while this study involved a close examination of the political, economic, social, and cultural environment in which the exchange activities occur between retailers and consumers, other environmental factors that have a close relationship with food consumption were omitted. This list includes agricultural production, distribution
infrastructure, food production, body images, and nutrition. In particular, the link between state policy and the consumer is worthy of further exploration, not only in China, but throughout the world. State policy in China is continually in flux and quickly and fundamentally alters consumption patterns in its wake. The example of state influence on consumption patterns cited in a previous chapter was the 1996 ruling in Nanjing that all open-air food markets must be enclosed within three years. This well-intended law is likely to have many unforeseen effects on food consumption patterns, as well as the expected improvement in levels of sanitation. Possible effects include the composition of retailers, the regulation of retailers, the types of food offerings, the storage of food, food pricing, and frequency of food shopping trips. While the idea that government rulings affect individual consumption choice in a Communist country seems fairly evident, it should be pointed out that state policy, or lack of, is strongly influential, whatever type of government is in charge. For example, in the U.S., government policies affect food consumption options with property laws, price fixing laws, nutrition labeling rules, sanitation codes, credit laws, trade policies, and through many other laws, policies, and standards (see DeGrazia 1996). The state-consumer relationship is closely linked to quality of life, and, as such, merits further study.

This study was conducted in one city of an enormous country. While Nanjing is representative of many large cities that are experiencing change in China, as always, generalizing the research findings beyond Nanjing without verification should be done only with caution. While the structural equation model is meant to predict use of time
related food purchase activities in any region experiencing rapid change, it should be
tested in other regions with rapidly growing economies.

By self-definition, all informants, focus group respondents, and survey
respondents in this study are primary food purchasers. That is, all respondents are
responsible for the majority of food shopping for their families. This group was selected
since they are the experts on what their family eats, how it has changed in recent years,
where the food is bought, and how it is bought. In other words, primary food purchasers
are knowledgeable about all major food consumption decisions. This group of
individuals quite likely has a very different relationship with food than the other group of
individuals who consume what is purchased for them. As stated in Chapter 4, the
primary food purchasers frame their food consumption activities in terms of the members
of the household for whom they are buying the food. Food represents something they
buy for someone else. This reality leads to the question of what meanings the food
represent for the recipients of this care. What is the nature of the relationship of these
individuals with food? Do people who are not directly involved in food shopping and
cooking have similar attitudes and values towards food consumption activities? How do
these individuals interpret the role of the people who conduct food shopping and
cooking on their behalf? These issues lie beyond the scope of this research, but they are
interesting and would be rewarding avenues for future work.

Related to such questions are also issues of gender (Costa 1994). American
studies have emphasized the connection between the wife-mother nurturing role and
food consumption activities (see DeVault 1991; Dichter 1960; Strasser 1982). In this
study of Chinese primary food purchasers, represented by a group that was about two-thirds female, no qualitative differences could be found between men and women in so far as their roles as nurturers. In short, men and women were equally nurturing. Does this finding mean that males and females in Nanjing are uniformly nurturing, whether they are involved in food consumption activities or not? Or is there a self-selection process involved in which individuals who are more nurturing by nature choose to buy and cook food? Or do the activities involved in food consumption tend to enhance the nurturing property in individuals?

Another future research direction relates to the use of consumption activities as status markers (Bourdieu 1984). With the growth of income in China has come increased income stratification. Will this stratification result in consumption practices that define and reinforce distinctive classes? As stated earlier, no evidence of the use of food as a status marker was seen in this study of family food consumption. This is consistent with a study of food in Thailand, in which Van Esterick (1992) found little distinction between the ingredients and dishes of the food eaten by royalty and commoners. On the other hand, the Thai study did find distinct differences in the clothing and speech of different status groups. As class differences appear, Chinese might mark these differences via other consumption categories. In addition, food consumption activities outside the realm of this study, particularly food gifts and banquets, might be used to define differences in class status.

Finally, since the major survey conducted in this study is fairly representative of Nanjing, the survey can be considered the first stage of a programmatic study. The data
in the survey represent a number of important food related categories, including use of processed food, use of domestic workers, penetration of food related appliances, use of restaurants, time and frequency of food shopping, role sharing, food budgets, and use of food retailers. Re-administering the survey at a later date should provide further information about changes in food consumption patterns. Subsequent studies should aim to provide a more generalizable analysis of the use of time reduction food purchase choices. This could be accomplished by examining other related behaviors, such as the use of time saving food appliances and time spent in food preparation. Developing a general scale that measures attitude toward the use of food reduction food purchase would be useful.

China’s leadership in the post-Deng era has confirmed the government’s continued commitment to economic reform. Presumably, the result will be greater urban incomes and an expanding market. Given this scenario, the nation continues to be a fertile area for the study of consumption change. This study of changing tastes underscores the complexity of the many influences aiding and inhibiting the adoption of new choices in this changing nation.
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APPENDICES
Appendix 1
Food Shopping and Preparation Observation Guide

I. Respondents characteristics:
   Age
   Sex
   Profession
   Income
   Household members—ages and relationships
   Hobbies

II. Food shopping observations:
   Date
   Time started
   Time completed
   All retail establishments patronized
   Type of transportation used
   Distance of shopping area from home
   Food items purchase (description, size, cost)
   Amount of deliberation over choice
   Negotiation strategies
   Social aspects to shopping (talking to friends, relationships with vendors, etc.)

III. Types of food shopping queries:
   Why did you choose that and not that?
   Why did you come here?
   Why did you choose that vendor?
   How do you feel about food shopping?

IV. Home observations:
   Size of residence
   Size of kitchen
   Amount of food storage space
   Items stored/ items used immediately
   Contents of refrigerator and freezer (e.g. any leftovers?)
   Food items in storage
   Items stored in bulk

V. Food preparation observations:
   Use of fresh/ processed foods
   Amount of time spent in food preparation
   Role sharing
   Final dishes
Appendix 2
Food Retail Manager Interview Guide

I. Description:
Type of retailer
State, private, or self-employed
Product offerings
Retail location
Retail space
Type of pricing

II. Retailer business
Tell me about your business? How long have you been in business? What products do you sell the most? How much do you sell daily? How many days a week do you work? How many hours a day do you work? How long have you been in business? What is your gross income? What is your net income?

III. Macro-environment
What environmental elements have affected your business? How? How about the political environment? What social changes have affected your business? What other changes have affected your business? What changes do you anticipate in the next few years?

IV. Retail environment
What other retail outlets also sell what you do? Who do you consider your competition? How has the retail environment changed? How do you expect the retail environment to change in the future? What product changes have occurred recently? What food products will experience growth in the future?

V. Consumer environment
Describe your customers. Do you have regular customers? What methods do you use to attract customers? Why do customers come to you? What transportation do your customers use when they shop? How has your customers’ lifestyles changed recently?
Appendix 3
Focus Group Topic Questions

I. Introduction
   A. Introduction of co-moderators
   B. Brief summary of project
   C. Introduction of respondents

II. Attitudes toward change
   In general, how do you feel about change? Is change always good, or always bad? Has the lifestyle in Nanjing changed in the last five years? How? Is that good or bad?

III. Lifestyle changes
   How has your life changed in the last five years? Is your life busier? Does your household have more discretionary income? Has privatization affected you in any way?

IV. Time
   How do you spend your time? What things do you do during the week? What are your hobbies? What activities take a great deal of your time?

V. Attitudes toward time reduction behavior
   How do you save time? How do you save labor? Are you willing to use your money to “buy” time and labor?

VI. Retail environment
   How has the retail environment changed in Nanjing the last five years? Are there more types of stores? Have the retail offerings changed? Is customer service different?

VII. Food retail environment
   Has the food retail environment changed in Nanjing in the last few years? Are there more types of stores? Are the food products different? Is customer service different?

VIII. Food purchase patterns
   Tell me about the food purchase behavior of your household. Which members of your family help you buy food? With whom do you shop for food? Who tells you what to buy? Where do you shop for food? How do you get there? How far is the place from your home? How often do you shop? How much food do you buy in one trip?
## Appendix 4

### Inventories of Food Items Stored in Informants’ Homes

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<th>#</th>
<th>Refrigerator</th>
<th>Freezer</th>
<th>Storage areas</th>
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<tbody>
<tr>
<td>1</td>
<td>(No refrigerator)</td>
<td>(No freezer)</td>
<td>Condiments and spices&lt;br&gt;One bowl cooked rice&lt;br&gt;Half used bag of soybean milk powder&lt;br&gt;Two heads of cabbage&lt;br&gt;Two tomatoes&lt;br&gt;Red peppers&lt;br&gt;A potato</td>
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<td>2</td>
<td>Medicine&lt;br&gt;Beer&lt;br&gt;Milk&lt;br&gt;Eggs&lt;br&gt;5 packages of wonton wrappers (gift from relative)&lt;br&gt;Steamed bread&lt;br&gt;Tofu&lt;br&gt;Wood ear&lt;br&gt;Beef&lt;br&gt;Leftover soup</td>
<td>Pork&lt;br&gt;Beef</td>
<td>Condiments and spices&lt;br&gt;Five bottles of oil (gift from work unit)&lt;br&gt;Rice noodles&lt;br&gt;Dried mushrooms&lt;br&gt;Tofu balls&lt;br&gt;Gift package of coffee and cream&lt;br&gt;Honey</td>
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<tr>
<td>3</td>
<td>Eggs&lt;br&gt;One bottle beer&lt;br&gt;A package of yeast</td>
<td>Many small packages of pork (altogether about 15 pounds)&lt;br&gt;Beans&lt;br&gt;Noodles</td>
<td>Condiments and spices&lt;br&gt;Two cabbages&lt;br&gt;Gift package of dried plums</td>
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<td>4</td>
<td>Several packages of dried shrimp (a gift)&lt;br&gt;Fruit juice</td>
<td>Pork</td>
<td>Condiments and spices&lt;br&gt;Gift packages of candy&lt;br&gt;Jars of pickled vegetables&lt;br&gt;Dried mushrooms&lt;br&gt;Tea&lt;br&gt;Liquor&lt;br&gt;Cans of fruit juice powder&lt;br&gt;Gift package of coffee and cream</td>
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<th>#</th>
<th>Refrigerator</th>
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<td>5</td>
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<td>Condiments and spices</td>
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<td>Corn meal</td>
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<td>Rice noodles</td>
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<td>Wheat noodles</td>
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<td>Dried fruit (several kinds)</td>
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<td>Dried mushrooms</td>
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<td>6</td>
<td>Coconut juice</td>
<td>Pork</td>
<td>Condiments and spices</td>
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<td>Sprite</td>
<td>Fish</td>
<td>Gift packages of candy</td>
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<td>A leftover dish</td>
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<td>Dried fruits</td>
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<td></td>
<td>Packaged pickled vegetables</td>
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<td>Medicinal herbs</td>
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<td>Vacuum sealed chicken</td>
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<td>7</td>
<td>Dried shrimp</td>
<td>Steamed bread</td>
<td>Condiments and spices</td>
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<td></td>
<td>Packaged pickled vegetables</td>
<td>Baozi (dumplings)</td>
<td>Rice noodles</td>
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<td></td>
<td>A jar of spicy sauce</td>
<td>Chicken breast</td>
<td>Dried mushrooms</td>
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<td>Eggs</td>
<td>Fish</td>
<td>Gift boxes of candy</td>
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<td>Salted snacks</td>
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<td>Soft drinks</td>
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<td>Assortment of liquor</td>
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<td>Several bottles of wine</td>
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<td>8</td>
<td>Eggs</td>
<td>Pork</td>
<td>Condiments and spices</td>
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<td>Chicken</td>
<td>Fish</td>
<td>Soft drinks</td>
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<td></td>
<td>Pork</td>
<td>Jiaozi (dumplings)</td>
<td>Assortment of liquor</td>
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<td>Fish</td>
<td>Chocolates</td>
<td>Cookies</td>
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<td>Ice cream</td>
<td>Gift boxes of candy</td>
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<tr>
<td>9</td>
<td>Eggs</td>
<td>Empty</td>
<td>Condiments and spices</td>
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<td></td>
<td>Apples</td>
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<tr>
<td>10</td>
<td>Eggs</td>
<td>(Omitted)</td>
<td>Condiments and spices</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Potatoes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sweet potatoes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cabbage</td>
</tr>
</tbody>
</table>

(table con’d.)
<table>
<thead>
<tr>
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<th>Refrigerator</th>
<th>Freezer</th>
<th>Storage areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Royal jelly (a vitamin)</td>
<td>Pork</td>
<td>Condiments and spices</td>
</tr>
<tr>
<td></td>
<td>Lard</td>
<td>Fish</td>
<td>Packaged pickled vegetables</td>
</tr>
<tr>
<td></td>
<td>Pork</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eggs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>One can Sprite</td>
<td>Pork</td>
<td>One small bag rice chips</td>
</tr>
<tr>
<td></td>
<td>Wrapped packages of cabbage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Cooking sauces</td>
<td>Pork</td>
<td>Condiments and spices</td>
</tr>
<tr>
<td></td>
<td>Eggs</td>
<td>Chicken</td>
<td>Small packages of cookies and crackers</td>
</tr>
<tr>
<td></td>
<td>Noodles</td>
<td></td>
<td>Ceramic pot of salted cabbage</td>
</tr>
<tr>
<td></td>
<td>Pork</td>
<td></td>
<td>Apples</td>
</tr>
<tr>
<td></td>
<td>Carrots</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green onions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Two leftover dishes</td>
<td>Pork</td>
<td>Condiments and spices</td>
</tr>
<tr>
<td></td>
<td>Celery</td>
<td>Fish</td>
<td>Soybean milk powder</td>
</tr>
<tr>
<td></td>
<td>Eggs</td>
<td>Ice cubes</td>
<td>Sunflower seeds</td>
</tr>
<tr>
<td></td>
<td>Packaged pickles</td>
<td></td>
<td>Oatmeal</td>
</tr>
<tr>
<td></td>
<td>Cooking sauces</td>
<td></td>
<td>Instant hot cereal</td>
</tr>
<tr>
<td></td>
<td>Bread</td>
<td></td>
<td>Dried meat</td>
</tr>
<tr>
<td></td>
<td>Butter</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Processed cheese squares</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Apples</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Sauces</td>
<td>Beef</td>
<td>(Not inventoried)</td>
</tr>
<tr>
<td></td>
<td>Milk</td>
<td>Fish</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Canned pork (a gift)</td>
<td>Pork</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eggs</td>
<td>Soybeans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tea</td>
<td>Fish balls</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wonton wrappers</td>
<td>Chicken</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dried shrimp</td>
<td>Ground pork</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lotus seed</td>
<td>Jiaozi</td>
<td>Yuanxiao</td>
</tr>
<tr>
<td></td>
<td>Dog meat</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Milk powder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Pork</td>
<td>Pork</td>
<td>Drink powder</td>
</tr>
<tr>
<td></td>
<td>Sauces</td>
<td>Fish</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Smoked fish</td>
<td></td>
<td></td>
</tr>
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</table>

(table con’d.)
<table>
<thead>
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<th>#</th>
<th>Refrigerator</th>
<th>Freezer</th>
<th>Storage areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Salted meat</td>
<td>(Either empty or not</td>
<td>Apples</td>
</tr>
<tr>
<td></td>
<td>Salted fish</td>
<td>inventoried)</td>
<td>Tea</td>
</tr>
<tr>
<td></td>
<td>Salted pig ears</td>
<td></td>
<td>Oranges</td>
</tr>
<tr>
<td></td>
<td>Chicken legs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hamburger</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sauces</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spices</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eggs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tea</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sesame oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Leftover dishes</td>
<td>Jiaozi (dumplings)</td>
<td>Condiments and spices</td>
</tr>
<tr>
<td></td>
<td>Corn powder</td>
<td>Pork</td>
<td>Fruit drink powder</td>
</tr>
<tr>
<td></td>
<td>Tofu</td>
<td>Ground pork</td>
<td>A fish on a hook</td>
</tr>
<tr>
<td></td>
<td>Cleaned pea leaves</td>
<td>Chicken legs</td>
<td>Eggplant</td>
</tr>
<tr>
<td></td>
<td>Mushrooms</td>
<td>Chicken breasts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tomato</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shrimp</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jam</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gingkos</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pickles</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ketchup</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Some medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Eggs</td>
<td>Fish</td>
<td>Condiments and spices</td>
</tr>
<tr>
<td></td>
<td>One bottle Coke</td>
<td>Pork</td>
<td>Fruit drink powder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tea</td>
</tr>
<tr>
<td>20</td>
<td>Cooking sauces</td>
<td>Fish</td>
<td>(Omitted)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pork</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 5
Reliabilities of Scales and Translated Scale Items

Pace of life (.90)
I have a lot of free time.
I am quite busy.
I lead a fast life.
My time schedule is very tight.

Attitude towards change (.70)
The traditional way of doing things is usually the best.
I enjoy trying new things.
I like to do things the old way.
Change is good.
I often try new things.
I normally prefer doing things the old way.

Willingness to spend money to save time (.82)
I am willing to spend money to save myself time.
I am willing to spend money on products that save me money.
I do not use money to save time—I’d rather do everything myself.
I like to do everything myself to save money.
When you do things yourself, you can save a lot of money.

Attitude towards use of restaurants (.81)
I like to go out to eat.
We like to entertain guests in restaurants.
We like to entertain guests at home.
Restaurant are dirty, expensive, and bad tasting.
I think eating out is nice.
I do not like to go out and eat.

Attitude towards processed food (.86)
I like to buy processed foods for the sake of convenience.
Processed food does not taste good.
I’m now willing to buy processed food.
I don’t like to buy processed food, because I’m not sure it’s clean.
I almost never buy processed food.
The taste of processed food is not good.

Attitude towards time spent food shopping (.80)
When I go to the market, I like to buy a lot of food at one time to save trips.
I go to the market to buy food almost every day.
I prefer to go to the market every day.
Appendix 6
Response Form

Dear surveyors:
Please complete the information on this table for every household that you contact.
Thank you.

Surveyor name ___________  Zip code area ________________

<table>
<thead>
<tr>
<th>Household #</th>
<th>Address</th>
<th>Did the household complete a questionnaire? (yes or no)</th>
<th>If yes, what is the questionnaire number?</th>
<th>If no, why didn't the household participate?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1) No one was home</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>2) The person who does most of the food</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>shopping for the family wasn't home</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>3) Refused to participate</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>4) Other (please write the reason)</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>10</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
请调查人员填写：
调查人员姓名 ______________________
调查编号 ______________________
调查区域名称 ______________________
被调查家庭地址 ______________________
调查日期 ______________________
调查时间 ______________________
本表是家庭食品购买调查表，由家庭食品的主要购买者填写。如果您承担了家庭中一半以上的食品购买，请填写下列表格。有关内容我们将严格保密，非常感谢您的帮助。

1. 请填写此表，介绍您和您家庭居住的每一位成员。请把近30天内在您家庭住满15天以上的人也列入表内。

<table>
<thead>
<tr>
<th>编号</th>
<th>关系：</th>
<th>性别：</th>
<th>年龄：</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. 你自己</td>
<td>1. 男</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2. 爱人</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3. 儿子(女儿)或女婿、媳妇</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4. (外)孙子、(外)孙女</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5. 父母或爱人的父母</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6. 祖父母或爱人的祖父母</td>
<td>2. 女</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7. 兄弟姐妹或爱人的兄弟姐妹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8. 其他(请注明关系)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
II. 请回答下列有关食品购买方式的问题:

1. 您家离您所去的最近的一家菜场有多远？
   ___________ 米

2. 您个人平均每周用于买菜的时间有多少？
   ___________ 小时/周

3. 除您以外的其他家庭成员平均每周用于买菜的时间加在一起有多少？
   ___________ 小时/周

4. 您平均每周买几次菜？
   ___________ 次/周

5. 除您以外的所有其他家庭成员平均每周总共买几次菜？
   ___________ 次/周

6. 在最近 30 天里，您有没有花钱请人替你买过菜或做过饭？
   1) ______ 有  2) ______ 没有

7. 你们家平均每月用于食品消费的开销有多少？ ___________ 元/月

III. 在最近 30 天里，您在下述地方分别就过几次餐？

1. 饭店       ______ 次  2. 全套服务的高级餐厅 ______ 次

3. 大排档     ______ 次  4. 肯德基/炸鸡 ______ 次

5. 麦当劳     ______ 次  6. 其他西餐馆       ______ 次

7. 中式快餐店 ______ 次  8. 其他餐馆         ______ 次

IV. 在最近 30 天里，您在下列地方购买食品各有多少次？

1. 菜市场     ______ 次  2. 个体粮店       ______ 次

3. 国营粮店   ______ 次  4. 超级市场       ______ 次

5. 国营商店   ______ 次  6. 个体商店       ______ 次

7. 国营卤菜店 ______ 次  8. 个体卤菜店      ______ 次

9. 糕点屋     ______ 次  10. 其 他        ______ 次
V. 在下列食品中用“√”标出您近 30 天里至少买过一次的食品。

熟食:
1. ______ 盐水鸭、烧(烤)鸭
2. ______ 干切牛肉

罐头食品:
1. ______ 鱼罐头
2. ______ 饮料罐头
3. ______ 果汁罐头
4. ______ 水果罐头
5. ______ 八宝粥罐头

袋装食品:
1. ______ 方便面
2. ______ 即食早餐
3. ______ 冷食
4. ______ 奶粉
5. ______ 冻饺子或馄饨
6. ______ 豆腐干

烧煮好的食品:
1. ______ 饺子
2. ______ 馄饨
3. ______ 包子
4. ______ 油条
5. ______ 馒头

其他:
1. ______ 免洗免洗的蔬菜
2. ______ 鲜肉
3. ______ 鲜鱼
4. ______ 甜猪肉

新鲜食品:
1. ______ 菠菜
2. ______ 鸭
3. ______ 青菜
4. ______ 西红柿
5. ______ 鲜奶
6. ______ 豆制品
7. ______ 黄瓜
8. ______ 豆腐干

VI. 请将您家中所有物品在下表中打上标记“√”

1. 电 话
2. 冰 箱
3. 热水器
4. 空 调
5. 电视机
6. 照相机
7. 计算机
8. 音 响
9. 录相机
10. 微波炉
11. 摩托车
12. 小汽车
13. 钢 琴
14. 洗衣机
15. 寻呼机
16. 摄像机
17. 电热取暖器
18. 移动电话
19. 食品加工机
20. 卡拉 OK 机
21. 私人住宅

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VII. 请就下列各项陈述表明您的态度（用√表示）

<table>
<thead>
<tr>
<th>序号</th>
<th>陈述内容</th>
<th>强烈反对</th>
<th>反对</th>
<th>有点反对</th>
<th>无所谓</th>
<th>有点赞成</th>
<th>赞成</th>
<th>非常赞成</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>我喜欢买加工食品因为方便。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>我喜欢出去吃饭。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>加工食品不好吃。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>我们喜欢在家餐馆里招待客人。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>我们喜欢在家里招待客人。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>我不太愿意买加工食品。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>我不愿买加工食品，因为我无法确定它是否干净。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>餐馆太脏，价格昂贵，味道又差。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>我认为出去吃饭不错。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>我几乎从不买加工食品。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>加工食品的味道不太好。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>我不喜欢出去吃饭。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### VIII. 请就下列各项陈述表明您的态度

<table>
<thead>
<tr>
<th></th>
<th>强烈反对</th>
<th>反对</th>
<th>有点反对</th>
<th>无所谓</th>
<th>有点赞成</th>
<th>赞成</th>
<th>非常赞成</th>
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</thead>
<tbody>
<tr>
<td>1. 依传统办事通常是最好的。</td>
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<td>2. 我的空余时间很多。</td>
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<td>3. 我情愿花钱来节省时间。</td>
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<td>4. 我喜欢尝试新事物。</td>
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<td>5. 我情愿花钱买能省时间的产品。</td>
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<td>6. 我喜欢依老办法做事。</td>
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<td>7. 我非常的忙。</td>
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<tr>
<td>8. 我不会为节省时间和花钱——我宁愿由自己来做每一件事。</td>
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<td>9. 变化是好事情。</td>
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<td>10. 我的生活节奏很快。</td>
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<td>11. 我喜欢大小事情都自己来做，这样省钱。</td>
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<td>12. 我的时间总是安排得很紧。</td>
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<td>13. 如果事情都由自己来做，你就可以省一大笔钱。</td>
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<td>14. 我经常尝试新事物。</td>
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<td>15. 一般情况下，我更愿意依老办法做事。</td>
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### IX. 请注明您在最近五年中有无下述重大改变：

1. 在近五年中我开始了一份新工作。 ____是 ____不是
2. 在近五年中我获得了一份第二职业的工作。 ____是 ____不是
3. 在近五年中我搬进了一处新居。 ____是 ____不是
4. 在近五年中我迁往了一个新城市。 ____是 ____不是
5. 在近五年中我有了一个孩子。 ____是 ____不是
X. 请回答下述问题：

1. 包括各种来源的收入和奖金在内，您的个人月平均收入是_________
   1)没有       2)1—200 元/月       3)201—400 元/月
   4)401—600 元/月       5)601—800 元/月       6)801—1000 元/月
   7)1001—2000 元/月     8)2001 以上元/月

2. 包括各处来源的收入和奖金在内，您的家庭（包括您在内）月平均总收入有______
   1)0—500 元/月      2)501—750 元/月      3)751—1000 元/月
   4)1001—1500 元/月    5)1501—2000 元/月    6)2001—3000 元/月
   7)3001—5000 元/月    8)5001 以上元/月

3. 请注明您目前达到的最高学历：_________
   1)小学或低于小学    2)初中     3)高中     4)中专
   5)大专     6)大学本科     7)研究生     8)博士生

4. 您每周投入于工作__________小时。

5. 您每周其它能增加收入的时间有__________小时。

6. 您的就业状况__________
   1)学生     2)自谋职业者     3)国有企业或部门工作
   4)受雇于私人机构     5)退休在家
   6)退休,但仍从事兼职工作     7)失业
   8)家庭主妇     9)其他人(请注明)
Appendix 8
Final Survey - English

To be completed by surveyors:

Surveyor name

Survey number

Zipcode

Address

Date

Time
This is a survey on food shopping to be completed by people who do the majority of food shopping for their family. If you do at least half of the food shopping for your family, please complete the following survey. The information will be held in strict confidence, and your name will not be associated with any of your answers. Thank you so much for your help.

I.) Please complete the following table to provide information about yourself and every person who lives in your household. Please list everyone who lived in your home for more than 15 days during the last 30 days.

<table>
<thead>
<tr>
<th>Relationship:</th>
<th>Gender:</th>
<th>Age:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Yourself</td>
<td>1. Male</td>
<td></td>
</tr>
<tr>
<td>2. Spouse</td>
<td>2. Female</td>
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<tr>
<td>3. Son or daughter or son or daughter-in-law</td>
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<tr>
<td>4. Grandchild</td>
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<td>5. Parent or parent-in-law</td>
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<tr>
<td>6. Grandparent or grandparent-in-law</td>
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<tr>
<td>7. Sibling or sibling-in-law</td>
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<tr>
<td>8. Other (please write-in relationship)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Yourself</th>
<th>1</th>
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<tbody>
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<td>2</td>
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</tbody>
</table>
II. Please answer the following questions about your food shopping habits:

1) What is the distance of the nearest food market that you use from your residence?
   ___________________ meters

2) What is the total average number of hours that you personally spend food shopping in a seven day period?
   ___________________ hours/week

3) What is the total average number of hours that all of the rest of the members of your household (excluding you) spend shopping for food in a seven day period?
   ___________________ hours/week

4) What is the total average number of food shopping trips that you make to in a seven day period?
   ___________________ trips/week

5) What is the total average number of food shopping trips that all other members of your household (excluding you) make in a seven day period?
   ___________________ trips/week

6) Have you paid anyone to shop for you or prepare food for you in your house any time in the last 30 days?  1)_________yes  2)_________no

7) How much money does your household spend for food in an average month?
   ___________________ yuan/month

III. How many times did you eat dinner at each of the following kinds of places within the last 30 days?

1) Restaurant   ________ times
2) Hotel or other up-scale restaurant   ________ times
3) Outdoor food stand   ________ times
4) Kentucky Fried Chicken   ________ times
5) McDonald's   ________ times
6) Other Western fast food restaurant   ________ times
7) Chinese fast food restaurant   ________ times
8) Other restaurant   ________ times
IV. How many times did you buy food at each of the following kinds of places within the last 30 days?

1) Food market   ________ times
2) Private grain store   ________ times
3) State grain store   ________ times
4) Self-service food store   ________ times
5) State food store   ________ times
6) Private food store   ________ times
7) State poultry stand   ________ times
8) Private poultry stand   ________ times
9) Bakery   ________ times
10) Other   ________ times

V. Below is a list of food items. Please check each of the items that you have purchased at least once within the last 30 days.

Cooked meat:
1. ________ Cooked duck
2. ________ Cooked beef

Canned foods:
1. ________ Canned fish
2. ________ Soft drinks
3. ________ Fruit drinks
4. ________ Canned fruit
5. ________ Canned congee

Packaged foods:
1) ________ Instant noodles
2) ________ Instant breakfast cereal
3) ________ Salty snacks
4) ________ Powdered cow's milk
5) ________ Frozen jiaozi or hundun
6) ________ Packaged tofu

Totally prepared and cooked foods:
1) ________ jiaozi (boiled stuffed dumplings)
2) ________ wontons
3) ________ baozi (steamed stuffed bun)
4) ________ youtiao (deep-fried twisted dough stick)
5) ________ mantou (steamed bread)
Other:
1)_______ cleaned and cut vegetables
2)_______ ground raw pork
3)_______ julienned raw pork
4)_______ frozen pork

Fresh foods:
1)_______ live chicken
2)_______ live duck
3)_______ live fish
4)_______ fresh pork
5)_______ fresh milk
6)_______ green vegetables
7)_______ tomatoes
8)_______ fresh bean products
9)_______ cucumbers
10)______ celery

VI. Please mark each of the following items that your household owns:

1)_______ telephone
2)_______ refrigerator
3)_______ hot water heater
4)_______ air conditioner
5)_______ television
6)_______ camera
7)_______ computer
8)_______ stereo system
9)_______ vcr
10)______ microwave oven
11)_______ motorcycle
12)_______ automobile
13)_______ piano
14)_______ washing machine
15)_______ beeper
16)_______ camcorder
17)_______ heater
18)_______ portable telephone
19)_______ food processor
20)_______ karaoke player
21)_______ private residence
VII. Please state the extent to which you agree with the following statements (strongly
disagree: -3, disagree: -2, somewhat disagree: -1, neither disagree nor agree: 0,
somewhat agree: +1, agree: +2, strongly agree: +3).

1) I like to buy processed foods for the sake of convenience.
2) I like to go out to eat.
3) Processed food doesn’t taste good.
4) We like to entertain guests in restaurants.
5) We like to entertain guests at home
6) I’m not willing to buy processed food.
7) I don’t like to buy processed food, because I’m not sure if it’s clean.
8) Restaurants are dirty, expensive, and bad-tasting.
9) I think eating out is nice.
10) I almost never buy processed food.
11) The taste of processed food is not good.
12) I do not like to go out to eat.

VII. Please state the extent to which you agree with the following statements (strongly
disagree: -3, disagree: -2, somewhat disagree: -1, neither disagree nor agree: 0,
somewhat agree: +1, agree: +2, strongly agree: +3).

1) The traditional way of doing things is usually the best
2) I have a lot of free time.
3) I am willing to spend money to save myself time.
4) I enjoy trying new things.
5) I am willing to spend money on products that save me money.
6) I like to do things the old way.
7) I am quite busy.
8) I do not use money to save time—I’d rather do everything myself.
9) Change is good.
10) I lead a fast life.
11) I like to do everything myself to save money.
12) My time schedule is very tight.
13) When you do things yourself, you can save a lot of money.
14) I often try new things.
15) I normally prefer doing thing the old way.
VIII. Please state the extent to which you agree with the following statements (strongly disagree: -3, disagree: -2, somewhat disagree: -1, neither disagree nor agree: 0, somewhat agree: +1, agree: +2, strongly agree: +3).

1) Preparing good meals takes too much time.
2) When I go to the market, I like to buy a lot of food at one time to save trips.
3) I go to the market to buy food almost every day.
4) Cooking takes too much time.
5) I don't like to shop for food or to cook. But I have no choice but to do it.
6) I prefer to go to the market every day.
7) I don't like to shop for food.
8) I look for ways to reduce trips to buy food.
9) I don't like to spend a lot of time at the market buying food.
10) Food shopping takes too much time.

IX) Please indicate whether each of the following important events has occurred to you in the last five years:

1) In the last five years I started a new job. _____ yes _____ no
2) In the last five years I took on a second job. _____ yes _____ no
3) In the last five years I moved to a new house. _____ yes _____ no
4) In the last five years I moved to a new city. _____ yes _____ no
5) In the last five years I had a baby. _____ yes _____ no

X. Please answer the following questions:

1) What is your total average monthly personal income, including all sources of income and bonuses? ____________
   1) no income 2) 1-200 yuan/month 3) 201-400 yuan/month
   4) 401-600 yuan/month 5) 601-800 yuan/month 6) 801-1000 yuan/month
   7) 1001-2000 yuan/month 8) 2001 or more yuan/month

2) What is the total average monthly income of your household, including all sources of income and bonuses? ____________
   1) 0-500 yuan/month 2) 501-750 yuan/month 3) 751-1000 yuan/month
   4) 1001-1500 yuan/month 5) 1501-2000 yuan/month 6) 2001-3000 yuan/month
   7) 3001-5000 yuan/month 8) 5001 or more yuan/month

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3) What is the highest education level you have reached: 1) Elementary school or less  2) Junior high  3) High school  4) Training school  5) Three-year college  6) University graduate  7) Master's degree  7) Doctoral degree

4) How many hours do you work each week at your regular job?
   __________ hours/week

5) How many hours do you work each week at other income-producing activity apart from your regular job?
   __________ hours/week

6) What is your current job status?__________________________
   1) Student   2) Self employed   3) State institute employee
   4) Private institute employee   5) Retired
   6) Retired, but working part time   7) Unemployed
   8) Homemaker   9) Other (please indicate)
### Appendix 9
Correlation Matrix for Structural Model

<table>
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<tbody>
<tr>
<td>1) Pace of life</td>
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<td>2) Attitude towards change</td>
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<td>3) Willingness to use money to save time</td>
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<td>.45</td>
<td>1.00</td>
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<td>4) Attitude towards the frequency of food shopping trips</td>
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<td>.32</td>
<td>.41</td>
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<td>5) Personal income</td>
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<td>6) Frequency of food shopping trips</td>
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<td>-.25</td>
<td>-.54</td>
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<td>1.00</td>
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<tr>
<td>7) Attitude towards the use of processed foods</td>
<td>.26</td>
<td>.40</td>
<td>.52</td>
<td>.38</td>
<td>.38</td>
<td>.34</td>
<td>1.00</td>
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<td>8) Attitude towards the use of restaurants</td>
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<td>.38</td>
<td>.48</td>
<td>.37</td>
<td>.37</td>
<td>.27</td>
<td>.89</td>
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<td>9) Use of restaurants</td>
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<td>.33</td>
<td>.40</td>
<td>.28</td>
<td>.31</td>
<td>.27</td>
<td>.56</td>
<td>.50</td>
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<tr>
<td>10) Use of processed foods</td>
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<td>.22</td>
<td>.37</td>
<td>.28</td>
<td>.38</td>
<td>.34</td>
<td>.37</td>
<td>.40</td>
<td>.39</td>
<td>1.00</td>
</tr>
</tbody>
</table>
VITA

Ann McConnell Veeck was born in New York City, New York, on November 29, 1956. She received a Bachelor of Music Education from Denison University in 1978 and a Master of Marketing Research from the University of Georgia in 1986. She has worked as a research analyst for Kraft Inc. in Glenview, Illinois and Frank Small and Associates in Taipei, Taiwan. She will be awarded the Doctor of Philosophy in Business Administration degree from Louisiana State University in May 1997.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Ann McConnell Veeck

Major Field: Business Administration

Title of Dissertation: Changing Tastes: Purchase Choice in Urban China

Approved:

[Signatures]

Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

March 14, 1997