CONSUMERS' PURCHASING MOTIVES OF LOCAL FOODS IN INDONESIA: A MEANS-END CHAIN APPROACH

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Poppy Arsil

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ABSTRACT

This study aims at examining: (a) the consumers' perceptions of local foods, (b) the motives for purchasing local foods, and (c) the market segmentations involved in local food markets. From an understanding of how consumers think and behave, the central messages for local food promotion can be advanced.

Means End Chain (MEC) is employed as the main analytical procedure. This study involves a sample of 533 Indonesian consumers of local foods. The study also investigates both the ethnic and geographical differences among consumers. Three major ethnic groups are involved in this study namely, the Javanese, the Sundanese and the Minangese living in urban or rural areas. The respondents are selected by using a multistage random sampling procedure.

This study identifies three main characteristics of 'local' when compared to 'national' and 'imported' food products that involve 'place produced', 'price' and 'quality'. In short, a geographical concept is a generally accepted definition of local foods. When consumers are asked the meaning of 'place produced', they mainly refer to 'village' with respect to the political boundaries in Indonesia. Respondents also consider that local foods are cheaper and have higher quality than 'national' and 'imported' foods. It is suggested that the Indonesian Government can create a database of potential local resources that is based on 'village' and that promotes the local resources as well as a higher level of political boundaries in Indonesia such as sub-districts, regencies or cities, provinces or even islands and the country as a whole.

This study also finds that respondents have a relatively low-level of knowledge of local food policy. Therefore, greater publicity and education are needed in order to ensure that the central messages are better delivered. The most effective way suggested by this study is through the mass media, such as, through cooking programs as well as through a promotional program that explores the local food sources from specific areas of Indonesia.

The motives for purchasing local foods that are associated with the four major consumption situations namely: (a) everyday eating, (b) eating at restaurants, (c) eating when travelling and (d) eating when celebrating religious festivals involve three main

motives. These motives are: 'save money', 'health benefits' and 'easy in preparation'. The 'save money' motive is considered to apply to all consumption situations whereas the motive of 'health benefits' is reported to apply to three consumption situations: every day eating, eating at restaurants and eating when travelling. The motive of 'easy in preparation' is primarily associated with everyday eating. These motives can be used by the Indonesian Government and local businesses in the promotion of local foods.

Three specific motives are considered by respondents when making decisions to buy local foods among urban and rural Javanese, Sundanese and Minangese people, namely 'save money', 'controlling budget' and 'health benefits'. The motive of 'save money' and 'controlling budget' are more important in both urban and rural Javanese and urban Sundanese areas when compared to the other areas. The motive of 'health benefits' is considered stronger for urban Sundanese people and both urban and rural Minangese people when compared to the other areas.

Eight segmentations of local foods are identified with respect to urban and rural locations and ethnic groups, as well as four different consumption situations, namely: 'save money', 'health benefits', 'controlling budget', 'fun and enjoyment in life', 'support local communities', 'easy in preparation', 'taste matters' and 'sustain local culture'. The respondents' characteristics for each market segment differ with respect to urban and rural locations as well as the four different consumption situations. The central messages specific to each segment are advanced and can be used for the development of promotional strategies associated with local foods in the mass media.

CONSUMERS' PURCHASING MOTIVES OF LOCAL FOODS IN INDONESIA: A MEANS-END CHAIN APPROACH

Chapter 1: Introduction

1.1 Introduction

Support of the local-food movement as an alternative food system has been emerging globally. Many countries have promoted local food systems as a part of sustainable food production, such as in Japan: the Chisan-Chiso Movement (locally produced, locally consumed) (Kimura and Nishiyama 2008), and in the United States of America (USA): 'The Local Foods Purchase Policy' of Woodbury county, Iowa, (Flint 2004), and 'The AgriMissouri Promotion Program' of South Missouri (Brown 2003). The Indonesian Government has also promoted local food policy through the President Regulation Number 22 in 2009 with respect to food diversification that is based on local resources, aimed at encouraging Indonesian people to consume local foods to diversify their food consumption.

The term 'local foods' is used in order to 're-link food to place' (Hall and Wilson 2010). Hall and Sharples (2008) noted that localization is a key within adversarial discourse as a shorter food transportation distance from farms to consumers in a particular area. The term 'particular place' has flexibility in meaning in various countries and among researchers. In the United Kingdom, products produced and sold within a 30-50 mile radius of the buyer's house are defined as local foods (Trobe 2001). Similar to this, Chambers et al. (2007) claimed that British consumers' perceptions of local foods included products produced and sold in a local area up to a maximum 20 to 50 mile radius from the consumer's home. Another prominent simplistic notion for local foods is 'food miles'. The food miles concept is based on the fact that the further the food travels from farmers to consumers, the greater the negative impacts to the environment (Kemp et al. 2010). In the USA, university students, who represent people of an age responsible for their first food choice, were asked about their perception of local foods. The dominant criteria of local foods for them were the 'place produced', 'uniqueness/place specialty', and 'distribution/marketing'. Food grown locally or near to the consumer was generally accepted as local foods. Furthermore, the students pointed out that apple and corn are products identified as local foods (Wilkins et al. 2000). Smithers et al. (2008) asked consumers in fifteen markets in Canada about the meaning of

local foods. They reported the following results: most thought the meaning of 'local' is when products are produced and sold within a region or neighbouring region (40%), some thought it is within a county or neighbouring county (28%) and a few thought it is within a municipality/neighbouring municipality (18%).

The official definition of local foods given by the Indonesian Agricultural Department (2010 p. 8) was: 'Foods including carbohydrates, proteins, vitamins and minerals which are produced and developed based on local potential resources and local cultures'. This definition still left a problem as to what 'local' means. If 'local' refers to a distance, how far is it? What makes foods 'local' rather than 'national' or 'imported'? Therefore, the first objective of this study is to examine consumers' perceptions of local foods.

What are the primary motives Indonesian consumers seek for local foods is also lacking. This was also emphasized by Adams and Salois (2010, p. 171) when they conducted a study of consumers' preferences for local and organic food products:

> There is a gap in thorough understanding of consumer decision-making toward sustainable food consumption.

Another study of consumers' conception of local foods between group shoppers at farmers' markets in Florida by Adams and Adams (2011, p. 96) also emphasized an important question regarding consumer behaviour with respect to local foods:

> What are the true underlying factors that motivate people to seek out alternative foods?

Thus, we need to understand what motivates people to buy or not to buy their local foods. The second objective of this study is to examine the motives that drive consumers to purchase local foods.

Feenstra (1997, p. 28) emphasized that:

> Local food systems are rooted in particular places, aim to be economically viable for farmers and consumers, use ecologically sound production and distribution practices and enhance social equity and democracy for all members of the community.

This is echoed by many researchers from developed countries who believe that the capacity of a local food system can enhance both economic and social values among farms and farmer families as 'producers' and non-farm interests and consumers as 'users' especially in the local area (Hinrichs 2003, Lyson 2004). Differently from other developed countries, the development of local food system in Indonesia is intended to fulfil the food and nutrition needs for Indonesian families through food diversification based on local resources. This is strengthened by the President Regulation No. 22 year 2009 regarding the acceleration of

food diversification that is based on local resources. This regulation was issued to overcome some problems in food consumption such as a low local food consumption, a low variety of products consumed, and in particular the domination of rice as the main source of carbohydrate. Around 62.1 per cent of Indonesian people depended on rice as the main cereal (Indonesian Agricultural Department 2010).

Food diversification policy began in the early 1960s and was formalised by the Presidential Instruction number 14 in 1974. This regulation focussed on improving people's daily diet. It was expanded by food diversification and nutrition programs sponsored by the Indonesian Agricultural Department (1993-1998). The program was strengthened in 1989 when the Fourth development cabinet formed the Ministry of Food. The minister launched the slogan 'I like Indonesian food' in 1996. In 2001, the Food Security Council was established to focus on food security issues (Suyono 2002). Despite an increasing in energy and protein consumption on average, the implementation of local food policy was assessed by the Indonesian government as slow in progress due to the low score of the Indonesian diet according to 'the hope of food pattern'. The hope of food pattern can be described as the variety of food consumed based on the contribution of energy from each of the major food groups (Indonesian Agricultural Department 2010, p. 5). Previous policy regarding food diversification was unsuccessful due to institutional and management problems. The dominant role of government was assumed to be the main problem, resulting in less accurate policy to address what the community needs (Indonesian Agriculture Department 2010).

It is axiomatic that consumers are central to all marketing activities, including food choice decisions. Understanding consumer behaviour means understanding how consumers behave, which is essential for the policy to be successfully implemented for consumers in the market place. In order to understand consumer behaviour, policy makers must understand the consumers' motives behind consumers' consumption decisions. In other words, it is necessary to understand what needs the consumers are seeking to meet and why they choose a certain way to meet these needs (Schütte and Ciarlante 1998). The Indonesian Government must learn from the lessons from the previous implementation of food diversification policy. At this point, the government must emphasize that consumers have a significant role for successful diversification of local foods. What are consumers' motives that drive them to purchase their local foods and in what market segmentation they are placed are critical for better understanding of consumers' needs. This thesis will also reveal the motivation for purchasing local foods and identify market segmentations involved.

Indonesia is the fourth most populous country and consists of hundreds of ethnic groups. More than 238 million people resided in Indonesia in 2010, with approximately 59 per cent concentrated in Java Island, making it the most densely populated island in the world. The Javanese are the largest ethnic group in Indonesia and make up 41 per cent of the Indonesian population. Most of the Javanese people live on Java Island but they are also spread across the Indonesian regions. According to Molyneaux and Rosner (2004), food consumption in Indonesia from 1996 to 2002 increased by 7.5 per cent annually and this created an enormous food market. Although Indonesia has a potential market for local food products, knowledge of the behaviour of local food consumers is lacking particularly for different ethnic groups. Therefore, this study will also investigate and compare consumers' perceptions and motivations between three main major ethnic groups in Indonesia, namely the Javanese, the Sundanese and the Minangese.

There are some important factors considered by consumers when purchasing local foods. Rural and urban locations are reported by some scholars as an important factor in the choice of local foods (Brown 2003, Roininen et al. 2006, Weatherell et al. 2003). Moreover, Belk (1975a) also reported that because there were serious limitations in the ability of personal buyer characteristics to operate as the single factor influencing buying behaviour, the consumption situation was an important factor that could be used to explain variation in consumer purchasing decisions. In this study, the consumers' motivations of purchasing local foods are explored in urban and rural locations as well as in different consumption situations involving everyday eating, eating at a restaurant, eating when travelling and eating when celebrating religious festivals.

Means End Chain (MEC) is a qualitative approach that provides a link between the attributes (A) that the products have, consequences (C) provided by attributes and personal values (V) reinforced by consequences which yield a Hierarchy Value Map (HVM) (Peter and Olson 2005, Reynolds and Gutman 1988). Prior studies have produced a set of A, C and V, that underpin MEC theory, which are linked with local foods (Lind 2007, Roininen et al. 2006). However, these attributes may differ significantly with respect to the personal, social and cultural views and beliefs between European and Asian countries.

The concept of personal psychology introduced by Kelly (1955) argued that people categorise their personal elements into a categorical hierarchy. This is then applied by Gutman (1982) in marketing research by defining the level of hierarchy into attributes, consequences and values. The basic tenet of this theory in marketing is that there is a chain

of products, services and behaviours stored in memory and these are linked to the personal value concept. The means, products, services or certain attributes start to establish a sequence link providing desired consequences as the end while values drive buying behaviour as fundamental sources of choice criteria (Reynolds and Gutman 1988). This, the basic assumption of the means-end methodology, is also the tenet of the general marketing concept that products, services and behaviours are the main factors that drive consumer buying behaviours (Kotler and Armstrong 1991). By using this method, some reasons why consumers buy the particular products are explored (Reynolds and Gutman 1988).

The application of the MEC analysis is widely used in consumer behaviour research. The methodology is used in varying studies such as wine products (Hall and Lockshin 2000), pork meats (Roininen et al. 2006), meals choice (Costa et al. 2004), the French fair trade coffee (de Ferran and Grunert 2007) and pork products (Lind 2007). Hall and Lockshin (2000) reported that the MEC approach is a powerful method to understand the influence of occasion on consumers' wine choice. In this research it was revealed that different occasions played an important role in choosing wine. Roininen et al. (2006) incorporated the values, meanings and specific benefits of pork consumers into a map of hierarchy. There were four types of pork meat products production examined: locally, conventionally, organically and intensively. In France, de Ferran and Grunert (2007) reported that the motivations of specialised store buyers of the French fair coffee were wish to protect the environment and to participate in alternative economy. However, the motivation of the supermarket consumers was more focused on respecting human rights. Costa et al. (2004) revealed the motives behind meals choice solution: homemade meals, ready meals, take-out and eating out meals. Lind (2007) explored the motivation of Swedes to buy unbranded imported pork, branded pork and local-organically produced pork. In this study, the MEC analysis will be used to understand the motivation behind purchasing local foods in Indonesia. Therefore, it is considered that the MEC approach is likely to be an effective approach to investigate consumers' motivation to purchase locally produced foods.

Consumers can be segmented based on their motivation. The benefit of consumer segmentation is to provide subset groups of consumers who have common needs as a target market. The segmentation is really needed if the differences between consumer characteristics exist to deliver the effective marketing strategy to a particular target market (Kotler and Armstrong 1991). In the last section of this study, the segments of local food consumers are presented, including the promotional strategies specific to each segment.

The summary of the relevant problems that leads to the relevant knowledge/research gap can be seen in Figure 1.1.

LOCAL FOODS

Produced and sold near consumers

Enhance social economic values
Environmental benefits
Economically viable for farmers and consumers
(Feenstra 1997, Hinrichs 2003, Lyson 2004)

THE DEVELOPMENT OF LOCAL FOODS

Developed countries: The development of the local food system is aimed at supporting sustainable food production.

Indonesia: The development of local foods is aimed to diversify food consumption in order to meet basic nutrition and reduce the high dependence on rice (President Regulation No. 2/2009).

Problems identified in Indonesia
*The local food definition is too broad.
*No knowledge regarding consumers' perceptions and motivations towards the local food policy.
*The food diversification policy is a top-down policy resulting in slow progress and less success than might be expected (Indonesian Agricultural Department, 2010).
*Indonesia consists of at least a hundred ethnic groups. However, there is a lack of knowledge with regard to perceptions and motivations towards local foods between different ethnic groups, urban and rural locations and consumption situations.

MEANS-END CHAIN ANALYSIS
The linkages among:
Attributes the products have,
the consequences provided by the attributes,
the personal value reinforced by the consequences, into a hierarchical map of the consumers' cognitive structures (Gutman, 1982, Reynold and Gutman, 1988).

CUSTOMER ORIENTED
The perception of local food.
The motives that drive them to buy local foods.

Consumers segmentations based on motivations

Figure 1.1: Summary of relevant literature leading to research problems.

1.2 Objectives of the study

The general objective of this research is to examine the perceptions of local foods and to determine the motives of buyers when they make local food consumption decisions. The specific aims of this study are:

1. To examine the consumers' perceptions of local foods.
2. To determine consumers' motives that drive them to buy local foods with respect to ethnicity, urban and rural locations, and consumption situations by using the Means-End Chain (MEC) approach.
3. To identify market segmentations based on motivations.

1.3 Research questions

In order to examine the objectives, these specific research questions have been formulated:

1. What are the consumers' perceptions of local foods?
    a) What are the consumers' perceptions of local foods, rather than national and imported foods, with respect to characteristics of 'local'?
    b) How do consumers perceive the meaning of 'place produced' in rural and urban locations as well as between ethnic groups?
    c) What are consumers' perceptions of price and quality of local foods in rural and urban areas as well as between the three major ethnic groups?
    d) What foods come from local sources?
    e) What are (a) the levels of consumer awareness and (b) the most familiar sources of knowledge of local foods policy in Indonesia?

2. What are the primary motives of Indonesian consumers when purchasing their local foods?
    a) What are the main motives with respect to local foods that consumers want to achieve that are associated with four situational aspects of consumption namely: (a) everyday eating, (b) eating when travelling, (c) eating at a restaurant, and (d) eating at festive religious events?
    b) What are the similarities and differences in motivations with respect to four occasions?

c) What are the motives with respect to local foods that need to be achieved by urban and rural Javanese, Sundanese and Minangese residents when making decisions to buy local foods?

d) What are the similarities and differences in the motives expressed by urban and rural residents?

3. What are the segmentations involved in purchasing local foods?

a) What are the motivation-based segmentations of local foods in urban and rural locations with respect to the four different consumption situations?

b) What are the descriptive profiles of each segment involved?

c) What are the central messages for the strategies of promotion in a direct way for each segment with respect to consumption situations and rural and urban locations?

1.4 The thesis structure

The structure of the thesis in this study is as follows:

- An introduction is presented in Chapter 1, while Chapter 2 reviews previous research studies into local food definition, local food systems, Maslow's hierarchy theory, Means-End Chain analysis, ethnicity backgrounds and situational consumptions, and market segmentation. The research questions are included in Chapter 1.

- Chapter 3 presents a consideration why a combination of qualitative and quantitative approach is used in this study and a conceptual theory of the Means-End Chain (MEC) associated with local food purchasing decisions. A discussion of MEC methodology, the sampling procedure employed in order to reach respondents to provide the basic data for this study as well as the method of data analysis employed are presented in this chapter. This chapter also considers methods used to interpret the conceptual theory.

- The conceptual model with respect to specific aspects of the MEC approach is discussed in Chapter 4 and is empirically tested through a pilot study of Indonesian consumers who live in Adelaide. This chapter is presented as a manuscript that is ready to submit.

- A discussion of consumers' perspectives of what the construct 'local' means and the level of awareness of local food policy in Indonesia are presented in Chapter 5. This chapter is also provided as an accepted manuscript of the *International Journal of Food and Agribusiness Marketing*.

- The detailed analysis of purchasing motives in four situations -everyday eating, eating at a restaurant, eating while travelling and eating to celebrate religious festivals- are reported in Chapter 6. Each single situation is examined with its own Hierarchy Value Map (HVM) and consideration is given to reasons why they choose specific ways in order to provide a better understanding of local food decision criteria.

- Chapter 7 reports the comparison of motivation for buying local foods between ethnic groups (the Javanese, the Sundanese and the Minangese) with respect to urban and rural locations. In this chapter, an example of a HVM for each rural and urban location is presented for each ethnic group and supported by quotes from the respondents. A sub-chapter of exploring consumer motivations towards buying local foods between the Javanese people is presented as a paper presented at the Australian Agricultural & Resource Economics Society (AARES) conference at The Sydney Convention and Exhibition Centre, Sydney, New South Wales from 5-8 February 2013. This paper has been accepted for publication by the *British Food Journal* and is attached in Appendix 1.

- Chapter 8 examines how motivation across occasions and urban rural locations translate to market segmentations and provides the profiles of each segment. A sub-chapter of a motivation-based segmentation study with respect to urban-based respondents across three ethnic groups is presented as a paper submitted to the Fourth International Conference on Food Studies at the Monash University of Prato, Italia from 20-21 October 2014. The conference paper is also attached in Appendix 2.

- Chapter 9 summarises the findings and conclusions of this study including policy implications and practices.

- Chapter 10 summarises contributions of this study to knowledge, direction for further research and research limitations.

Chapter 2: Literature Review

2.1 Introduction

This chapter presents the main literature reviews that are involved in food choices and local foods, the Means-End Chain (MEC) approach, the Maslow Theory, consumption situations, ethnicity backgrounds, urban and rural locations and market segmentations. An investigation of the local food system, its movement and how this system influences food choice are undertaken. The usefulness and capability of the MEC approach is central to this study. In this chapter, some previous studies pertaining to the motives behind purchasing local foods are presented and discussed. These involve consumption situations and ethnicity as well as rural and urban locations. How to segment motivations across occasions and urban and rural locations are also discussed.

2.2 Food choices and local foods

In previous studies, food choices are considered to be a complex function of individual and environmental factors, categorised sensory characteristics (taste, odour, texture) and non-sensory characteristics (Prescott et al. 2002, p.61), including price and health claims (Vickers 1993), food-related expectations (Rozin 1996), cultural and socio-economic status forces (Delisle 1990), and environmental issues (Weatherell et al. 2003). These are the dominant and determining factors influencing consumers in making food choice decisions. If marketers try to increase consumers' acceptance of a product, some major factors such as consumers' personal and cultural backgrounds as well as situational consumptions will generally be considered (Martins and Pliner 2005).

Feenstra (1997) reported that some consumers identified alternative food systems that considered ecological components, life quality and living environment. Moreover, local foods have commonly attracted consumers' attention. For consumers, the capacity to differentiate local foods from the widely used food products allows customers to specify the important attributes they prefer. Attributes provided by local foods such as food quality, consumer health and safety, enriching the local community, promoting social equity and waste minimization due to a short marketing system were positive attributes identified by consumers. Local food systems are also believed to be economic and viable alternatives in

the food systems for both farmers and consumers with respect to sustainable food consumption (Feenstra 1997). The advantages of the local food system have attracted public-decision makers, research workers, profit and non-profit businessmen, producers and local communities to become involved in this system with its emerging market demands and its interesting phenomena.

The conceptualizations of what 'local' means among consumers differ greatly (for example Bruhn et al. 1992, Chambers et al. 2007, Darby et al. 2008, Dunne et al. 2011, Gallons et al. 1997, Onozaka et al. 2010, Roininen et al. 2006, Smithers et al. 2008, Wilkins et al. 2000, Zepeda and Leviten-Reid 2004). Flint (2004, p. 1) stated that the simple rule of thumb for the meaning of 'local' was that:

> The salad on your bowl doesn't come from a farm thousands of miles away, or from another country.

Weatherell et al. (2003, p. 234) argued that the local food movement seemed to flourish in developed countries such as the United States and European countries:

> Local food is strong in developed countries because they are often associated with these abstract benefits.

On the one hand, the advantages that consumers seek from local foods are good health, environmental benefits and animal welfare (Gracia and Albisu 2001). On the other hand, rural sociology and geography scholars have theorised that neither intrinsic (eg. colour, texture and taste) nor extrinsic factors (eg. price, good health, environmental benefits and animal welfare) are the main factors that are considered by consumers in purchasing local foods. The engagement of farmers and food producers and their reconnecting with their rural roots are other determining factors that influence local food choices (Hinrichs 2000, Montanari 1994) in developed countries.

In the United States of America (USA), many states have promoted local foods systems in a movement towards sustainable food production, such as 'The Local Foods Purchase Policy' of Woodbury County, Iowa, (Flint 2004), 'The AgriMissouri Promotion Program' of South Missouri (Brown 2003) and 'The Delaware Agricultural Schemes' (Gallons et al. 1997). Ostrom (2006 , p. 66) stated:

> It could be argued that 'local foods' has become the unifying theme of a social movement to challenge and re-shape the modern agri-food system.

In the United Kingdom (UK), a local foods system has been promoted by the Government since 2002, as part of a movement over a period of 10 years that involve a policy of sustainable food consumption and supported a 'dynamic element of the food system in the UK' (Morris and Buller 2003, Ilbery et al. 2006). Fortunately, UK consumers have a very positive attitude towards developing their local foods. They believe that locally grown produce is of higher quality compared to national or imported foods (La Trobe 2001), as well as being safer and more nutritious (Seyfang 2004). Another factor supporting this preference is consumer ethnocentrism, since UK consumers prefer to buy English products. In France, Siriex et al. (2008) reported that French consumers were aware of the distance that food had travelled. However, 'food miles' was not an important factor considered by French consumers when making food choice decisions.

Japan, a highly developed Asian country, has also promoted 'The Chisan-Chisho movement' (locally produced, locally consumed) since the late 1990s. This movement was introduced in order to deal with a long-term crisis in the Japanese food system that resulted from low food self-sufficiency, food scandals, including generic modification products and food label falsification, as well as mad cow disease (Kimura and Nishiyama 2008).

Although the local food movement is still struggling as a boutique phenomenon (Adams and Adams 2011), it is not surprising that this movement is being adopted globally, including in developing countries. Flint (2004, p. 1) predicted that:

> Buying local soon will become as natural as recycling, backers say, or not smoking or driving a hybrid car.

In a developing country such as Indonesia, the local food program was aimed at overcoming certain fundamental problems, such as low food consumption, low variety in consumable products, and the domination of rice as the main source of carbohydrate (Indonesian Agricultural Department, 2010). The proportion of Indonesian people suffering from so-called 'food insecurity' (calorie intakes less than 1,400 Kcal/person/day) was 13.3 per cent in 2010. Moreover, rice dominated the Indonesian daily food intake. Around 62.5 per cent of Indonesian people ate rice for their daily diet, amounting to 139 kilograms/person/year in 2010 and higher than in Malaysia (80 kg), and Japan (60 kg); this the highest level of rice consumption in the world (International Rice Research Institute, 2012). These problems are in need of serious attention from the Indonesian Government as Indonesia was also the fourth most populous country in the world, and was occupied by 238

million people in 2010 (Indonesian Agricultural Department, 2010). In order to deal with these problems, the Indonesian Government issued President Regulation Number 22 in 2009 regarding the acceleration of food diversification that was heavily based on local resources. The local foods that are easily found in a traditional market in an Indonesian city can be seen in Figure 2.1.

Source: Rahmadi (2013) with permission from the owner

Figure 2.1: Local foods available in a traditional market in an Indonesian city.

In Indonesia, the term 'local foods' has a broad meaning. It is explained by the Agricultural Department as foods, including carbohydrates, proteins, vitamins and minerals, which are produced and developed based on local potential resources and local cultures (Indonesian Agricultural Department, 2010 p. 6). It is generally believed that rice, corns, cassava, sago palms and peanuts are local foods for Indonesians. Indeed, there is no significant standardised method to distinguish between national products and local products. Therefore, understanding local food perceptions and consumers' motivations of the local foods are crucial issues to develop local food systems in Indonesia. In order to understand the consumer motivations, Maslow theory can be used to understand the hierarchy of needs.

2.3 The motivation of needs: the Maslow Theory

Maslow hierarchy provides a useful framework to understand the individual motivation of needs. This hierarchy consists of five levels: physiological, safety, belonging, prestige and self-actualisation. Each of these specifies a certain level of need. In this theory, the individual tries to fulfil unfulfilled needs in order to achieve a balanced state of homeostasis. This drives a motivation within an individual to achieve a certain level (Maslow 1970). Although this method originally was used to explain and understand the motivation of personal growth and the attainment of 'peak experience', it is also appropriate to understand consumer motives driving forced consumption decisions (Solomon 2006). In this theory, the needs are ranked based on importance, starting from lower-level basic needs (biogenic needs) and progressing higher-level basic needs (psychogenic needs). The lower-level basic needs must be satisfied before the higher-level needs emerge. The satisfaction of a need will create a motivation for individuals to achieve a higher level of needs (Schűtte and Ciarlante 1999).

Maslow claims that this hierarchy will suit all societies. However, others have claimed that it is more suited to western countries, particularly American culture, and is inappropriate for Asian countries (Redding 1982). In response, Schűtte and Ciarlante (1999) proposed a Maslow hierarchy for Asian countries. The difference between the original hierarchy and the proposed hierarchy is that in the social level, belonging and prestige are broken down into three levels; affiliation, admiration and status, as shown in Figure 2.2.
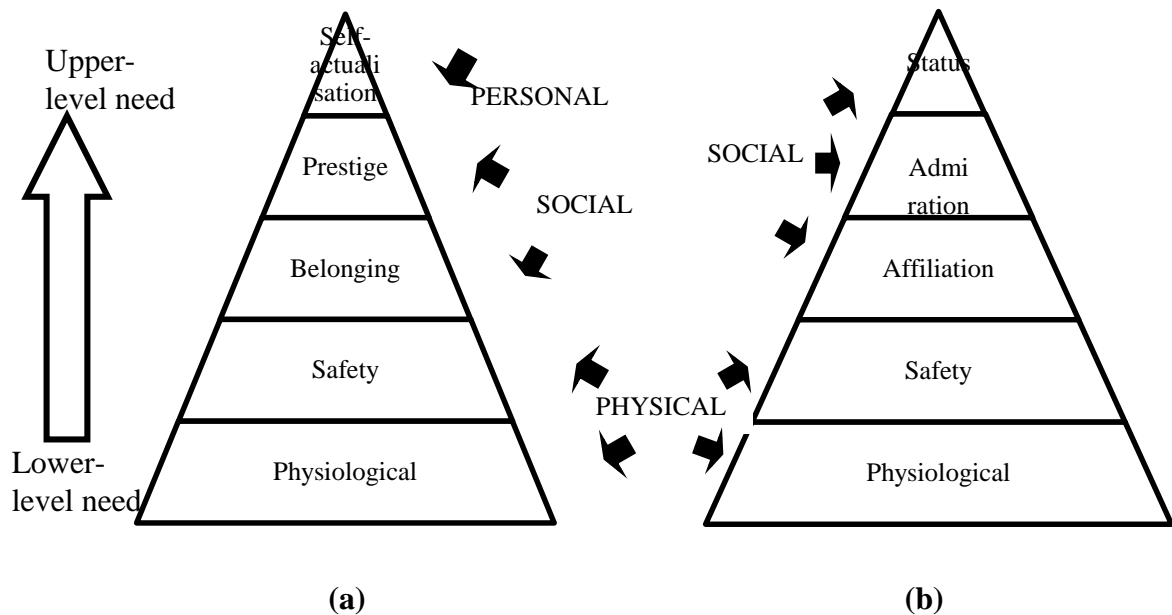
Figure 2.2: Maslow hierarchy of needs (a) and the Asian equivalent (b) (Shŭtte and Ciarliante 1998, p. 93).

Physiological needs are the most important needs that are required for the human body in order to function properly. These involve such as air, water, foods, clothing and shelter. Furthermore, safety and security needs include personal health, financial security and personal security (Maslow 1970). Schŭtte and Ciarlante (1999, p. 93) stated that affiliation was 'the acceptance of an individual as a member of a group'. Although an individual automatically gains acceptance within the family, he/she needs to comply with a certain qualification to be accepted in a society group. If the affiliation has been attained, the desire to achieve admiration (higher level of need) emerges. Admiration is the demand to be respected by others. Once the admiration has been attained, he/she will desire status from a larger social group. This level closely resembles Maslow's prestige need. There are some methods to reveal consumer motivations of buying. Means-end chain analysis is a powerful method to explore the motivation of consumers which is based on Maslow's hierarchy.

2.4 The Means-End Chain (MEC) Approach

The means-end chain (MEC) theory has been shown to reveal consumer perceptions and motivations to buy or not to buy specific food products including beverages (Gutman 1984), vegetable oils (Bech-Larsen et al. 1996), beef (Hofstede et al. 1998), mother infant feeding choices (Gengler et al. 1999), genetically modified products (Bredahl 1999, Grunert et al.

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2001), local foods (Roininen et al. 2006), different kinds of pork (Lind 2007), meat consumption (Bonne and Verbeke 2006, Radder and Grunert 2009), functional foods (Krystallis et al. 2008, Urala and Lähteenmäki 2003), organic foods (Baker et al. 2004, Barrena and Sanchez 2010, Fotopoulos et al. 2003, Makatouni 2002, Naspetti and Zanoli 2009), biotechnologically produced foods (Grantham 2007), yoghurt (Ares et al. 2008) and vegetables for human consumption (Kirchhoff et al. 2011). The MEC approach has also been identified as a useful method to reveal the driving forces of consumers' food choice in the United States (Gengler et al. 1995, Grantham 2007, Gutman 1984), many European countries including the United Kingdom (Padel and Foster 2005), Denmark (Bech-Larsen et al. 1996), Sweden (Lind 2007), Belgium (Bonne and Verbeke 2006), Finland (Roininen et al. 2006), Greece (Fotopoulos et al. 2003, Krystallis et al. 2008), Spain (Barrena and Sanchez 2010), in South American countries such as Uruguay (Ares et al. 2008), in South Africa (Radder and Grunert 2009) and in Australia (Kirchhoff et al. 2011). This method has also been used to compare the motivation of food choice between groups of consumers in different countries (Baker et al. 2004, Grunert 1997, Grunert et al. 2001, Valette-Florence et al. 2000), and across European countries (Bredahl 1999, Naspetti and Zanoli 2009).

The main idea of MEC theory advanced by Reynold and Gutman (1988) is that consumers would buy and consume a specific product because they believed that specific attributes (as the means) of the product will lead them to achieve the desired value (as the ends) through the consequences of product-use. This theory enables the linkage and the interrelation of the specific attributes and their consequences through both consumption and personal values. There were two assumptions of MEC underlying Gutman's model (Gutman 1982):

1. All the actions of consumers have consequences.

2. All consumers learn to connect particular actions to particular consequences.

The 'means' are the attributes that referred to the perceived characteristics which a product has. They are sub-divided into concrete attributes, attributes that could be measured physically, and abstract attributes that are more subjective in nature. Consequences accrue from using services or consuming products that may lead to desirable or undesirable outcomes. The consequences may be obtained after product-use or at a later time. The

means-end chain model assumes that consumers will choose actions that lead to desired consequences and minimise undesirable consequences (Gutman 1982).

The ends can be the values. Many people use general values to choose particular actions and to evaluate their own activities, other people's actions, and events as well as to connect each individual with his or her society (Grunert and Juhl 1995). Values can be explained as the important beliefs of individuals about some desirable end-state. These values emerge from individual personality, social-cultural background and her or his institutions (Rokeach 1973). What differentiates between cultures is the different degree in which the values are held (Baker et al. 2004). The Rokeach Value Scale (Rokeach 1973) and Kahle's List of Values (Kahle 1983) have been commonly used in research into understanding values. However, this pre-list of values has not proved to be valid for cross-cultural studies as the semantic meanings differed between cultures, for example between America and Asia, and between Europe and Asia (Grunert et al. 1995). The values employed in a means-end chain approach, associated with a laddering technique, have been used extensively in a wide range of consumer studies and have been shown to be cross-culturally valid (Valette-Florence 2000).

Reynold and Gutman (1988) used this method to explore reasons why consumers bought particular products. They mentioned that inter-relationships between attributes, consequences and values (A-C-V) were the important focus of the means-end chain model (Gutman 1982). The stronger A-C-V links identified by consumers indicate that they are highly involved and complied with a product (Gengler et al. 1995). There are six levels of the means-end chain, as illustrated in Figure 2.3. The six levels of hierarchy are categorized into two steps: product knowledge and self-knowledge (Mulvey et al. 1994).
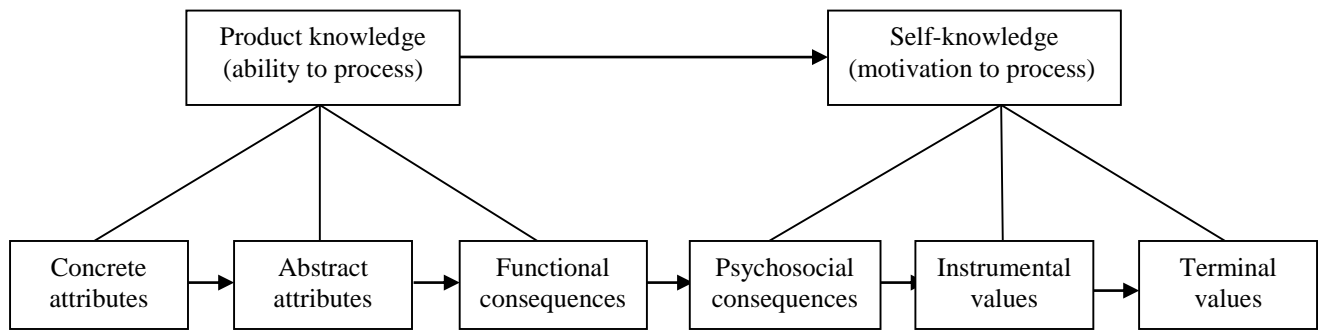
Figure 2.3: The six levels of MEC hierarchy (Mulvey et al. 1994, p. 52).

Boschen and Thelen (1998) provided an overview of the six hierarchy levels. The concrete attributes are the tangible attributes such as colour and weight, which can be measured physically. The abstract attributes are defined as intangible characteristics such as "smell nice" or "pleasant feeling", which are subjective to measure. Peter and Olson (2005) explained that consumers could identify positive consequences that consist of the functional consequences and the psychosocial consequences. Both of them are provided by the attributes. The functional consequences are the tangible outcomes of using a product, while the psychosocial consequences are psychosocial and social outcomes of a product used. Furthermore, there are two types of values in the means-end chain theory. These are the instrumental values and the terminal values. The instrumental values reflect modes of conduct to achieve terminal values as perceived by others (Reynolds and Gutman 1988). The end goal of consumers is the terminal value that relates to the personal view of consumers. An example of consumption behaviour using MEC is given in Figure 2.4.
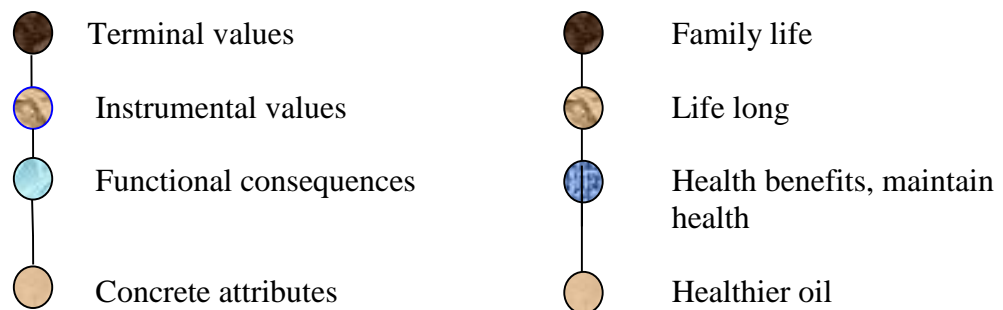
Figure 2.4: The MEC approach applied to locally made extra virgin olive oil (Santosa and Guinard 2011).

The level of consequence satisfaction influences personal values. Consumers tend to purchase a product that can satisfy their values. This concept enables an understanding of

the action and behaviour of consumers. In the means-end chain, the terminal value is the dominant role of consumer motivation in purchasing decisions (Mulvey et al. 1994, Vriens and Hofstede 2000). The personal values emerge if consumers are able to link between the attributes the products have to positive consequences and to attain the desired values. The stronger A-C-V link identified by consumer means that they are involved highly to comply with means-end association. Therefore, it is necessary to understand the consumer personal values to ensure the appropriate policy of local food consumption.

However, some barriers are found that preclude the use of the means-end chain, including the time-consuming, expensive interviews, artificial sets of answers and researcher biases that demand a high level of skill and expertise from interviewers (Veludo-de-Oliveira et al. 2006). Previous studies recorded little discussion about the subject background affected of the usefulness of the MEC procedure. Moreover, MEC theory has been applied only in developed countries and some studies have focused on the interviewer in order to avoid the potential bias of MEC theory. It is still unclear how people in developing countries with diverse ethnic groups and low socio-economic backgrounds can be involved in the use of the MEC data collection procedure. Consequently, it is possible that social, personal and cultural backgrounds may seriously influence the outcomes of the MEC approach.

Indonesia is an archipelago of many islands and is the fourth most populous country in the world. Moreover, this country consists of hundreds of different ethnic groups. In addition, around 60 per cent of the Indonesian people live on Java Island, making it the most heavily populated island in the world. Consequently, it is needed a study to investigate the application of MEC theory to one Asian country, Indonesia.

Many researchers have discussed in detail the MEC theory, examining specific aspects of the theory, including laddering (Grunert and Grunert 1995, Hofstede et al. 1998, Phillips and Reynolds 2009, Reynolds and Gutman 1988, Russell et al. 2004a, Russell et al. 2004b), choosing cut-off levels (Pieters et al. 1995, Reynolds and Gutman 1988), or analysing, interpreting and presenting MEC theory (Aurifeille and Valette-Florence 1995, Botschen and Hemetsberger 1998, Gengler et al. 1995, Gutman 1982, Hofstede et al. 1998, Leppard et al. 2004, Valette-FIorence and Rapacchi 1991, van Rekom and Wierenga 2007), the use of graphic representation (Gengler et al. 1995), and review of MEC theory (Leppard et al. 2004). Kaciak and Cullen (2006, p. 12) stated:

But there is no agreement among researchers as to the way MEC observations should be analyzed.

The wider applications of MEC theory have involved several ways of analyzing, interpreting and presenting the results of laddering data. In this study, a review and application of specific aspects of MEC, namely laddering, content analysis and the interpretation of HVM for understanding the motives of Indonesian consumers who are involved in purchasing local foods is tested through a pilot study and reported in Chapter 4.

2.5 Consumption Situations

Belk (1975b) reported that because there were serious limitations in the ability of personal buyer characteristics to operate as the single factor influencing buying behaviours, the consumption situation was an important factor that could be used to explain variation in consumer purchasing decisions. Belk (1975b, p. 175) emphasized that:

Situational variables can substantially enhance the ability to explain and understand consumer behavioral acts.

When developing the original concept of MEC, Gutman (1982) considered situational consumption, involving the product-use situation, as a factor that might influence consumers' cognitive structure given in Figure 2.5. Gutman (1982, p. 62) simply defined product-use situations as "any situation that involves the use of a commercially available product or services". However, situational consumption has been frequently neglected by researchers when using the laddering underlining MEC theory with low involvement products. This leads to the lack of a link between MEC cognitive structures and actual consumer behaviour (Bech-Larsen et al. 1996).
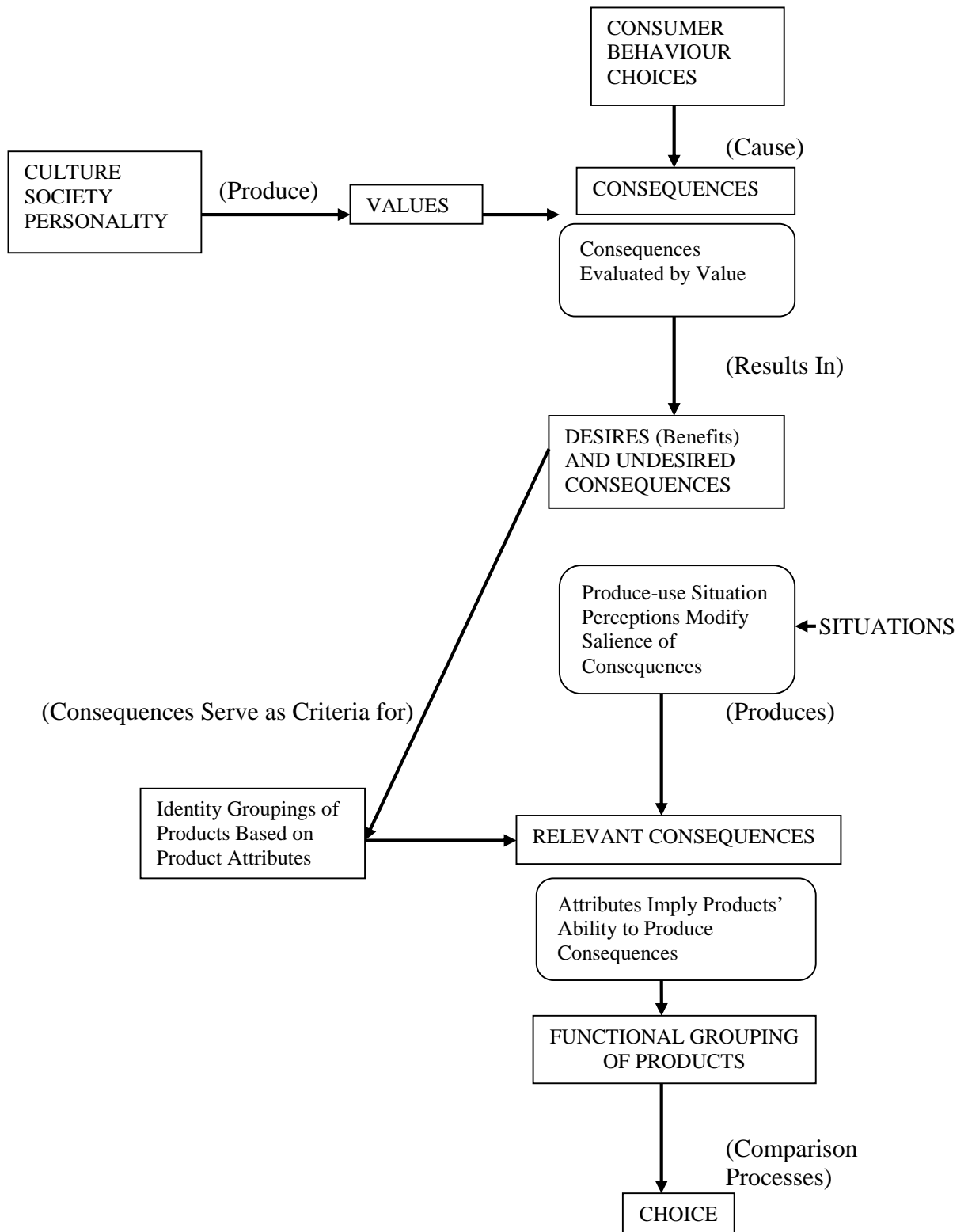
Figure 2.5: The original model for MEC advanced by Gutman (Gutman 1982, p. 62).

There have been few studies that have considered situational conditions which have an influence on consumer behaviour (Bech-Larsen et al. 1996, Hall and Lockshin 2000, Hornik 1982, Marshall and Bell 2003, Quester and Smart 1998). Hornik (1982) investigated three different kinds of situational conditions: (a) physical surroundings (eg. weather), (b) social surroundings (eg. presence of other people), and (c) antecedent states (eg. mood) as independent variables together with personal characteristics and then preference along with their influence and interaction on time, work, necessity, as well as homework and leisure. The findings of this research study showed that situational events affected significantly some activities that increased when moving from obligatory to discretionary activities. Hornik (1982, p. 54) stated that:

> The intention to participate in a particular activity is likely to be modified by situational influences.

Quester and Smart (1998) examined the influences of product involvement of consumption situations on product attributes used by consumers in choosing red wine. They came to the conclusion that the situations interacted with level of involvement, affected attitude that guided purchasing of wine and suggested that:

> Whilst the studies have generally uncovered a relationship between product involvement and aspects of consumer behaviour, many researchers argue that effective segmentation of markets also requires a consideration of the usage situation (p. 220).

Marshall and Bell (2003) conducted a research study with regard to the relationship between eating occasions (lunch, dinner and snack) and their location for British and Australian students. Those factors were not distinct elements that drove the construction of meals and their acceptability, but there were elaborate links between construction of meal and acceptability:

> These does seem to be some general agreement that these eating occasions usually involve a number of different foods, combined and presented in a particular way that is both familiar and meaningful to the participants, and the concept of a meal display some cultural variation (Marshall and Bell 2003, p. 53).

Hall and Lockshin (2000) reported on a study of the analysis of occasions that involved wine purchasing with MEC approach. They suggested that situational consumptions should be taken into account:

> Even though the lack of consideration of consumption situations has been reported by numerous researchers, very few studies have utilized consumption situation as a

basis of market segmentation and little formal study has been undertaken involving consumption situations (Hall and Lockshin 2000, p. 46).

In the absence of the guidelines, the definition of the usage situations has led to various levels of detail in order to outline the situations involved. Belk (1975b, p. 158) viewed the consumer situation as comprising:

> All those factors particular to a time and place of observation which have a demonstrable and systematic effect on current behavior.

An early definition of 'situation' pertains to both time and space. Belk (1975b) classified situational characteristics and presented a taxonomy with the general feature of five groups which were (a) physical surroundings (pertaining to stimulus material surrounding objects such as location, weather, lighting, aroma, sound), (b) social surroundings (other persons present), (c) temporal perspectives (the time dimension unit ranging from a day, to a session, and to a year), (d) task definition (situation in relation to the requirement to choose from a shop), and (e) antecedent states (moods). Feldman and Hornik (1981) classified four exclusive time groupings, namely work, necessities, homework and leisure. However, it is possible to examine eating locations starting from (a) everyday eating (temporal perspective), (b) eating at a restaurant (physical surrounding), (c) eating when travelling, and (d) eating at festive religious events (social surroundings). In this study, the influence of eating occasions (everyday eating, eating at a restaurant, eating when travelling and eating when celebrating a religious festival) toward local food purchasing decisions are examined by using the MEC approach.

2.6 Cultural Background: Ethnicity

Stayman and Deshpande (1989) argued that food choices and food intake pattern were strongly influenced by consumer cultural backgrounds and cultural context. The cultural background, like ethnicity, plays an important role in determining the acceptance or rejection of foods in terms of sensory properties (Valette-Florence 1998). Although Indonesia has hundreds of ethnic groups, the knowledge of consumer behaviour that considers ethnicity backgrounds toward their local foods is very limited. Therefore, this study also investigates what drives consumers to purchase local foods between three main ethnic groups namely: the Javanese, the Sundanese and the Minangese.

2.7 Purchasing motives for different occasions

Some scholars have reported some studies on motives for buying local foods or specific meals for daily diets. For instance, Khan and Prior (2010) examined 148 respondents' perceptions of reasons for purchasing locally grown foods in two urban cities in the United Kingdom (UK), Birmingham and Wolverhampton. 'Freshness', 'high quality' and 'good value of money,' are the most common reasons why they bought local foods. Among female respondents, 'freshness' and 'healthier' are the most popular motives for buying local foods, while male respondents responded that 'high quality', 'freshness' and 'taste better' are the most important concerns for buying local foods. Siriex et al. (2011) reported a study on consumer's trade-off between local, organic, imported and conventional products between Chinese in Shanghai. Consumers tend to buy local products because the local products are much cheaper than organic products. However, they think that local and conventional products give rise to worries about health. Pohjanheimo et al. (2010) examined the food choice motives for having rye bread as daily diets, which are categorised into: 'traditional', 'hedonistic' and 'control' groups of respondents. Traditional consumers' motives for liking bread are 'natural content', 'familiarity' and 'health concerns,' while for hedonistic consumers, 'mood' and 'price' are closely related to their values. A total of 129 African-Americans were asked about their reasons for choosing and eating specific meals. Drawing on empirical data, three main reasons identified include 'convenience', 'appetite' and 'health concerns'. Dietary traditions are also an important consideration as the respondents pointed out. Such traditions are eating with bacon or eggs for breakfast or having ice cream for dinner (Hargreaves et al. 2002).

Prices are still the main reason for providing or buying (local) foods when eating out. Green and Dougherty (2009) examined restaurant owners, retailers, and farmers who rely on local foods. They reported that the most important concerns about developing culinary tourism promoting local foods include 'prices' and 'logistics'. Hargreaves et al. (2002) reported a study of 139 African American women participants investigating their reasons for choosing a specific food when eating out. In addition to 'convenience', 'taste preference' and 'time constraint', food prices are the most salient response among the respondents.

Culinary tourism can be a vehicle for offering varied unique local foods or dishes. Kim et al. (2009) developed a model that examined factors influencing local food

consumption in tourist destinations. This model embraces three main factors: motivation, demography, and physiology. Motivational factors touch upon 'exciting experience', 'escape from routine', 'health concerns', 'learning knowledge', 'authentic experience', 'togetherness', 'prestige', 'sensory appeal' and 'physical environments'. Demographic factors include gender, age, and education. Food neophilia and neophobia are categorised into physiological factors. Tikkanen (2007) reported that physiological needs for food itself are the main visitors' motives for culinary tourism in Finland such as desires and wants to try specific foods or products and go cross-border food shopping. For example, the motives of Finnish people travel to Sweden and Estonia are because of cheaper prices of alcohols and other foodstuffs.

Studies of motives for consuming local foods when celebrating religious festivals remain sparse. However, motives for attending food events in many places have been reported. Travel motivations have been examined for visitors (n=22,806) coming to local food festivals in Northeast Iowa communities. The main motives for attending the festival are to support local producers, try fresh foods, and purchase local foods (Çela et al. 2010). Uysal et al. (1993) examined the visitors' motives for attending a corn festival in South Carolina, USA. They reported five main motives for this, including: 'escape', 'event novelty', 'excitement', 'socialisation' and 'family togetherness'. Similar findings of another survey of 475 visitors attending the south beach wine and food festivals in Miami were also reported. The authors reported seven motives for the first-time visitors to attend the festival. These motives are 'to taste new wine and food', 'enjoy the event', 'enhance social status', 'escape from routine activities', 'meet new people', 'spend time with family' and 'get to know famous wine makers and food experts' (Park et al. 2008). Kim et al. (2010) developed a multidimensional scale to measure visitors' motivations to attend food events. The sample included 305 respondents attending the food event in Southwestern part of the United States. The findings contributed three final instruments: 'knowledge and learning', 'fun and new experiences' and 'relaxation with family'.

2.8 Rural and urban locations

Rural and urban locations are an important factor in the choice of local foods (Brown 2003, Roininen et al. 2006, Weatherell et al. 2003). A study of consumers' concern for perception, farming and buying local foods was reported by Weatherell et al. (2003). Rural residents

tend to give greater attention to 'civic' issues that pertained to a local food system when compared to urban residents. The higher concern for local foods among rural residents can be explained by the fact that rural participants are closer to local food production and engage more frequently with local food communities that produce locally grown foods. A mail survey was conducted in Southeast Missouri in the United States to examine preferences for local foods (Brown 2003). The finding of this research study shows that rural residents give more attention to a preference for local foods, and that they are willing to find sources for their local foods than do urban residents. When exploring consumer perceptions of local foods in Finland that compare rural-based consumers and urban-based consumers, Roininen et al. (2006) reported a similar finding that rural participants showed a greater interest in supporting their local economy than did urban participants. This may have been because rural residents are closer to the production of local foods. Therefore, the local economic issues are more important for rural residents to consider.

Two major constituents of diet are subdivided into staple and non-staple foods. Rice has been found to dominate the Indonesian daily food intake for staple food, and Indonesia has the highest level of rice consumption in the world (IRRI 2012). Delisle (1990) reported that the levels of rice consumption between urban and rural areas in traditional rice countries, even in the capital cities, showed little variation. Although the urban food pattern of consumption for non-staple food is not uniform world-wide, it tends to have a similar pattern in which urban residents are more diversified in their consumption of animal and vegetable products, less affected by seasonal situations, and consume more adequate nutritional products on average when compared to rural food consumption. This pattern is also affected by socio-economic parameters, mainly family income. Food habit has also changed due to rapid urbanization, and an urban lifestyle as well as the wider availability of food products in urban markets. Although urban household consumption varies significantly with respect to different types of food groups, urban people spend a smaller proportion of the total expenditure on the acquisition of foods than do rural people, and this is true across all developing countries (Delisle 1990).

From a study of the pattern of urban food consumptions in some developing countries including traditional rice countries, like Indonesia and Philippines, (Delisle 1990, p. iv) summarised that:

By better adapting domestic agricultural products to the needs and wants of urban consumers, it is possible that a higher share of urban demand for dietary staples (and other food items) might be satisfied from local production.

This idea was endorsed by Feenstra (1997) who reported that one benefit of the local food system was that it created a harmonious urban-rural linkages as this system enabled people from urban areas to access food from farmlands thus creating a food-based community, and encouraging a better farming system and a more environmentally sound community. This system also strengthens the social and cultural interaction among rural and urban people. This raises the issue: what are the motives associated with local food choices and how do these motives vary between urban and rural consumers and between different ethnic groups? These issues are investigated in this study.

2.9 The motivation-based segmentation for local foods

The benefit of market segmentation is to provide subset groups of consumers who have common needs as a target market. The segmentation is really needed if the differences between consumer characteristics exist to deliver effective marketing strategy to a particular target market (Zikmund and Babin 2010). Traditional methods of segmentation consider one or a combination of variables: demographics, geographic, psychographics and behaviours. Demographic characteristics involve measurable and identified population like age, family income to define segments of potential consumers. Some markets are segmented according to psychology and demographic factors in order to better understand groups of consumers that involve lifestyle, values and personality as the basis of segmentation. Geographic segmentation involves broad geographic criteria to categorise consumers like nations, states or countries. Between those factors, purchasing behaviour is believed by scholars to be a better explanation than other traditional methods of segmentation (Kotler and Armstrong 1991). The Means-End Chain (MEC) approach provides an understanding of purchasing behaviour through integrative cognition structures and re-link the attributes, and consequences and values sought by consumers when making purchasing decisions into a hierarchical map. According to the theory, what are the 'true' values sought will be the desire or preference for a certain product in future purchase behaviour. Botschen et al. (1999, p. 39) emphasised that:

Indeed, means-end chain theory has been proposed as ideally suitable for the development of segments.

In this study, MEC approach is employed to elicit the attributes and underlying consequences and values to form market segmentations. The qualitative and quantitative methods used in this study are examined in Chapter 3.

Chapter 3: Methods

3.1 Introduction

This chapter presents the methods of investigation employed in this study, involving both qualitative and quantitative approaches, procedures for selecting respondents, and the interviewing processes during data collection. The usefulness of the MECanalyst tool for the Means-End Chain (MEC) approach that is central to this study is also discussed.

3.2 Qualitative and quantitative approaches

As has been stressed by Daly et al. (1992) that when a particular problem is identified, the researcher must examine different approaches to investigate the problem, to explain different questions, to collect different sets of data and to select specific procedures for analysis. The introductory chapter discusses the complexity involved in employing both qualitative and quantitative approaches that are best suited for a particular research study into public health issues. However, such strategies are also a basic problem when conducting marketing research. Baum (1995, p. 30) stated that in order to find the right method, researchers had to consider the basic questions they sought to answer. A qualitative approach involves an inductive, exploratory and descriptive study to examine a social phenomenon using 'real' and 'deep' information. There are some important aspects of a qualitative approach that need the texture, richness and feeling of the information of sources in order to develop insight to inform phenomenological, process-oriented, and subjective tactics and generalisations (Despande 1983, Neuman 2006). Neuman (2006) explained that qualitative research focuses on information that is rich in words, sentences and symbols. The information is then assembled, semantically grouped, clustered and analyzed. The analyzed words allow the researcher to compare, contrast and derive the best pattern from them. The inductive approach leads to deriving the evidence for both new ideas and generalisations (Wüihrer and Werani 2001). This approach is also process-oriented and concerned with human behaviour (Despande 1983). When very little is known about the topic and the intention of the study is to understand cultural patterns, motivations and attitudes, a qualitative study is a highly appropriate approach in order to explore the research topic and lead to decision making and

policies (Marsland et al. 2001). In 1989, the Association of British Market Research Companies (ABMRC) stated that:

> Prior to any large-scale quantitative study particularly in a relative unknown market, it is strongly recommended that a qualitative phase of research is initially conducted, the main purpose being to understand the vocabulary and language used by customers as well as understanding their motivations and attitudes towards given services, products and usage occasions. The findings of the qualitative research provide invaluable input to the quantitative stage in terms of the line and tone of questioning, and of course the overall structure and content of the quantitative phase (quoted from Marsland 2001, p. 10).

However, when the research requires methodological rigour and accuracy, appropriate data must be gathered at an appropriate time, and a quantitative approach is necessary in order to form a scientific foundation (Walle 1997). Neuman (2006) explained that a quantitative approach involved deductive strategy and was concerned about issues of data, in the form of numbers. Thus design, measurement and sampling became important issues since a deductive strategy emphasises the procedure of prior analysis and subsequent data collection. In this approach research participants were selected using a designed sample drawn from a larger population. A standardised questionnaire and statistical procedures are used to test hypotheses. This approach produces quantified and reliable data in order to ensure the reliability, objectivity and generalisability of the findings (Weinreich 1996). Nonetheless, quantitative research is generally considered not suitable for a study aimed at providing an in-depth understanding of an issue (Marsland et al. 2001).

However, the combination of qualitative and quantitative research approaches will allow researchers to employ a more flexible, integrative and holistic technique of data collection in order to answer a complex range of research questions (Powell et al. 2008). Neuman (2006) p. 151 stated that:

> Qualitatative and quantitave research differ in many ways, but they complement each other, as well.

Wuhrer and Werani (2000, p. 467) also stated that:

> Although there may be situations where either a qualitative or a quantitative approach is sufficient, in many cases it is necessary to combine qualitative and quantitative techniques in order to gain all information necessary for decision making.

In addition, Weinreich (1996) emphasized that:

However, social marketing researchers recognize that each approach has positive attributes, and that combining different methods can result in gaining the best of both research worlds (p. 53).

Harrison and Reilly (2011, p. 9) also stated that:

Implicitly, the marketing disciplines encourage mixed methods research because of the emphasis of rigorous research.

Marsland et al. (2001, p. 14) also suggested that the combination of qualitative and quantitative approaches could improve the trustworthiness of the findings and the value of the study:

Qualitative (informal) and quantitative (formal) methods may be combined in a variety of ways to improve the trustworthiness of survey and experiment findings.

In this study, both qualitative and quantitative approaches are deployed. There are a number of reasons for using this mixed method. Firtsly, a quantitative approach aims to probe into an in-depth understanding of consumers' perceptions of local foods, particularly the local food definition. Secondly, the initial concept developed from a quantitative study is then used in a qualitative study to examine consumers' motives for purchasing local foods by using means-end chain. As Johnson and Onwuegbuzie (2004) suggest, a mixed method is used when the findings from one method is required to complement or strengthen another method. Thirdly, the qualitative findings are also deployed to help categorise scattered consumers into their motives using a quantitative approach. In this stage, a quantitative approach called Decision Segmentation Analysis (DSA) is employed to identify groups of scattered consumers.

3.2.1 The research involving cross-cultural backgrounds

Indonesia is a country with many diverse cultural and ethnic groups. Hines (1993) reported that survey research involving subjects with cross-cultural backgrounds from diverse cultural and ethnic groups presented researchers with a complex problem that involved socio-cultural dimensions within an interview process. These problems may involve linguistic issues as well as conceptual meaning. Hines (1993, p. 729) suggested that:

One way to improve the quality of cross-cultural surveys and to insure that the findings are culturally relevant and accurate is to combine qualitative and quantitative methods.

Although Indonesia has a national language namely 'Bahasa Indonesia', there are at least a hundred local languages. Linguistic barriers occur frequently when interviewers have a limited capacity to speak the local language (Brislin 1986). In this study, it is advantageous for the interviewers to have the capacity of speaking the local language of the person being interviewed. Thus, the language used in this survey is different for each survey area as is shown in Table 3.1.

Table 3.1: The language used in each particular area of study.

The survey areas	Language spoken
Javanese ethnic group	
Yogyakarta city and Purbalingga regency	*Bahasa Indonesia*, 'Kromo' and 'Ngoko' versions of the Javanese language. The Kromo Javanese language is used for elderly persons. It is the very highest and most polite level of Javanese language. The Ngoko Javanese language is used for daily communication with ordinary people.
Sundanese ethnic group	
Bandung city and Tasikmalaya regency	*Bahasa Indonesia* and the Sundanese language
The Minangese ethnic group	
Padang city and Tanah Datar regency	*Bahasa Indonesia* and the Minangese language

Conceptual meaning is also a basic issue in cross-cultural research undertaken within diverse cultural and ethnic backgrounds. Brislin (1986) argued that accurate translation could be improved by carefully translating the source language to the target language and then back to the source language. In this study, interviews were transcribed from the original language such as the source or local language to Bahasa Indonesia.

3.2.2 In-depth interview

Different techniques are required to collect information within the qualitative approach including in-depth interviews, observation and focus groups. The most common qualitative method used in other research studies is the in-depth interview (Walle 1997). Wüihrer and Werani (2001) suggested that in-depth interviews were recommended when it was important

to keep track of individual behaviour related to their attitudes. However, this technique demands experienced and trained interviewers. Means-End Chain analysis (MEC) requires an in-depth interview using face to face questioning to reveal the motivations of consumers to purchase a particular product (Reynolds and Gutman 1988). As Veludo-de-Oliveira (2006) points out, there are some limitations of using a MEC approach, in particular face-to-face interviews called a laddering technique. These involve time-consuming and expensive interviews, pre-determined sets of answers, and researcher biases. This technique requires interviewers to become highly competent in performing data collection or fieldwork and managing extended periods of time spent on generating and completing repetitive questions. The implementation of this technique in a large scale of sample could become costly. To overcome this problem, Vriens and Hofstede (2000) suggest that respondents be purposively recruited to represent a large-scale sample. Artificial sets of answers may emerge if the respondents feel nervous or uncomfortable with the repetitive questions. Some respondents may answer the questions to behave more respectably and intelligently. If the questions are more complicated, and more personal questions, which respondents may decline to answer or dislike, may arise. To tackle these technical problems, structured training in the craft of the technique is badly needed. Doing simulated practice before conducting a real survey is also needed. The researchers' biases are one of the limitations of this approach in relation to the interviewers' capability to simplify attributes, consequences and values variables during the interview sessions which may not accurately represent the respondents' desires and expectations. Appropriate training in introduction to A-C-V that may be in dire need during fieldwork should be provided. In this study, MEC is the central qualitative tactic employed to obtain an understanding of the motivations of Indonesian consumers when purchasing local foods.

3.2.3 Means-End Chain Analysis

According to Reynolds and Gutman (1988) a specific product will be chosen by consumers because they believe that they could achieve a desired value through the attributes of the product and their consequences. MEC theory is related to the attributes (A) and is linked sequentially to the consequences (C) that derive their importance from using the product and by satisfying personal values (V). This produces an A-C-V sequence and that forms a so-called 'ladder'. A Hierarchical Value Map (HVM) is the name given to the graph that is

formed from various ladders, representing the aggregate connection of A, C and V (Reynolds and Gutman 1988). For further details of MEC procedure please refer to Chapter 4.

3.2.4 Qualitative analytical tool: MECAnalyst

The MECAnalyst software package was developed in 2002 jointly by Prof. Raffaele Zanoli, Dr. Simona Naspetti (both from the University of Ancona), Dr. Eva Thelen (The University of Innsbruck), Dr. Gunther Botschen, and the *Institutfür Marketing-Strategieberatung*. This package is used to help researchers, marketing students, practitioners and university staff to carry out market surveys in order to identify consumer cognitive structure for buying a specific product and service. The software also has features in order to create the implication matrix and the HVM linking to MEC theory. Another feature of this package is that it provides for the calculation of the abstractness and centrality indexes using algorithms developed by Bagozzi and Dabholkar (1994) and Pieters et al. (1995).

This software package using the MEC approach has been used widely in research and market surveys of food products such as local foods (Roininen et al. 2006), organic foods and products (Barrena and Sanchez 2010, Naspetti and Zanoli 2009), African wildlife (Radder and Grunert 2009), and vegetable consumption (Kirchhoff et al. 2011). The MECAnalyst software together with the user's guide and the website are beneficial to users in terms of ease of use, the capability of data storage and processing, data coding, graphic interface, and output management. The software is designed with a simple and intuitive interface especially for the first time users. This software also has the capacity store unlimited data. Furthermore, it is easy to modify the data collection procedures and to cluster data. Since this software uses Microsoft Windows TM, the output and results are presented in Microsoft PowerPoint TM and Excel TM making them relatively easy to manage. These features set this software apart from the software that was previously available.

3.3 Quantitative Research

The characteristic feature of quantitative research is to seek the facts and causes objectively in order to understand social phenomena. This approach is outcome-oriented based on so-called "hard" and replicable data (Walle 1997). When the study is to estimate (number, rate, proportion) parameters to represent or to reflect the area under study, a quantitative approach is needed. The most common technique of the quantitative approach is face-to-face

interviews with or without the use of visual elements such as photographs, cards and drawings (Wüihrer and Werani 2001) as shown in Figure 3.1. The advantages of face-to-face interviews are powerful and flexible in terms of providing facts of respondents' understanding about the question interviewers asked (Smith 1991). Other advantages come from visual elements in which these elements allowed interviewers to observe, discuss and record responses. Figure 3.1 provides picture of the cards used in the main study.

Figure 3.1: Cards used in the main study.

Through face-to-face interviews researchers are able to control the interview process and the application of the questions (Wüihrer and Werani 2001). However, this technique has limitations, such as expensive cost for organizing and travelling. Interviewer bias is also a serious problem. These disadvantages can be tackled by constructing and piloting the questionnaire, supervision and detailed briefings and careful planning (Smith 1991). The activities with respect to supervision and detail briefings can be seen in Figure 3.2.

(a) Introduction to primary research to all interviewers: research plans, observations, survey and interviewing procedures.

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(b) Training how to use a digital voice recorder for interviewers.

(c) Practice of the means-end chain technique and general interviewing process before conducting a real survey.

(d) Supervision: feedback and future actions.

Figure 3.2: Training and supervision during data collection.

3.3.1 The stages of research

This study has two stages of research. The first stage is a pilot study, applied to Indonesian consumers who live or are staying in Adelaide. This stage is aimed at testing the MEC procedure to identify the best way to apply this approach for Indonesian consumers in Indonesia. This stage also tests the questionnaire in order to obtain a better version of it prior to application in Indonesia. The local foods questionnaire is developed through the use of the techniques advanced by Aaker et al. (2004) and by using reported studies in order to state the specific questions. The formatting and the reviewing of the draft questionnaire were undertaken through discussions with other researchers, who had conducted similar surveys. The questionnaire was then submitted to initial trial testing among 52 Indonesian consumers in Adelaide, the capital city of an Australian state, and subsequently to a second trial with 13 respondents in a city in Central Java. Some problems were identified and the questionnaire was revised during the pilot study, to address wording, language issues, question ordering, time taken during interview process and the familiarity with the specific terms used in the questionnaire. Screening questions were also asked in order to help select each respondent, who needed to be the person who decided the food to be eaten by each household under study. The second stage is the main study. The interview questionnaire is then applied to the Indonesian consumers in four provinces covering the three major ethnic

groups as well as both rural and urban locations. Figure 3.3 presents respondents' portraits from different areas of the study.

(a) Purbalingga regency   (b) Tasikmalaya regency (the woman with the

black head cover is a respondent)

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(c) Yogyakarta city (the woman is a respondent)

(d) Tanah Datar regency (the woman with a yellow-white t-shirt is a respondent)

Figure 3.3: Respondents' portraits during the main study.

3.3.2 Decision Segmentation Analysis (DSA): a quantitative approach

Schiffman and Kanuk (2010) explained that it was important to use a concept of market segmentation because there was diversity in consumer characteristics, needs and wants. They stated that:

> Market segmentation is the process of dividing a market into district subsets of consumers with common needs or characteristics and selecting one or more segments to target with a distinct marketing strategy (p. 30).

Different market segmentations are considered by marketers and practitioners in order to find the market structure and an appropriate marketing strategy. The first thing to do in market segmentation is to select the most appropriate basis of segmentation. There are nine categories for the basis of market segmentation namely "geographic factors, demographic factors, psychological characteristics, psychographic (lifestyle) characteristics, socio-cultural variables, user-related characteristics, user-situation characteristics, benefit sought, plus hybrid segmentation forms" (Schiffman and Kanuk 2010, p. 35). The output required the use of cluster analysis to provide classified data from initial data that is not initially classified (Punj and Stewart 1983). Since in the survey respondents revealed the consumption occasion and their ethnic background, the data needed to be segmented based on user characteristics (involving consumption situations) and socio-cultural variables (eg. ethnicity).

DSA is a deterministic approach developed by Reynolds (2006) for identifying which clusters exist in MEC data. Philips et al. (2010) noted that in this method, like multidimensional scaling algorithm, a solution is determined by a pre-determined number of clusters and like factor analysis the output was the percentage variance of direct and indirect relationships within the clusters. Reynolds (2006) explained that the entire MEC was used as the appropriate unit measurement to ensure the key cluster segment is represented from the data set. Then the analysis procedure begins with the determination of three values:

1. A minimum threshold value that represents the minimum significant number of direct pair wise connection of at least 50 per cent (default of 10).
2. The number of desired clusters in the solution (2-9).
3. The maximum number of codes that may be included in a chain (4, 5 or 6).

Multiple runs are made involving different numbers of clusters, yielding clusters that represent the respective connections. The final DSA solution is determined by the amount of additional variance that accounts for the next highest cluster size. Typically, if the amount of additional variance does not account for 6-8 per cent, the last cluster will be excluded. The sensitivity analysis is then conducted to illustrate the key DSA statistics namely per cent of the ladder (%L). This parameter leads to selected clusters of a stable and internally consistent solution.

3.4 Data collection procedure

The subject of this study is based on Indonesian consumers of local foods who are food deciders of households and who are above 17 years of age. This study follows two steps: pilot study and main study. The subjects of the pilot study are Indonesian consumers of local foods who live or stay in Adelaide, and the study is reported in Chapter 4. The subjects of the main study are respondents selected in order to consider ethnicity, rural-urban location and consumption situations. Stayman and Despande (1989) argued that cultural background, such as ethnic group, plays an important part in influencing the acceptance or rejection of foods based on sensory properties. As Indonesia comprises at least a hundred ethnic groups, data gathered from certain major ethnic groups are extremely important. The three major ethnic groups in Indonesia, namely Javanese, Sundanese and the Minangkabau ethnic groups, are chosen for this study. The data of ethnic groups can be used to assess,

evaluate and plan new programs of local food policies. Moreover, previous research with respect to the influence of rural-urban locations in the choice of local foods in non-Asian countries has shown that there is a trend for rural residents to pay more attention to their local foods than do urban-based consumers (Brown 2003, Roininen et al. 2006, Weatherell et al. 2003). Furthermore, previous research in food choice frequently neglected the consumption situations as an important factor in explaining why consumers chose particular products (Bech-Larsen et al. 1996, Belk 1975a). The original Gutman model of an MEC study also proposed situation consumption as a major factor in food choice (Gutman 1982). Therefore, in this study consumption situations and ethnicity as well as rural urban locations are considered as key factors for each ladder.

3.4.1 Consumption Situations

The consumption situations involved in this study consist of four situations that are associated with previous literature (Belk 1975b, Hornik 1982).

1. The first consumption situation relates to a temporal perspective: preparing breakfast or lunch and dinner for the family at home during the week. This is emphasised as being the most common situation for which a family buy fresh food.

2. The second usage situation relates to social surrounding: eating at a restaurant (not a fast food restaurant) with family, close friends or colleagues for tightening relationships or friendship. It is emphasised as being common in Indonesia to treat family, friends and colleagues by eating out.

3. The third consumption situation relates to a physical surrounding: travelling, which involves food as a tourist attraction or to buy food as a souvenir or to buy food within agro-tourism.

4. The fourth consumption situation relates to a social surrounding: celebrating a religious festival such as fasting month, *Idul Fitri*, Christmas and other important days.

3.4.2 Main Study: Local food consumers in Indonesia

The sampling of respondents involves a multistage design. In this case, Indonesia is the country that provides the target population of the study. At the first stage, a cluster sample of Indonesian adults is selected. Ethnicity is chosen as the clustering characteristic. Three dominant ethnic groups Javanese, Sundanese and the Minangkabau are chosen as the largest

and most appropriate ethnic groups in Indonesia. At the second stage, a rural area and an urban area for each ethnic group are selected. In the next step, three sub-districts for each rural area and urban area are selected by using random sampling procedures. Then, a village from each sub-district is chosen randomly. Finally, a residential block is chosen randomly from each village selected. Figure 3.4 shows the locations of the six main clusters in a map of Indonesia.

www.indonesia-tourism.com/map/indonesia-map.html

Figure 3.4: Location of six main sample clusters in Indonesia.

The six main clusters formed in this way were as follows:
The Minangkabau ethnic group (West Sumatra province):
(1) **Padang city** (urban area), (2) **Tanah Datar regency** (rural area)
Sundanese ethnic group (West Java province):
(3) **Bandung city** (urban area), (4) **Tasikmalaya regency** (rural area)
Javanese ethnic group (Central Java and Yogyakarta provinces):
(5) **Yogyakarta city** (urban area)**,** (6) **Purbalingga regency** (rural area),

The classification of urban areas in Indonesia refers to one or more of the criteria mentioned by the Central Bureau Statistics (2005 p. 10):

1. The area has a population density not less than 5000 persons per square kilometre.

2. Not more than 25 per cent of the population works in agricultural fields.

3. The area has 8 or more public facilities related to the urban characteristics areas such as banks, post offices, hospitals and schools.

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The characteristics of urban and rural areas selected are presented in Table 3.2.

Table 3.2: The population density and the percentage of agricultural areas in the urban and rural areas selected.

	Population density (persons/sq km)	The percentage of agricultural area (%)
Java ethnic:		
Yogyakarta city	**1,897** [1]	**3.8** [1]
Purbalingga regency, Central Java province	1,065 [2]	56.7[2]
Sundanese ethnic:		
Bandung city, West Java province	**13,929** [3]	**0.0**[3]
Tasikmalaya regency, West Java province	757 [4]	74.0[4]
Minangese ethnic		
Padang city, West Sumatra province	**1,118** [5]	**12.6**[5]
Tanah Datar regency, West Sumatra province	257 [6]	70.0[6]

1 yogyakarta.bps.go.id, www.krjogya.com, www.pusatdataperadilan.org
2 regionalinvestment.com, majalahpadi.blogspot.com
3 *www.tempointeraktif.com*, www.scribd.com/doc/47576641/pdrb-***bandungkota***
4 prssnipriangan.com/potensi_kab_tasikmalaya, bakorpembang-wilprog.jabarprov.go.id agricultural area
5 *rangminang.web.id/**2010**/06/gambaran-umum-wilayah-**kota**-**padang**/*
6 *www.bps.go.id/hasilSP2010/sumbar/1300.pdf, www.wikipedia.org*

Information is obtained from respondents by using semi-structured interviews. The first section of the survey sought information concerned with demographic characteristics. These include gender, age, education, job, family income, total household size, family size, length of time living in this village, and questions regarding involvement in growing food and farming. These questions provide links with several previous research studies in order to obtain information on marker variables to assess the adequacy of the sample (Brown 2003, Chambers et al. 2007, Gallons et al. 1997, Schneider and Francis 2005, Wilkins et al. 2000). New demographic data and response frequencies are translated into percentages and are compared statistically using nomographs (a procedure advanced by Oppenheim, 1992). A significant difference between two percentages at the 5 per cent probability level is indicated by an asterisk (*) (Oppenheim 1992, p. 294-97). There are some benefits of using monographs. Firstly, if a study has a large number of percentage, researches do not need to

go back to the raw data of frequencies to calculate t-test value. Secondly, nomographs provide a simple way to determine the statistical significance of difference directly from percentage figures. Thirdly, this alignment chart also provides a level of significance level varying from 1, 5, and 10 per cent. Fourthly, nomographs have been used widely in many areas of studies published elsewhere (Oppenheim, 1992). However, a nomograph has a flaw in precision for a small number of sample size (Oppenheim, 1992). To cope with this, the present study deploys a large number of data (n=533). Therefore, precision is not the case in the study.

Research and graduate students from the University of General Soedirman, Purwokerto, Central Java province administered the questionnaire in face-to-face interviews during the period July to October, 2011. A token amount of one Australian dollar was given as a souvenir to each respondent for providing her/his time to respond to the questionnaire. A total of 533 useable responses were available after cleaning and editing, with a response rate of 93 per cent of the designed sample. Table 3.3 shows the respondent characteristics in the area under study and a comparison to national household characteristics.

Table 3.3: Characteristics of survey respondents compared to national household characteristics.

Characteristics	Personal			Home and Family			Status and location of family		
Total household N=533	N	%	Stat[a]		N	%		N	%
Gender				**Household size (people)[b]**			**Marital status[d]**		
Female	493	92.5	50.3*	1-2	33	6.3	Married	460	86.4
Male	40	7.5	49.7*	3-4	219	41.1	Separated	7	1.3
Education				5-6	195	37.6	Widowed	43	8.0
Primary School	127	23.9	38.6*	7-8	60	11.3	Single	17	3.1
Junior High School	112	21.0	34.6*	9-10	22	4.1	Divorced	6	1.1
Senior High School	187	35.0	22.0*	11-12	4	0.8			
College/University	107	20.1	5.4*						
Age (years old)				**Monthly family income (million IDR/month)[c]**			**Living in the city/village (years)[d]**		
≤ 10	0	0	19.3	≤ 2	304	57.0	≤ 10	93	17.3
10 < and ≤ 20	0	0	18.3	2< – ≤4	156	29.2	10 < and ≤ 20	82	15.4
20 < and ≤ 30	55	10.2	17.3	4< – ≤6	37	7.0	20 < and ≤ 30	74	13.9
30 < and ≤ 40	179	33.6	16.1*	6< – ≤8	10	1.9	30 < and ≤ 40	103	19.4
40 < and ≤ 50	166	31.2	12.9*	8< – ≤10	8	1.5	40 < and ≤ 50	98	18.5
50 < and ≤ 60	90	16.9	8.4*	10>	18	3.4	50 < and ≤ 60	58	10.8
60 < and ≤ 70	34	6.4	4.5				60 < and ≤ 70	21	3.9
70>	9	1.7	3.1				70>	4	0.7
Employment							**Household type[d]**		
Entrepreneur	117	22.0	19.4				Single person	85	15.6
Not paid labour	6	1.1	20.0*				Married-couple family	277	52.0
Paid labour	12	2.2	3.0						
Employee	56	10.8	30.1*				Others family	158	30.0
Agricultural worker	36	6.8	5.4				Others non family	13	2.4
Non agricultural worker	15	2.4	4.7*						
Work in family	291	54.7	17.4*						

*) A significant difference between two percentages at the five per cent level of probability is indicated by an asterisk (*)
[a]The percentage of census data was calculated from statistics data (bps.go.id).
[b]National average household = 4 people.
[c]National average family income = 1.34 million IDR/month.
[d]National average data are not available.

3.5 MEC procedures employed

Soft laddering is chosen in this study in the use of a triadic sorting technique. Respondents are provided with a picture of three sets of products: local, national and imported foods. Distinctions between the procedures are elicited from individual respondents based on meaningful differences between the sets of food products. Then laddering is generated by asking the question "Why is this element important for you?" All interviews are recorded and transcribed. A series of codes for attributes with respect to the level of values are constructed using content analysis procedures (Kassarjian 1977, Reynolds and Gutman 1988). An implication matrix of all pair-wise connections is obtained by using a certain cut-off level to allow only the most frequently chosen links by respondents to be included in the

Hierarchical Value map (HVM) which allows the creation of HVM. Network analysis approach is chosen in order to interpret the HVM. The detailed discussion of specific aspects of MEC approach that is used in the main study is examined through a pilot study and is presented in Chapter 4.

Chapter 4: The Means-End Chain (MEC) approach to reveal consumers' motivation for buying local foods: A pilot study

4.1 Introduction

This chapter focuses on the specific aspects of the Means-End Chain (MEC) approach, namely laddering methods of administration, content analysis procedure, generating a Hierarchy Value Map (HVM) and HVM interpretation. This chapter is presented as a manuscript that is ready to submit.

4.2 Using means-end chain analysis to reveal consumers' motivation for buying local foods: An exploratory study

Structured Abstract

Purpose - This article utilises and discusses specific aspects of Means-End Chain (MEC) analysis for understanding of the motives of Indonesian consumers who are involved in purchasing local foods.

Design/methodology/approach -The MEC theory is used as a measure of attributes, consequences, and values of locally produced products involving specific aspects of this theory namely laddering methods of administration, content analysis procedure, constructing and interpreting Hierarchy Value Map (HVM).

Findings - The results of the study indicate that MEC approach is a powerful method to reveal consumer motivations of local foods when associated with the various cultural groupings identified by the study, particularly between the Javanese and the non-Javanese consumers.

Research limitation/implication –Multiple raters are needed to improve a better level of methodological rigour of content analysis procedure. This also can avoid a potential bias source arising from the researchers who extracted the themes from the interview transcripts.

Practical implications – This study offers a practical implication and source of knowledge for other future studies and policies in term of (a) a new approach for understanding the motives behind purchasing local foods for Indonesia consumers, and (b) developing new categories of attributes, consequences and values of local foods.

Originality/value - This introductory study examines the specific aspects of MEC theory to identify Indonesian purchasing motives of local foods which has not been done comprehensively, and that provides comprehensive results for the Government and individual businesses to use.

4.2.1 INTRODUCTION

The Means End Chain (MEC) theory has been applied frequently as an approach to understand perceptions and why consumers choose specific food products in marketing including beverages (Gutman 1984), mother infant feeding choices (Gengler et al. 1999), genetically modified products (Bredahl 1999, Grunert et al. 2001), local foods (Roininen et al. 2006), different kinds of pork (Lind 2007), functional foods (Krystallis et al. 2008, Urala and Lähteenmäki 2003), organic foods (Baker et al. 2004, Barrena and Sanchez 2010, Fotopoulos et al. 2003, Makatouni 2002, Naspetti and Zanoli 2009), wine (Hall and Lockshin 2000) and vegetable consumption (Kirchhoff et al. 2011). MECs have also been identified as a useful method to reveal drivers of consumers' food choices in the United States (Gengler et al. 1995, Grantham 2007, Gutman 1984), many European countries including the United Kingdom (Padel and Foster 2005), Denmark (Bech-Larsen et al. 1996), Sweden (Lind 2007), Belgium (Bonne and Verbeke 2006), Finland (Roininen et al. 2006), Greece (Fotopoulos et al. 2003, Krystallis et al. 2008), Spain (Barrena and Sanchez 2010), and in Australia (Kirchhoff et al. 2011). This method was also used to compare the motivation of food choice between groups of consumers in different countries (Baker et al. 2004, Grunert 1997, Grunert et al. 2001, Valette-Florence et al. 2000), and throughout European countries (Bredahl 1999, Naspetti and Zanoli 2009).

According to Reynolds and Gutman (1988), a specific product will be chosen by consumers because they believe that they can achieve a desired value through the consequences provided by the attributes of the product. MEC theory is related to the attributes (A) and is linked sequentially to the consequences (C) that derive their importance of the use of the product by satisfying personal values (V), produces in an A-C-V sequence and forms a so called 'ladder'. A Hierarchical Value map (HVM) is the name given to the

graph that is formed from various ladders, representing the aggregate connection of A, C and V (Reynolds and Gutman 1988). However, some barriers are found that precluded MEC use including time-consuming, expensive interviews, artificial sets of answers and researcher biases that demand a high skill of expertise from interviewers (Veludo-de-Oliveira et al. 2006). Previous studies have recorded little discussion about whether the backgrounds and subjects from developing countries, affects the usefulness of the MEC procedure. MEC theory has previously almost exclusively been applied only in developed countries, and some studies have focused on the interviewer in order to avoid the potential bias of MEC theory. It is still unclear how people in developing countries, having diverse ethnic groups can be involved in the use of the MEC data collection procedure. It is possible that social, personal and cultural backgrounds may seriously influence the outcome of the MEC approach. Therefore, the first aim of this study is to utilize a MEC approach for understanding the motives behind purchasing local foods for Indonesian consumers.

Many researchers have discussed the details of MEC theory, examining specific aspects of the theory including laddering (Grunert and Grunert 1995, Hofstede et al. 1998, Phillips and Reynolds 2009, Reynolds and Gutman 1988, Russell et al. 2004a, Russell et al. 2004b), choosing cut-off levels (Bagozzi and Dabholkar 1994, Pieters et al. 1995, Reynolds and Gutman 1988), or analysing, interpreting and presenting MEC theory (Aurifeille and Valette-Florence 1995, Botschen and Hemetsberger 1998, Gengler et al. 1995, Gutman 1982, Hofstede et al. 1998, Leppard et al. 2004, Valette-FIorence and Rapacchi 1991, van Rekom and Wierenga 2007), graphic representation (Gengler et al. 1995), and review of MEC theory (Leppard et al. 2004). However, Kaciak and Cullen (2006, p. 12) stated:

> *But there is no agreement among researchers as to the way MEC observations should be analysed.*

The wide application of MEC theory involves several ways of analysing, interpreting and presenting the results of laddering data. Therefore, the second aim of this paper is to discuss laddering, content analysis, and the interpretation of HVM that underlies MEC theory for understanding of the motives of Indonesian consumers who are involved in purchasing local foods.

4.2.2 LITERATURE REVIEW

4.2.2.1 Laddering methods of administration

Laddering has been named as a technique, highlighting a series of guidelines to be followed during primary data collection through interviews in the context of MEC theory (Phillips and Reynolds 2009, Reynolds and Gutman 1988, Veludo-de-Oliveira et al. 2006). Reynold and Gutman (1988, p. 12) stated:

> *Laddering refers to an in-depth, one-on-one interviewing technique used to develop an understanding of how consumers translate the attributes of products into meaningful associations with respect to self, following means-end theory.*

This method of laddering has been applied to operationalise MEC theory with respect to its capability to elicit hierarchical constructs of A-V-C in sequential form (Phillips and Reynolds 2009, Reynolds and Gutman 1988, Veludo-de-Oliveira et al. 2006). Philip and Reynolds (2009, p.85-86) have argued that some fundamental assumptions are required to obtain hierarchical networks of meaning from ladders generated from respondents' interviews. Firstly, ladders are generated from preferences and meaningful choices. Then, respondents need to think deeply prior to responding by asking "why is that important to you" questions. After that, complete ladders are achieved from the collection of respondent responses consisting of attributes (A), consequences (C) and values (V). It is necessary to ensure that interviewers obtain A,C,Vs in a given ladder and that no levels of abstraction are out of sequence or missed. The last assumption is that an appropriate concept code should be developed that should reflect accurately the level of meaning involved.

There have been two laddering methods of administration that have commonly been used by researchers in several MEC studies published in scholarly journals, namely 'soft' and 'hard' laddering approaches (Grunert and Grunert 1995). Soft laddering is the original and common method of administration which employed individual face-to-face and semi-structured interviews (Leppard et al. 2004). Consumers are prompted to produce a 'ladder' by using a specific question, such as, "why is the attribute important for you". By this method, it was hoped that respondents will reveal the connections between the attributes that the products have with respect to the consequences of product-use and end in values. When written questionnaires are used to obtain information from respondents, it is called 'hard

laddering'. The information obtained can be based on pencil-and-paper or computerised questionnaires and are an alternative method for uncovering the level of abstraction in the context of the MEC approach (Reynolds and Gutman 1988, Russell et al. 2004b). The advantages and challenges of hard and soft laddering methods of administration are shown in Table 4.1.

Table 4.1: The advantages and challenges of soft and hard laddering methods of administration linked to MEC theory.

Type of laddering	Advantages and challenges
Soft laddering (based on pen and paper)	**Advantages** More linkages were produced between the levels of abstraction (Russell et al. 2004a, p. 545) Would uncover a complex pictorial representation of how consumers perceived and linked the A-C-V (Russell et al. 2004a) Produced higher frequency of attributes and consequences (Botschen and Hemetsberger 1998) **Challenges** Required high skill of expertise by the interviewers, time consuming, expensive interviews (ter Hofstede et al. 1998, Veludo-de-Oliveira et al. 2006), artificial sets of answers, simplistic analysis of results (Veludo-de-Oliveira et al. 2006) and researcher bias (Veludo-de-Oliveira et al. 2006, Botschen et al. 1999)
Hard laddering (based on computer or paper-and pencil)	**Advantages** Produced more ladders (Grunert and Grunert 1995) Efficiency in data collection (quicker and cheaper) (Grunert and Grunert 1995, Botschen et al. 1999). Suitable to investigate the strong links within the linkages (Russell et al. 2004b). Minimised researcher influence (Grunert and Grunert 1995, Veludo-de-Oliveira et al. 2006). **Challenges** The consistency of coding interpretation among respondents was questionable. There was possible effect bias for abstract concepts and cross-cultural application. There was potential of missing levels of abstraction since the only specific coding was provided to respondents to be selected. Since laddering was a recall recognition task, this technique might result in fatigue and boredom (Reynolds 2006).

The application of the laddering method of administration has varied between researchers. Philip and Gutman (2009, p. 85) stated:

This is a particular concern because, as with precoded and open-ended survey questions, it is possible that "hard" and "soft" laddering approaches will yield

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different results and researchers using different approaches may not draw the same
conclusions when investigating a similar research question.

Complexity is an important factor to be considered in choosing method of administration with respect to laddering (Grunert and Grunert 1995, Russell et al. 2004b). In this study, a routine and habitual activity, namely 'the motives of Indonesian consumers behind purchasing local foods', is selected since this research study emphasizes the application of MEC theory with respect to consumers with a developing country background. Food purchases is a habitual and routine activity but with the increasing encroachment of processed foods through mass retailers such as supermarkets, are local food choice preferences being modified or are the attributes of locally grown products sufficient to maintain demand. Therefore, the aim of the study is to identify the type of laddering methods of administration for Indonesian consumers of local foods.

4.2.2.2 Content analysis

Content analysis has been argued to be a scientific analysis that evaluates systematically all forms of communication messages (Kolbe and Burnett 1991). A guide to the methodological benchmarks for consumer behaviour research is offered by Kassarjian (1977). According to Reynolds and Gutman (1988), the first step of content analysis is to code the complete interview recording of respondents and then to develop a set of master codes that represents levels of hierarchy. Subsequently, an individual summary code for each respondent is developed. Very broad coding in the content analysis procedure means that too much meaning is lost. Rereading and extensive discussion is one way of dealing with this problem.

Boschen and Thelen (1999) published an overview of the levels of hierarchies. The concrete attributes are tangible attributes such as colour and weight, which can be measured physically. The abstract attributes are defined as intangible characteristics such as 'smell nice' or 'pleasant feeling'. They are subjective but can still be measured. According to Gutman (1982, p. 61), consequences refer to "*any results (physiological or psychological accruing directly or indirectly to the consumer (sooner or later) from his or her behaviour*". The functional consequences are the tangible outcomes of using a product, while the psychosocial consequences are psychosocial and social outcomes arising from the use of a

specific product. The level of satisfaction as a consequence influences personal values. There are two types of values: 'instrumental' values and 'terminal' values. The instrumental values reflect modes of conduct to achieve terminal values as perceived by others (Reynolds and Gutman 1988). The end goal for the consumer is terminal values that are related to the personal views of the consumers (Prescott et al. 2002). This concept provides an understanding of the action and behaviour of consumers. In the means-end chain, the terminal value has a dominant role of consumer motivation in purchasing decisions (Vriens and Hofstede 2000). The personal values emerge if consumers are able to link the attributes that the products have with the positive consequences and lead to the attainment of the desired values. The stronger the A-C-V link identified by consumers means the more highly involved they are and the more likely that they comply with a means-end association (Gengler et al. 1995). The second aim of this study is to identify attributes, consequences and values that are related to local foods.

4.2.2.3 Hierarchy Value Map (HVM)

HVM has been the popular approach for analysing laddering data (Reynolds and Gutman 1988). Once, all individual matrixes have been finalized, the numbers of direct and indirect relationship are assigned to a Summary Implication Matrix (SIM). The SIM displays the number of occasions on which each element in a given row lead to each other element in a square matrix, usually between 30 to 50 codes (Reynolds and Gutman 1988). The direct relationships are 'implicative relations among adjacent elements' (Reynolds and Gutman 1988, p. 20), whereas the indirect relationships are 'the connections among elements when there is another element between them' (Veludo-de-Oliveira et al. 2006, p. 634).

The output of MEC studies are a tree-like network diagram called an HVM as a graphical representation of an aggregate map of cognitive structures (Reynolds and Gutman 1988). The HVM forms from an aggregate matrix that is constructed by connecting the chain and considering the number of the linkages among elements.

To construct HVM requires choice of the cut-off level. Reynold (2006, p. 450) stated that:

> *This required choice of the cut-off level for this deterministic type of analysis is obviously quite problematic in the sense that the exact same set of laddering data*

can result in different HVM representation, depending upon the research analyst's decision.

4.2.2.4 Interpretation of HVM

A HVM is formed by various ladders which represent the relationships of all attributes, consequences, and values related to the products. To determine the perceptual presentations, intra-chain relationships will be summarised and evaluated (Gutman and Reynold, 1988 (page 23-25) for details). Table 4.2 presents some methods for analysing and interpreting HVM.

Table 4.2: Some methods for analysing and interpreting HVM

Approach	Findings
Consumer categorisation processes (Gutman 1982)	The categorization is based on the similarity of consumer distinction and in distinguishing among them by how they vary among elements (Gutman 1982)
Clustering of individual code elements (Valette-FIorence and Rapacchi 1991)	**Limitations** In some clusters, the levels of distinction (attributes, consequences and values) have too many or missed items represented (Aurifeille and Valette-Florence 1995, p. 269). Difficulties of obtaining information for the number of ladders for each cluster (Aurifeille and Valette-Florence 1995). Failed to capture the combination of linkage strengths across the entire MEC (Reynold, 2006).
Clustering the chains based on Multidimensional scaling (MDS) (Aurifeille and Valette-Florence 1995)	**Advantages** Represented the frequency of ladders in chains for determining the dominant MEC chains (Aurifeille and Valette-Florence 1995). **Limitations** Reynolds (2006, p. 454) noted that this method "*requires several arbitrary choices to be made by the researcher, making it difficult for other researchers to evaluate and, most importantly, independently replicate*".
Zalman Metaphor-elicitation Technique (ZMET) can be used to elicit and map consumer knowledge structures (Christensen and Olson 2002)	The several rules of thumb to read a hierarchical cognitive structure map are by looking for central constructs, the constructs are linked to several other constructs, looking for the overall end state, and looking for a missing construct (Christensen and Olson 2002). So, the advantages of this approach are considering the frequency of linkages, structural relationships and end values.
Comparison between HVM cognitive structures to three different data reduction methods, namely Multidimentional Scaling of the Summary Implication Matrix (MDS-SIM), Multiple Correspondence Analysis of Ladder Matrix (MCA-L), and Canonical Correlation Analysis of ladder matrix (CCA-L) (Kaciak and Cullen 2006)	Kaciak and Cullen (2006) concluded that MDS-SIM produced results that best match to HVM cognitive structures. The combination of HVM and MDS-SIM approaches are able to assist researchers for market segmentations.
Network analysis approach This theory uses complexity and organization concepts to compare cognitive schemas. The complexity can be measured by the number of linkages within the schemas and organization can be assessed by a centrality approach. Abstractness is another additional properties which referred to the degree to which an element served as a target or end of cognition (Bagozzi and Dabholkar 2000)	

Indonesia, a subject in this study, is an archipelago of many islands and a multi-ethnic society that consists of approximately a hundred ethnic/sub-ethnic groups. The

Javanese group is the largest ethnic group in Indonesia and made up forty one per cent of the Indonesian population in 2000. They are concentrated on Java Island but millions of them also have migrated throughout Indonesia. Moreover, around 60 per cent of Indonesian people live on Java island, making it the most heavily populated island in the world (Suryadinata et al. 2003). Although Indonesia is the fourth most populous county in the world, the knowledge of consumer behaviour toward their local foods is very limited.

Thus, this paper aims to investigate the MEC theory as applied to one Asian country, Indonesia which has a great diversity of ethnic groups with different personal, social and economic backgrounds when compared to most developed countries. Particularly, the aims of this study are to obtain knowledge with regard to a hierarchical system of attributes, consequences and values, and to understand the complexity of ladders between the Javanese ethnic groups as the dominant ethnic group in Indonesia versus the non-Javanese people.

4.2.3 METHODS

In order to understand the appropriateness of MEC theory applied to Indonesian consumers of local foods, some research questions are formulated.

4.2.3.1 Research questions

1) Are the soft laddering methods of administration is useful to reveal the motives for purchasing local foods?
2) What are the attributes, consequences and values that are related to local foods for Indonesian consumers?
3) Are the ladders of consumers who come from Java Island more complex than the ladders of consumers who come from outside Java Island?
4) Which analysis can be used to interpret the HVM of local foods?

4.2.3.2 Sampling

Participants are 52 Indonesian consumers comprising of the Javanese and non-Javanese consumers of local foods who are living in Adelaide. The snowball technique is chosen to select respondents for practical reasons. They are selected on two critical characteristics, namely (a) food making deciders (definition of 'food decider' refers to Schiffman and Kanuk, 2010, p. 353) and (b) above 17 years old. These two characteristics

are used to ensure that the respondents understand the topic that the interviewers addressed during interview schedules. The respondents are heterogeneous with respect to the island where they come from, gender, age, marital status, educational level attained, visa types held, and how long they are living in Adelaide, as shown in Table 4.3. Most respondents are female, mature age, high education level, less than 5 years living in Adelaide and family income between 2000 to 4000 AUD per month. The interviews range in time taken from 45 minutes to 2 hours in a place selected by respondents (at home, in the office, at a cafe, or in the mall) during October to November 2010. A souvenir costing 5 Australian dollars (AUD) is provided for each respondent for her/his contribution to this study. The response rate of 93 per cent is achieved.

Table 4.3: Demographic characteristics of survey respondents within the pilot study.

Characteristics	Personal			Characteristics	Status and Family	
	N	%	Stat [a]		N	%
Consumer originality				**Visa types held**		
Java island	31	59.6	59	Student	30	57.8
Outside Java island			41	Permanent resident	9	17.3
Sumatra	13	25		Visitors	5	9.6
Kalimantan	4	7.7		Temporary business	5	9.6
Sulawesi	1	1.9		Visiting academic	2	3.8
Maluku/Nusa Tenggara	3	5.7		Special program	1	1.9
Gender				**Marital status** [b]		
Male	19	36.5	50.3	Single	5	9.6
Female	33	63.5	49.7	Married	46	88.5
				Widow/divorced	1	1.9
Age (years old)				**Living in Adelaide (years)**		
≤ 30	11	21.2	54.9	≤ 5	44	84.6
30< and ≤ 40	20	38.5	16.1	5< and ≤ 10	3	5.6
40< and ≤ 50	13	25.0	12.9	10< and ≤ 15	1	1.9
50< and ≤ 60	7	13.5	8.4	15< and ≤ 20	1	1.9
60< and ≤ 70	1	1.9	4.5	20< and ≤ 25	2	3.8
> 70			3.1	25< and ≤ 30	0	0
				30< and ≤ 35	0	0
				35< and ≤ 40	1	1.9
Educational level attained				**Family income (AUD/month)** [c]		
Primary School			38.6	≤ 2000	7	13.5
Junior High School			34.6	2000< and ≤ 4000	28	53.8
Senior high School	3	5.8	22.0	4000< and ≤ 6000	11	21.2
College/university			5.4	6000< and ≤ 8000	3	5.8
Undergraduate	19	36.5		8000< and ≤ 10000	2	3.8
Masters degree and professional program	20	38.4		10000< and ≤ 12000	1	1.9
Doctorate	7	13.5				
Post Doctorate	2	3.8				
Professor	1	1.9				

[a] The percentage of census data are calculated from statistical data available at bps.go.id.
[b] National average data are not available
[c] National average family income based on 2010 data was 1.34 IDR/month or equal to 141 AUD/month at currency level 1 AUD = 9500 IDR

4.2.3.3 MEC procedures employed

Soft laddering is chosen in this study in the use of a triadic sorting technique. Respondents are provides picture of three sets of products: local, national and imported

foods. Distinctions are elicited from individual respondents based on meaningful differences between sets of food products. Then laddering is generated by asking the question "Why is this element important for you?" All interviews are recorded and transcribed. A series of codes for attributes to the highest level of values is constructed using content analysis procedures (Kassarjian 1977, Reynolds and Gutman 1988). An implication matrix of all pair-wise connections is obtained by using a cut-off level of four to allow only the most frequently chosen links by respondents to be included in HVM and then a HVM in this way is created. The network analysis approach is chosen in order to interpret the HVM.

4.2.4 RESULTS AND DISCUSSION

4.2.4.1 Ladders and chains

Although, several research studies of local foods have revealed meaningful choices, underlying attributes, consequences and values with respect to MEC theory (for example: Lind (2006) and Roininen et al. (2006), they may differ considerably from Indonesian consumers as they involve personally and socially different views and beliefs. Thus soft laddering is employed in this study since this method offers considerable consumer involvement and cognitive effort in order to recall personally meaningful abstraction by the consumers.

Russell et al. (2004b, p. 573) defined a ladder as *"one's participant sequence of responses from attribute to a higher level of abstraction"*. Ladders are then constructed using several individual ladders to form a chain (Reynolds and Gutman 1988). One way of measuring the complexity of a MEC structure is by counting the number of element per ladder and the number of ladders per respondent (Russell et al. 2004a). Table 4.4 presents the complexity of a MEC structure for choosing local foods.

Table 4.4: T-test differences of the means of number of ladders and ladders generated by participants.

The complexity of MEC structure	Consumers from Javanese ethnic group	Consumers from non-Javanese ethnic groups
Proportion of respondents (%)	59.6	40.4
Mean of number of ladders/ respondent	3.13	3.33
Means of number of elements including values/ladder[a]	3.80	4.20

[a] Statistically significant at α=0.5, sig (2-tailed)= 0.144

Based on Table 4.4, there are three to four elements included in a ladder. Up to three to four ladders are produced per respondent. This result is less than the elements obtained in MEC research applying the soft laddering technique in the context of "mother chose meal for their children in Adelaide" (Russell et al. 2004a). This study obtained up to ten elements in a ladder and from two to ten ladders per participant. In the present study, with respect to the low number of ladders/respondent, it can be argued that respondents lacked knowledge of the products, a simple topic, and low involvement of products. For example, a respondent (male, from Java island, 40-50 years old, less than five years living in Adelaide), who said that "We only talk about routine foods we eat every day. When you ask me why this attribute is important for me, so there is no special answer. According to Russell et al. (2004a), their topic about mother choice of meal for their children in Adelaide was argued by the authors as 'a complex cognitive structure topic'.

In addition, the respondents from Java island reported less laddering and fewer elements per ladder than the non-Javanese consumers. It is suggested that respondents from the Javanese ethnic group have lower involvement in local foods compared to non-Javanese consumers since Gengler et al. (1995) stated that low involvement products had fewer interconnections and simpler ladders than high involvement products.

4.2.4.2 Content analysis

Interview transcripts were coded with an open coding procedure. The result of the content analysis using idiosyncratic concepts and a coding schedule produced 15 attributes,

17 consequences and 8 values terms (Table 4.5). Grunert and Grunert (1995) had argued that some of the bias in content analysis could arise from interferences by the researcher during the coding process. The procedure of defining the elements, and selecting and grouping the variables can also be a source of bias as it is a subjective process (Lin 2002). In this case, experience with involvement in previous studies can be an advantage during the content analysis process. The previous studies review in this investigation is restricted to articles of food choices by using MEC theory that help researcher in identifying coding themes from raw data (see electronic supplementary material/appendix).

Table 4.5: The attributes, consequences, and values coding of local foods

Attributes	Consequences	Values
• Inexpensive	• Good health	• Fun and enjoyment in life
• Freshness	• Earn money	• Self-respect
• Healthy foods	• Save money	• Security
• Good taste	• Controlling budget	• Sense of accomplishment
• Enjoyable foods	• Save time and energy	• Better family relationship
• Easy for preparation and cooking	• Time for other things	• Thank God
• Familiar products	• Money for other things	• Life satisfaction
• Trust the foods	• Green generation	• Health is the most important thing in life
• Options	• Local economic growth	
• Offering in special occasions	• Prosperous nation	
• Locally grown	• Environmental quality	
• Patriotism	• Good value of food	
• Maintain local resources	• Can afford	
• Support local communities	• Practical implication of foods	
• Bring back memories	• Social interaction	
	• Social equity and security	
	• Self-esteem	

4.2.4.3 Discussion: Hierarchy Value Maps (HVMs) of local foods

When examining the cut-off level, Reynold and Gutman (1988) suggested that a cut-off level of between 3 to 5 relations, typically involve a cut of 4 relations from 50 respondents and 125 ladders that will represent two third of the relations between elements. The type of relationship that mostly common represents the standard basis on which to

construct the hierarchy is typically A-D which is mapped as adjacent with an high number of direct relationships.

In this study, a network analysis approach is also chosen for analysing and presenting MEC data as this approach can identify which elements as the means or the ends by using an **abstractness ratio** and can calculate the **centrality index** to represent the degree of central role for each element in the HVM (see Pieters et al. 1995 for detail calculation).

This study highlights that MEC provide a powerful method for revealing what motives drive Indonesian consumers to purchase their local food. The consumers' main goals are presented in HVMs, which yield a quick and deeper understanding of why consumers buy local foods. Figure 4.1 shows the HVM of local food for Javanese consumers and Figure 4.2 present the HVM of local foods for non-Javanese consumers.
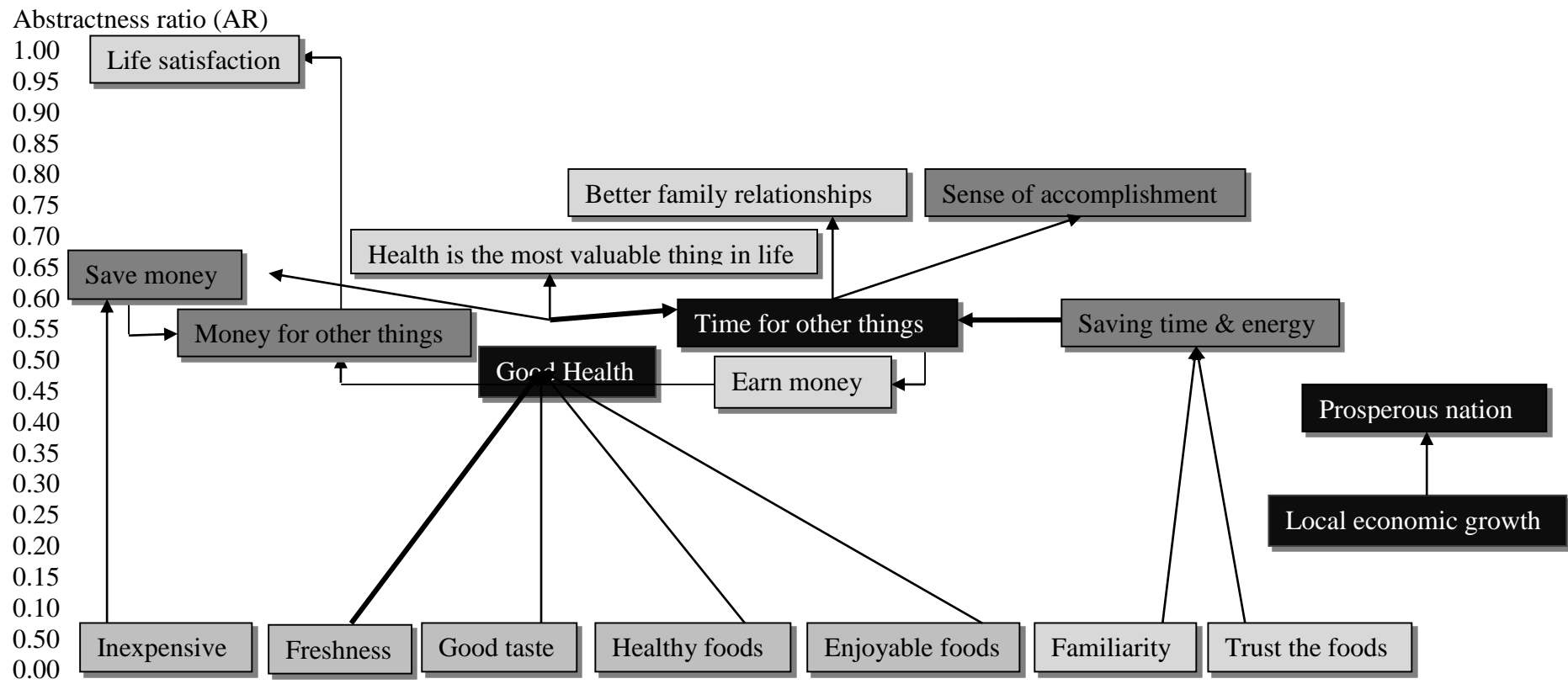
Abstractness ratio (AR)

1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.50
0.00

Life satisfaction

Better family relationships

Sense of accomplishment

Health is the most valuable thing in life

Save money

Money for other things

Time for other things

Saving time & energy

Good Health

Earn money

Prosperous nation

Local economic growth

Inexpensive

Freshness

Good taste

Healthy foods

Enjoyable foods

Familiarity

Trust the foods

Map legend:
Centrality index: ▢ 0.200 or less   ▦ 0.200< and < 0.400   ■ 0.400 or more
Linkages (frequency): → 4 to 9 connections mentioned   ➡ 10 or more connections mentioned

Figure 4.1: Hierarchy Value Map (HVM) of local foods for Javanese Indonesian consumers.

65

Abstractness ratio (AR)

1.00	
0.95	
0.90	
0.85	
0.80	
0.75	
0.70	
0.65	
0.60	
0.55	
0.50	
0.45	
0.40	
0.35	
0.30	
0.25	
0.20	
0.15	
0.10	
0.50	
0.00	

Life satisfaction

Fun & enjoyment

Sense of accomplishment

Managing budget

Earn money

Money for other things

Saving time & energy

Health

Time for other things

Save money

Freshness

Inexpensive

Easy for preparation

Map legend:
Centrality index: 0.200 or less   0.200< and < 0.400   0.400 or more
Linkages (frequency):   4 to 9 connections mentioned   10 or more connections mentioned

Figure 4.2: HVM of local foods for non-Javanese Indonesian consumers.

66

The findings show that the HVMs of local foods differ between Javanese and non-Javanese consumers and are summarised below.

- HVM of local foods for Javanese consumers are richer in attributes and values than HVM of local foods for non-Javanese consumers. For Javanese consumers, two separate ladders are produced from laddering interviews that result 8 attributes, 7 consequences and 4 values. In contrast, 3 attributes, 7 consequences and 3 values are involved in one HVM of local foods for non-Javanese consumers.

- In terms of the context of centrality, 'good health' is the greatest importance of cognition (0.613) for the Javanese consumers followed by 'time for other things' (0.484), 'sense of accomplishment' (0.323) and 'prosperous family/area/nation' (0.306). In contrast, 'time for other things' (0.526), 'managing budget' (0.516), 'good health' (0.400), 'money for other things' (0.386), 'earn money' (0.379) and 'save time and energy' (0.316) are the central elements for non-Javanese consumers. Those elements play an important role in food decision making for local foods.

- Values that can be inserted for an advertising strategy for Javanese consumers are 'sense of accomplishment', 'life satisfaction', 'better family relationship' and 'health is the most valuable in life', whereas for non-Javanese consumers, the important values are 'sense of accomplishment', 'life satisfaction' and 'fun and enjoyment in life'.

- Three main pathways are found from HVMs for Javanese consumers based on the linkages within the HWM.

- The first pathway is named as "trust the food so you feel a sense of accomplishment". The pathway is trust the food→ save time and energy→ time for other things→ sense of accomplishment.

- The second pathway is named "good health" and the pathway is freshness→ health→ time for other things→ sense of accomplishment.

- The third chain is named "support our local communities towards a prosperous nation". The linkage is support local communities→ prosperous nation.

- There are two dominant pathways within the HVM for non-Javanese consumers.

- The first main chain is name "easy for preparation so you have fun and enjoyment", which is the pathway: easy for preparation→ save time and energy→ time for other things→ earn money→ save money→money for other things→ fun and enjoyment.

- The second linkage is named "inexpensive price will create fun and enjoyment". The linkage is inexpensive→ save money→money for other things→ fun and enjoyment.

- The HVM interpretation is highly suited for Javanese consumers in many categories of age, education level attained, visa types held and family income, while for non-Javanese consumers the HVM interpretation is highly suited for people who have lower-medium family income are under forty years of age and hold a student or permanent resident visa.

Philips and Reynold (2009) stated that one of the laddering assumption that might be met is that participants' responses resulted in a complete ladder that consists of three levels of abstraction (A,C,V). However, in this study higher values are not always achieved for all HVM, particularly in HVMs from non-Javanese consumers, so this assumption is not met. In contrast, the findings of this study do not imply failure to meet the laddering assumptions as consumers may have incomplete ladders due to lack of product experience or the presence of a few simple products (Olson and Reynolds 2003). Costa et al. (2004) argued that food choice was a habitual and routinised activity that resulted in HVMs that were rich in attributes and consequences. In this case the HVMs of consumers from Java island are likely to be richer in attributes and values.

4.2.5 CONCLUSIONS

Although Means-end Chains (MEC) are frequently used for understanding motivation behind particular food choices, little is known about the application of the MEC approach among subjects from the background of developing countries. MEC theory provides a quick and improved approach for deeper understanding of motivation for food choice. A discussion of the MEC process is provided that includes some consideration of the specific approaches selected. Thus, this study offers seminal understanding motives for the choice of local foods.

The contributions of this study also provide a better perspective of local foods among Indonesian consumers. For Javanese people, 'trust the food', 'good health' and 'support

local community' are identified as views that motivated consumers to buy fresh local fresh produce while for non-Javanese people, 'easy for preparation' and 'inexpensive price' are important views that motivate them to purchase local foods. However, this study is limited to Indonesian consumers who live or stay in Adelaide. There is a need to survey a larger population in Indonesia to represent the motivation of local food for Indonesian consumers.

4.2.6 PRACTICAL IMPLICATIONS

The study offers practical implications for the Government and individual businesses in terms of: (a) a new approach for understanding the motives behind purchasing local foods for Indonesia consumers, and (b) developing new categories of attributes, consequences and values of local food for Indonesian consumer motives for purchasing their local foods. First, although Means-end Chains (MECs) are frequently used for understanding the motivation behind particular food choice, little is known about the application of the MEC approach among subjects from the background of developing countries. A discussion of the MEC process is provided that includes some consideration of the specific approach selected. Secondly, this study offers lists of categories of attributes, consequences and values derived from a combination of field results and a large number of previous studies using MEC process in the context of food choices.

4.2.7 LIMITATIONS AND FUTURE RESEARCH RECOMMEDATIONS

However, this study has two limitations. First, potential bias may come from the content analysis procedure employed. Multiple coders were not used in this study during the development of lists of the categories of attributes, consequences and values. Multiple raters can provide a higher level of methodological rigour and can avoid a potential bias source arising from the researchers who extracted the themes from the interview transcripts. Secondly, subjects in this study are limited to Indonesian consumers who live or stay in Adelaide. Respondents have a higher level of education and a higher family income when compared to most consumers who live in Indonesia. The results of this study cannot be generalised to all Indonesian consumers; a larger sample based in Indonesia needs to be studied in order to generalise the results to the wider population of Indonesia.

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Supplementary material

Appendix 1: The attributes coding for local foods.

Representative phrase employed in ladders	Previous studies	Coding
Concrete attributes		
Inexpensive, need large number of foods at a cheaper price	Inexpensive (Bredahl 1999, Gutman 1984, Lind 2007), price, economic efficiency (Urala and Lähteenmäki 2003), price (value for money) (Fotopoulos et al. 2003), lower price (Baker et al. 2004, Grunert et al. 2001, Roininen et al. 2006).	Inexpensive
Abstract attributes		
Food appearance, food quality, freshness	Freshness (Fotopoulos et al. 2003), good quality of material (White and Kokotsaki 2004), good quality (Roininen et al. 2006), fresh (Bonne and Verbeke 2006, Grantham 2007, White and Kokotsaki 2004), attractive appearance, food quality (Lind 2007), physical appearance (Morris and Buller 2003), physical appearance (Krystallis et al. 2008), appearance freshness (Barrena and Sanchez 2010).	Freshness
Nutritious foods, healthy foods, no chemical preservation	Nutritious (Gutman 1984), purity-no chemical (Fotopoulos et al. 2003), (no) pesticides, (no) hormones, antibiotics (Makatouni 2002), nutritional value (Urala and Lähteenmäki 2003), hygienic, nutritious (White and Kokotsaki 2004), less additives/chemicals, less pesticides/fertilizers, healthy products, less drugs/hormones in animal production (Padel and Foster 2005), contain no diseases (Lind 2007), no bacterial contamination, nutritious (Bonne and Verbeke 2006), healthy product, safe product (Krystallis et al. 2008), health foods (Figueroa and Garcia 2008), guaranteed to be good for health, it's a healthy food (Barrena and Sanchez 2010), good quality and taste (Bredahl 1999).	Healthy foods

Good taste	Tastes good/refreshing (Gutman 1984), good quality and taste (Bredahl 1999), traditional product/taste (Gutman, 2001), taste and other sensory quality (Urala and Lähteenmäki 2003), better taste (Makatouni 2002), good taste (Fotopoulos et al. 2003, Lind 2007), tasteful (White and Kokotsaki 2004), taste good (Russell et al. 2004a), taste (Baker et al. 2004, Bonne and Verbeke 2008), tastes good (Padel and Foster 2005, Roininen et al. 2006) .	Good taste
Foods match with respondents' taste, enjoyable foods	Family eats a lot (Makatouni 2002), enjoy eating (Fotopoulos et al. 2003), enjoyment of food (Baker and Thomson, 2004), enjoyable (White, 2004), enjoys (Roininen et al. 2006), enjoy meal (Bonne and Verbeke 2006), I enjoy the taste (Figueroa and Garcia 2008), it's appetising and enjoyable to eat, I enjoy the taste (Barrena and Sanchez 2010).	Enjoyable foods
Easy to buy, cook and serve	Easy to buy/use (Jonas and Backman, 1998), easy to handle and use (Bredahl 1999), convenience, ease (Urala and Lähteenmäki 2003), ease (Baker et al. 2004), easy to purchase, quick to cook (Figueroa and Garcia 2008).	Easy for preparation and cooking
Familiarity, preferred choice	Traditional (Gutman 1984), traditional product (Bredahl 1999), traditional, normal product/production process (Grunert et al. 2001), familiar with brand, habit (Urala and Lähteenmäki 2003), familiar (Roininen et al. 2006), the brand is familiar (Figueroa and Garcia 2008), familiar product (Russell et al. 2004a), is a regular products (Ares et al. 2008), it's feel traditional and familiar (Barrena and Sanchez 2010).	Familiar products
Safer products, trust the quality or brand	Trust the cook (White and Kokotsaki 2004), trust in brand name (Krystallis et al. 2008).	Trust the foods

Food availability, wide variety of product, packaging size options, seasonal, many option	Freedom of choice, variety, package size, selection (Urala and Lähteenmäki 2003), seasonal (Baker et al. 2004), availability (Bonne and Verbeke 2006), variety (Grantham 2007, Gutman 1984, White and Kokotsaki 2004), convenience size of package (Lind 2007).	Options
Offering discount, available in a special occasion or an event		**Offering in special occasions**
Locally grown	Local/regional products, origin (Fotopoulos et al. 2003), regional (Baker et al. 2004), production region (Bonne and Verbeke 2006), Finnish, local (Roininen et al. 2006), point of origin (Grantham 2007), locally produced (Lind 2007), geographical origin (Figueroa and Garcia 2008), geographical origin (Barrena and Sanchez 2010).	Locally grown
Love Indonesia or local product	Patriot (Baker et al. 2004), patriotic (Grantham 2007), nationalism (Naspeti and Zanoli, 2006).	Patriotism
Maintain local resources	Natural balanced maintained (Grunert 2001).	Maintain local resources
Keep farmers in business, support local tradition or local benchmark, motivating farmers, support local government policy	Support your country (Fotopoulos et al. 2003), Support for farmers (Baker and Thomson, 2004), affect viability of countryside (Roininen et al. 2006), keep Swedish farmers in businesses (Lind 2007), I am helping to sustain local agriculture (Figueroa and Garcia 2008), I am helping to sustain local agriculture (Barrena and Sanchez 2010)	Support local communities
Individual experience, childhood memories	Bring back memories (Figueroa and Garcia 2008), it brings back memories (Barrena and Sanchez 2010)	Bring back memories

a) Attributes in bold are unique for Indonesian consumers in relation to their local foods

Appendix 2: The consequences coding for local foods.

Representative phrase employed in ladders	Previous studies	Coding
Functional consequences		
Good health	Good for your health, healthy (Gutman 1984), healthiness (Bredahl 1999), healthy child (Gengler et al. 1999), good health-long life (Grunert et al. 2001), affect health of family (Makatouni 2002), promotes health, health effects, healthiness advantages (Urala and Lähteenmäki 2003), healthiness-long life (Fotopoulos et al. 2003), health related (Baker et al. 2004), good for health (Roininen et al. 2006), avoid health problems, eating/staying healthy (Padel and Foster 2005), health (Bonne and Verbeke 2006, Naspetti and Zanoli 2009, White and Kokotsaki 2004), stay healthy (Lind 2007), promote health (Urala and Lähteenmäki 2003), good health (Russell et al. 2004a), healthy (Grantham 2007), healthy life (Ares et al. 2008), healthier (Radder and Grunert 2009).	Good health
Earn money		**Earn money**
Save money	Save-money (Baker et al. 2004), save money (Gengler et al. 1999, Grunert et al. 2001, Lind 2007), good value for money (Barrena and Sanchez 2010), value for money (Krystallis et al. 2008), saves money (Roininen et al. 2006) .	Save money
No debt	Family budget and constraints (Makatouni 2002), economy stays balanced (Urala and Lähteenmäki 2003), monetary considerations (Morris and Buller 2003), control of finances (Radder and Grunert 2009).	Controlling budget

Save time and energy	Save time (Bonne and Verbeke 2006, Gengler et al. 1999, Lind 2007), time saving (Krystallis et al. 2008), save time (Figueroa and Garcia 2008).	Save time and energy
Time for daily routine activity, family activities, social activities, religious activities	Can do more/coping (Gutman 1984), time for other things (Lind 2007), free time (Bonne and Verbeke 2006), can do alternative activities (Roininen, 2009).	Time for other things
Money for buying food, clothes, travelling etc	Save money, better economy, buy something else (Grunert et al. 2001), spend money for other things (Lind 2007).	Money for other things
Good education in the context of agriculture for next generation		**Green generation**
Local economic growth, decreasing urbanization, more jobs available, labour and capital intense, increasing productivity and production, increasing food supply for local communities, increasing local food supply	Creates employment (Roininen et al. 2006), economic support (Grantham 2007), support local economy (Padel and Foster 2005).	Local economic growth
Prosperous family/area/ nation	Creates employment, affects viability of countryside, like to support (local) (Roininen et al. 2006)	Prosperous nation
Environmental quality, soil quality, using of sleep land	Being environmentally conscious (Fotopoulos et al. 2003), sustain/protect the environment (Padel and Foster 2005), responsible for nature (Bredahl 1999), environment stays clean (Roininen et al. 2006), I am protecting the environment (Barrena and Sanchez 2010).	Environmental quality

Better price-better quality	Good value for money (Barrena and Sanchez 2009)	Good value of foods
Increasing people power buy, less imported products	Can afford (Roininen et al. 2006)	Can afford
Practical implication, not bored, like the food, do not like to try new recipes, good experience of foods	Package size, practically, selection (Urela 2003)	Practical implication of foods
Psychosocial consequences		
Social interaction	Social togetherness (Bredahl 1999), good social relations (Grunert et al. 2001), socially acceptable (Gutman 1984), social acceptance (Reynolds 2006), socialize (Gutman 1982), social life (White and Kokotsaki 2004), help me interact socially (Figueroa and Garcia 2008)	Social interaction
No gap between the rich and the poor, no gap between local people and newcomers, security for new comer	Safety (Grantham 2007), security-safety (Fotopoulos et al. 2003), social harmony (Naspetti and Zanoli 2009)	Social equity and security
Self-esteem	Self-esteem (Gutman 1984, Radder and Grunert 2009, Reynolds 2006)	Self-esteem

b) Consequences in bold are unique for Indonesian consumers in relation to their local foods

Appendix 3: Values coding procedure for local foods.

Representative phrase employed in ladders	Previous literature	Coding
Enjoying life, refresh the mind	Enjoyment/quality of life (Baker et al. 2004), give enjoyment/pleasure (Urala and Lähteenmäki 2003), enjoyment (Bredahl 1999, Gengler et al. 1999, Grunert et al. 2001, Makatouni 2002, White and Kokotsaki 2004), enjoy life (Bonne and Verbeke 2006), personal enjoyment (Reynolds 2006), provides fun and pleasure (Figueroa and Garcia 2008), have fun and be happy (Russell et al. 2004a), pleasure (Ares et al. 2008, Roininen et al. 2006), provide fun pleasure and enjoyment (Barrena and Sanchez 2010)	Fun and enjoyment in life
Pride, more respect from others, social status	More respect from others (Figueroa and Garcia 2008), self-respect (Russell et al. 2004a), I feel more respect by other, Give me piece of mind, dignity and self-respect (Barrena and Sanchez 2010)	Self-respect
Financial security, national security, food security	Security (Baker et al. 2004, Krystallis et al. 2008, Radder and Grunert 2009), creates security (Roininen et al. 2006),	Security
Good future for family and next generation, better quality of life, successful in life, building future for	Self-fulfilment (Gengler et al. 1999), freedom, independent, personal development (Grunert et al. 2001), being a good mother (Makatouni 2002), being a better person, fits the ideals (Urala and Lähteenmäki 2003), quality of life (Bredahl 1999, Krystallis et al. 2008, Roininen et al. 2006), personal progress, quality of life (Fotopoulos et al. 2003), good life (White and Kokotsaki 2004), personal achievement (Baker et al. 2004), personal development, wellbeing (Naspetti and Zanoli 2009), enhance my quality of life and safety, more success (Figueroa and Garcia 2008), sense of	Sense of accomplishment

family/Indonesia, help other people is compulsory for me	accomplishment (Russell et al. 2004a), better quality of life (Ares et al. 2008), achievement (Radder and Grunert 2009), enhance my quality of life and security, give me a sense of self fulfilment and attention to duty, provides emotional fulfilment, I am more successful (Barrena and Sanchez 2010)	
Better family relationship	Warm relationship (Russell et al. 2004b)	Better family relationship
Thank God		**Thank God**
Life satisfaction	Psychological satisfaction (Krystallis et al. 2008)	Life satisfaction
Health is the most valuable thing in life		**Health is the most valuable thing in life**

c) Values in bold are unique for Indonesian consumers in regard to their local foods.

A study of consumer perceptions of local foods that is conducted within the main study is then reported in Chapter 5.

Chapter 5: Perspective on Consumer Perceptions of Local Foods: A view from Indonesia

5.1 Introduction

This chapter presents consumer perceptions and a comparison of the level of awareness of local foods between different ethnic groups of the Javanese, Sundanese and Minangese who live in urban and rural areas. What make foods 'local', 'national' and 'imported' are explored in this chapter as well as the important characteristics of 'local'. How consumers perceive price and quality of local foods is also discussed. Some specific foods are named by respondents as 'local', 'national' and 'imported' foods. This chapter is presented as a manuscript that has been accepted by the *International Journal of Food and Agribusiness Marketing*.

5.2 Perspectives on Consumer Perceptions of Local Foods: A view from Indonesia

Abstract

In many countries around the world, support for local agriculture has been a burgeoning issue involving the development of the local foods movement as an alternative marketing strategy. This study investigated ethnic and geographic differences with respect to consumers' perceptions of local foods. In this study, semi-structured interviews were conducted to examine consumers' views of local foods. In Indonesia, 'location', 'quality' and 'price' were found to be the most salient characteristics of local foods. The idea of village was associated with the meaning of 'local'. Although the respondents' levels of awareness of local foods were high, further education and dissemination of the national policy on local foods is urgently needed.

Keywords: consumers' perceptions, Indonesia, local foods, alternative marketing.

5.2.1 INTRODUCTION

In many parts of the world, support for local agriculture is emerging as an important issue in the flourishing of the local foods movement as an alternative marketing strategy. Each local foods system has a definite form and structure that is rooted in a particular location,

aimed at supporting long-term local economic benefits and promoting social and environmental advantages, as well as providing substantial support for local foods businesses through a competitive strategy.

Weatherell *et al*. (2003, p.234) argued that the local food movement seemed to flourish in developed countries such as The United States and European countries:

> Local food is strong in developed countries because they are often associated with these abstract benefits.

Attributes provided by local foods such as food quality, consumer health and safety, enriching the local community, promoting social equity and minimization of waste due to a short marketing system were positive benefits identified by consumers (Feenstra, 1997). However, there is a lack of information on how the local foods movement is promoted in developing countries such as Indonesia and how consumers who have different social-economic backgrounds compared to consumers in developed countries in their perceptions of local foods. This paper aims at providing consumers' perspectives of local foods in Indonesia.

Although data on local foods production and their supply chain was very limited in Indonesia, Natawidjaja (2005) reported that most small farmers of horticultural products who had ownership of land had an average 0.3 ha per farmer. They sold their products through farm collectors (65%), sold directly to traditional markets (15%), sold to large farmers or agricultural firms (10%) and to agricultural product suppliers (10%). In the case of traditional markets, 70% of horticultural products were supplied from farm collectors, 10% from small farmers, 15% from large farmers or agricultural firms and 5% from agricultural product supply companies (Natawidjaja, 2005).

5.2.1.1 The local foods movement in the United States of America (US)

In the US, many states promoted local foods systems in a movement towards sustainable food production such as 'The Local Foods Purchase Policy' of Woodbury county, Iowa, (Flint, 2004), 'The AgriMissouri Promotion Program' of South Missouri (Brown, 2003) and 'The Delaware Agricultural Schemes' (Gallons *et al.*, 1997). Ostrom (2006 , p. 66) stated:

It could be argued that 'local foods' has become the unifying theme of a social movement to challenge and re-shape the modern agri-food system.

Although Gallons *et al.* (1997) reported that the quality of local fresh produce from Delaware was the same as the fresh produce from other states, consumers were willing to pay a premium price for locally produced foods (Brown, 2003; Schneider and Francis, 2005; Wilkins, 1996). Consumers perceived the local foods as a fresher product which tasted and looked better than other foods (Adelaja *et al.*, 1990; Wilkins, 1996).

5.2.1.2 The local foods movement in the United Kingdom (UK)

In the UK, a local foods system was promoted by the Government in early 2002, as part of a movement that over a period of 10 years involved a policy of sustainable food consumption and supported a 'dynamic element of the food system in the UK' (Ilbery *et al.*, 2006; Morris and Buller, 2003). Fortunately, UK consumers had a very positive attitude towards developing their local foods. They believed that locally grown produce was of a better quality compared to national or imported foods (La Trobe, 2001), as well as being safer and more nutritious (Seyfang, 2004). Another factor supporting this preference was consumer ethnocentrism, since UK consumers preferred to buy English products. Based on The New Economic Foundation poll in 2003, around 52 per cent of UK consumers preferred to buy their local foods. However, the actual purchasing of local foods on a regular basis was still low, generally only one or even less products per month (Chambers *et al.*, 2007).

5.2.1.3 The local foods movement in Japan

Japan, a highly developed Asian country, has promoted 'The Chisan-Chisho movement' (locally produced, locally consumed) since the late 1990s. This movement was introduced in order to deal with a long-term crisis in the Japanese food system that resulted from low food self-sufficiency, food scandals, including generic modification products and food label falsification, as well as mad cow disease. Before 2008, the Chisan-Chisho movement was not able to address the issue of 'marginality' in the Japanese food system as this movement would seem merely to involve a marketing slogan in order to vary the regular brand and marketing of food products. The Chisan-Chisho movement also responded

inadequately to the issue of social justice, the accessibility of low-income families to healthy food, and food citizenship (Kimura and Nishiyama, 2008).

5.2.1.4 The local foods program in Indonesia

Differing from the more highly developed countries, the local foods program in Indonesia was aimed at overcoming more fundamental problems in food consumption such as low food consumption, low variety in consumable products and the domination of rice as the main source of carbohydrate (Department of Indonesia's Agriculture, 2010). The proportion of Indonesian people suffering from so-called 'food insecurity' (calorie intakes less than 1,400 Kcal/person/day) was 13.3 per cent in 2010. Moreover, rice dominated the Indonesian daily food intake. Around 62.5 per cent of Indonesian people ate rice for their daily diet, totalling 139 kilograms/person/year in 2010, which was higher than in Malaysia (80 kg) and Japan (60 kg) and indeed was the highest level of rice consumption in the as world (International Rice Research Institute, 2012). These problems were in need of serious attention from the Indonesian Government as Indonesia was also the fourth most populous country in the world, and was occupied by 238 million people in 2010 (Department of Indonesia's Agriculture, 2010).

In order to deal with these problems, the Indonesian Government issued President Regulation Number 22 in 2009 regarding the acceleration of food diversification that was based on local resources. This regulation was aimed at encouraging Indonesian people to diversify their food consumption based on local foods. The official definition of local foods given by the Department of Indonesia's Agriculture (2010 p. 8) was:

> Foods including carbohydrates, proteins, vitamins and minerals which are produced and developed based on local potential resources and local cultures.

This definition still left a problem as to what 'local' meant. If 'local' referred to a distance, how far was it? Indonesia is a multi-ethnic society with at least a hundred local languages, and people live in rural and urban areas. Consequently, it is necessary to understand what consumers' perspectives of local foods in urban and rural locations and between different ethnic groups are. In order to make comparisons with selected highly developed countries, Table 5.1 records in summary of how consumers view the idea of 'local foods production' in Europe and two North American countries (Canada and the US).

Table 5.1: Summary of the meaning of 'local foods production' in selected developed countries.

Study	Date of study	Sample size	Procedure	Views of local foods production
1. United States				
Dunne *et al*.	2009	27 food retailers at Willamette Valley	Interviewing	57 % of respondents agreed that local meaning was a national definition; 33 % agreed that it was a specific regional definition.
Onozaka *et al*.	2008	1268 respondents	National US web-based survey	**Physical distance** Over 70% of respondents considered a 50 mile radius **Political boundary** Over 40% of respondents stated when produced within one's county
Darby *et al*.	2005-2006	530 shoppers at Midwestern locations, in Ohio State (US)	Interviewing, random sampling	Boundaries of State for local produced food.
Zepeda and Leviten-Reid	2002-2003	48 respondents	Focus group	**Caucasian shoppers:** Driving time of a day's drive distance. **African-American shoppers:** Political boundaries, environment and support for farmers.
Wilkins *et al*.	2000	166 university students in New York State (US)	Interviewing	**The meaning of 'local':** Place food produced, uniqueness of place, speciality place of distribution and marketing.
Gallons *et al*.	1995	1205 consumers at markets in Delaware State	Random sample mail survey	**Local means: State of location** Delaware 83.2% Delmarva 48.3% Southern New Jersey 42.5% Southern Pennsylvania 33.9%
Bruhn *et al*.	1992	400 respondents from supermarkets in California		**Perception of locally produced:** Support local agriculture, fresher product, expects to pay less.
2. Canada				
Smither *et al*.	2004	308 customers of farmer markets in Ontario, Canada	Direct engagement with customers	**Most acceptable meaning of local** region/neighbouring region (39%) county/neighbouring county (27%) municipality/neighbouring municipality (17%).
3. European countries				
Chambers *et al*.	2007	33 residents of Reading , England and surrounding areas	Focus group	Six characteristics to differentiate local, national and imported foods were 'cost', 'lifestyle', 'food quality', 'consumer ethnocentrism', 'choice' and 'farmers'.
Roininen*et al*.	2003	25 respondents of Mikkeli and Espoo, Finland	Word association	**Positive association** with 'local foods': freshness, short transport, security, contributes to local economy. **Negative association** with local foods: price

As can be seen in Table 5.1, geographic differences (physical distance, political boundaries, and driving distance) dominate the meaning of local. Other characteristics such as food quality, price and supporting local agriculture are also considered by consumers as the characteristics of local foods. Furthermore, little research has been undertaken involving

the consumers' perspectives of local foods in developing countries. Hence, this present study is aimed at providing an insight of consumers' perception of local foods by using Indonesia as the subject.

5.2.2 METHODS

5.2.2.1 Research questions

In order to understand consumers' perceptions of local foods, these research questions were formulated. :

(1) What are the consumers' perceptions of local foods, rather than national and imported foods?

(2) How do consumers perceive the meaning of 'place produced' in rural and urban locations as well as between ethnic groups?

(3) What are consumers' perceptions of price and quality of local foods in rural and urban areas as well as between the major ethnic groups?

(4) What food comes from local, national and imported sources?

(5) What are (a) the level of consumer awareness and (b) the most familiar source of knowledge of local foods policy in Indonesia?

5.2.2.2 Subjects and general procedures

A local foods questionnaire was developed through the use of the standard techniques advanced by Aaker *et al*. (2004) by using reported studies in order to state the specific questions. The questionnaire was then submitted to trial testing among 52 Indonesian consumers in the capital city of an Australian state and subsequently to a second trial with 13 respondents in a city in Central Java. The locations selected for trial testing are based on a justifiable reason. From the pre-test results, the questionnaire was revised. It was shortened and the wording changed to clarify the questions. Other issues such as specific terms, time taken during interview and the order of questions were improved at this stage. Screening questions were also asked in order to select each respondent, who needed to be the food decider in a household (the definition of 'food decider' was derived from Schiffman and Kanuk, 2010, p. 353).

The sampling of respondents involved a multistage design. In this case, Indonesia was the country that provided the target population of the study. At the first stage, a cluster sample of Indonesian adults was selected. Ethnicity was chosen as the clustering characteristic. Three dominant ethnic groups, Javanese, Sundanese and the Minangkabau, were chosen as the largest and most appropriate ethnic groups in the country under survey. At the second stage, a rural area and an urban area for each ethnic group were selected. In the next step, three sub-districts for each rural area and urban area were selected by using random sampling procedures. Then a village from each sub-district was chosen randomly. Finally, a residential block was selected randomly from each village selected. Figure 5.1 shows the locations of the six main clusters in a map of Indonesia.

Figure 5.1: Location of six main sample clusters in Indonesia.

The six main clusters formed in this way were as follows:

Minangkabau (West Sumatra province):

(1) **Padang city** (urban area), (2) **Tanah Datar regency** (rural area)

Sundanese (West Java province):

(3) **Bandung city** (urban area), (4) **Tasikmalaya regency** (rural area)

Javanese (Central Java and Yogyakarta provinces):

(5) **Yogyakarta city** (urban area)**,** (6) **Purbalingga regency** (rural area)

Respondents were asked for their views by using semi-structured questionnaires. All consumers were asked an opening question: "What makes food 'local', 'national' and 'imported'?" The following question in the form of a closed question inquired about the specific location of 'place produced'. Then, consumers' perceptions of quality and price were asked. An open question involving the naming of foods that come from local, national and imported sources was asked to obtain information about familiar food products from the respondents. The last question was about the level of consumer awareness and the most familiar source of knowledge about local foods policy. A section of the interview schedule also sought information concerned with demographic characteristics. These included gender, age, education, job, family income, total household size, family size, length of living in a named village, and questions regarding involvement in growing food and farming. These questions provided links with several previous research studies in order to obtain information on marker variables and to assess the adequacy of the sample (Brown, 2003; Chambers, *et al.*, 2007; Gallons, *et al.*, 1997; Schneider and Francis, 2005; Wilkins *et al.*, 2000). Demographic data and response frequencies were transformed into percentages and were compared statistically using nomographs (a procedure advanced by Oppenheim). A significant difference (Oppenheim, 1992) between two percentages at the 5 per cent probability level is referred to in the table as a 'sig.val.' and is indicated by an asterisk (*). A total of 533 useable responses were available after cleaning and editing with a response rate of 99 per cent of the designed sample.

5.2.3 RESULTS

Table 5.2 records the characteristics of the respondents when compared to national household characteristics. Food deciders were dominated by female (92.5%), married (86.3%), mature adults (64.7% were from 30 to under 50 years old), from married-couple households (52.0%), who had monthly family incomes under two million IDR (57.0%), housewives (54.7%), who lived with three or four family members (41.4%), and had completed Senior High School (35.1%). It is argued that women play a more dominant role in making routine consumption decisions for the family.

Table 5.2: Characteristics of survey respondents compared to national household characteristics.

Characteristics	Personal			Home and Family			Status and location of family		
Total household N=533	N	%	Stat[a]		N	%		N	%
Gender				**Household size (people)[b]**			**Marital status[d]**		
Female	493	92.5	50.3*	1-2	33	6.1	Married	460	86.3
Male	40	7.5	49.7*	3-4	219	41.1	Separated	7	1.3
Education				5-6	195	36.6	Widowed	43	8.1
Primary School	127	23.8	38.6*	7-8	60	11.3	Single	17	3.2
Junior High School	112	21.0	34.3*	9-10	22	4.1	Divorced	6	1.1
Senior High School	187	35.1	22.0*	11-12	4	0.8			
College/University	107	20.1	5.1*						
Age (years old)				**Monthly family income (million IDR)[c]**			**Living in the city/village (years)[d]**		
≤ 10	0	0	19.3	≤ 2	304	57.0	≤ 10	93	17.4
$10 <$ and ≤ 20	0	0	18.3	$2< - \leq4$	156	29.2	$10 <$ and ≤ 20	82	15.4
$20 <$ and ≤ 30	55	10.3	17.3	$4< - \leq6$	37	7.0	$20 <$ and ≤ 30	74	13.9
$30 <$ and ≤ 40	179	33.6	16.1*	$6< - \leq8$	10	1.9	$30 <$ and ≤ 40	103	19.3
$40 <$ and ≤ 50	166	31.1	12.9*	$8< - \leq10$	8	1.5	$40 <$ and ≤ 50	98	18.4
$50 <$ and ≤ 60	90	16.9	8.4*	$10\geq$	18	3.4	$50 <$ and ≤ 60	58	10.9
$60 <$ and ≤ 70	34	6.4	4.5				$60 <$ and ≤ 70	21	3.9
70	9	1.7	3.1				70	4	0.8
Employment							**Household type[d]**		
Entrepreneur	117	22.0	19.4				Single person	85	15.9
Not paid labor	6	1.1	20.0*				Married-couple family	277	52.0
Paid labor	12	2.3	3.0						
Employee	56	10.5	30.1*				Others family	158	29.6
Agricultural worker	36	6.8	5.4				Others non family	13	2.4
Non agricultural worker	15	2.8	4.7*						
Work in family	291	54.5	17.4*						

*) A significant difference between two percentages at the five per cent level of probability is indicated by an asterisk (*)
[a]The percentage of census data were calculated from statistics data (bps.go.id).
[b]National average household = 4 people.
[c]National average family income = 1.34 million IDR/month.
[d]National average data are not available.

5.2.3.1 What makes foods 'local', 'national' and 'imported'?

Similar to some views of the meaning of 'local' in previous studies, respondents replied to the open survey question by answering: 'place produced' (28.2%) followed by 'quality' (27.0%) and 'price' (20.8%) as the most important characteristics to differentiate local, national and imported foods. Table 5.3 records the percentage of responses given by respondents regarding characteristics of 'local', 'national' and 'imported' foods. A total of 744 responses (an average of 1.4 replies per respondent) are classified into 11 categories. When reviewing respondents' responses in urban and rural areas, 'place produce' is the most frequently used characteristic of what local means in urban areas when compared to rural

areas. 'Place produced' pertains to where the foods are grown or come from, namely grown in a village, regency, or province. Since local foods are rooted in a particular place, 'place produced' is a very important characteristic of 'local'. A better understanding of knowledge about local foods in urban areas can be linked to a better education and greater accessibility to information from the mass media.

Table 5.3: Percentage of responses given by respondents with respect to what makes food 'local', 'national' and 'import'.

Characteristics Total responses= 744 Number of persons= 533	Total		Urban and rural				Ethnic groups					
			Sig.Val.= 0.08				J x S Sig.Val.= 0.09		S x M Sig.Val.= 0.09		J x M Sig.Val.= 0.09	
			Urban $n_u = 269$		Rural $n_r = 264$		Javanese $n_j = 184$		Sundanese $n_s = 172$		Minangkabau $n_m = 177$	
	n	(%)	n	(%)	n	(%)	n	%	n	%	n	%
Place produced	210	28.2	121	34.7	89	22.5*	100	42.4*	62	23.8	48	19.4*
Quality	201	27.0	95	27.2	106	26.8	32	13.6*	74	28.4*	95	38.5*
Price	155	20.8	55	15.7	100	25.3	23	9.7*	59	22.6*	73	29.6*
Healthy foods	57	7.7	20	5.7	37	9.4	30	12.7*	21	8.0	6	2.4*
Food variety	42	5.6	18	5.2	24	6.1	31	13.1*	10	3.8	1	0.4
Brand name	22	3.0	12	3.4	10	2.5	2	0.8	11	4.2	9	3.6
Packaging	18	2.4	14	4.0	4	1.0	5	2.1	6	2.3	7	2.8
Where to buy	14	1.9	6	1.7	8	2.0	5	2.1	8	3.1	1	0.4
Accessibility to foods	9	1.2	3	0.9	6	1.5	4	1.7	5	1.9	0	0
Food distribution	8	1.1	2	0.6	6	1.5	2	0.9	4	1.5	2	0.8
Unsure	8	1.1	3	0.9	5	1.3	2	0.9	1	0.4	5	2.0

*) A significant difference between two percentages at the five per cent level of probability is referred to as a Sig.Val. and is indicated by an asterisk (*)

In terms of ethnicity, 'place produced', 'quality' and 'price' are the three most important characteristics of 'local'. 'Quality' refers to 'freshness', and 'looks a better product' and 'price' is associated with how much money is paid for the products. The Javanese people mentioned 'place produced' more often than the Sundanese people and the Minangkabau with values of 42.4 per cent, 23.8 per cent and 19.4 per cent responding respectively. The differences of what made foods 'local', 'national' or 'imported' is also likely to be linked to the ethnic characteristics of the consumer with respect to gender, age, education, job, family income, total household size, family number, how long living in this village, and

involvement in growing food and farming. However, since such data require more complex analysis, these differences are not discussed in this article.

5.2.3.2 Local foods: perceptions regarding 'place produced'

When referring to previous studies (see Table 5.2), views of what local means are dominated by a distance-related answer such as physical distance, political boundaries and place of food produced. In order to understand the clearer pattern of place produced, the respondents were then asked with respect to a political boundary in order to interpret 'place produced'. 'Political boundary' which refers to administrative divisions in Indonesia is chosen because it is easily recognized by respondents. Table 5.4 records information for the three ethnic groups and for rural and urban areas on the respondents' views of the meaning of 'local' with respect to the specific locations of village, sub-district, city or regency, province, island, and country. The most widely adopted meaning of 'local' is clearly the village.

Table 5.4: The percentage of responses given by respondents with regard to 'place produced' as characteristic of meaning of 'local'

'Place produced'	Rural and Urban		Ethnic groups		
	Sig.Val.= 0.08		J x S Sig.Val.= 0.09	S x M Sig.Val.= 0.09	J x M Sig.Val.= 0.09
	Urban n_u = 269	Rural n_r =264	Javanese n_j = 184	Sundanese n_s = 172	Minangkabau n_m= 177
Village	47.9	70.5*	55.5*	72.9*	49.3
Sub-district	10.7	13.2	13.4	9.1	13.4
City or regency	23.6	11.0*	21.9*	10.4*	20.0
Province	13.6	3.8*	8.1	4.6*	13.3*
Island	1.5	1.1	1.1	0.6	2.0
Country	2.7	0.4	0	2.4	2.0

*) A significant difference between two percentages at the five per cent level of probability is referred to as a Sig.Val. and is indicated by an asterisk (*)

The consumers' dominant views of 'place produced' are clearly the 'village' across ethnic groups in rural and urban areas. The important characteristic of rural areas that was stated by Statistics Indonesia (Central Buerau Statistics, 2005) was that a large majority of

the population, typically 75 per cent, worked in agricultural fields and was based in a village. These people lived a traditional farming lifestyle which changed slowly in daily practices and had a long period of staying in one location (Delisle, 1990). Therefore, it is to be expected that 'village' is mentioned by respondents more often to explain the meaning of 'local' in rural areas (70.5%) when compared to urban areas (47.9%). Urban respondents provide highly varied answers to explain what 'place produced' meant and mentioned other geographical situations (city or regency and province) as the political boundary of 'local' more often than do those in rural areas.

The Javanese and the Minangkabau also mention more frequently these other geographical situations for 'place produced' than do the Sundanese. The leading characteristics of the Sundanese were housewives, who have a lower family income and are involved in farming and these characteristics of the Sundanese are similar to the characteristics of the people who live in rural areas.

5.2.3.3 Perceived quality of local foods

Generally, local products are believed to be of higher quality than national or imported foods by most consumers (significant at the 10 per cent level) across ethnic groups in rural and urban areas (54.3%). This finding is similar to previous studies by Ostrom (2006) since over half of respondents' replies without a geographical marker associate local food with freshness and better quality. Table 5.5 records information for the three ethnic groups, and the urban and rural groups on their perceptions of the quality of local foods. However, in urban areas, consumers state marginally more frequently that local foods have a lower quality than in rural areas. This is understandable as most agricultural produce in Indonesia is sold at traditional markets closer to the area of production. Moreover, long-distance travel, road quality and packaging during transportation to urban areas have consequences for the quality of the foods sold at urban markets.

Although most consumers state that local foods have a higher quality than national or imported food, the percentage of responses given by Sundanese people (35.3%) with regard to 'the same quality' of local compared to national and imported foods is higher than percentages by the Javanese people (26.9%) and the Minangkabau (14.3%). In this case, it

may be because the Sundanese are closer to the central markets for agricultural products including local, national and imported foods such as Jakarta and Bandung and thus the Sundanese may be linked to perceptions of the higher quality of some national and imported foods.

Table 5.5: The percentage of responses given by respondents with regard to the quality of 'local' compared to 'national' and 'imported' food.

'Quality'	Rural and Urban (%)		Ethnic groups (%)		
			J x S Sig.Val.= 0.09	S x M Sig.Val.= 0.09	J x M Sig.Val.= 0.09
	Sig.Val.= 0.08				
	Urban $n_u = 269$	Rural $n_r = 264$	Javanese $n_j = 184$	Sundanese $n_s = 172$	Minangkabau $n_m = 177$
Lower quality	14.7	21.6†	18.6	15.6	20.2
The same quality	25.9	25.4	26.9*	35.3*	14.3*
Higher quality	57.2	51.1	52.4	47.4*	63.3†
Unsure	2.2	1.9	2.1	1.7	2.2

* Significant differences at and beyond 5 per cent probability level.
†Significant differences at and beyond 10 per cent probability level.

5.2.3.4 Perceived price of local foods

As stated by Ostrom and Jussaume (2007), price became an increasingly important attribute when the consumers' income levels were lower. For Indonesian consumers, local foods are also believed to be cheaper than 'national' and 'imported' foods by most respondents (77.7%). Table 5.6 records information for the three ethnic groups, and the urban and rural groups on their views of the price of local foods. In rural areas, consumers believe that local foods are cheaper than national or imported foods. An important feature of rural areas (Central Buerau Statistics, 2005) was that a large majority of the population worked in the field of agriculture, so consumers could access foods at a cheaper price. With respect to ethnicity, the percentage of responses given by the Sundanese (85.0%) indicate that local foods are cheaper compared to national and imported foods is only slightly higher than that given by the Javanese people (81.7%), but substantially higher than that given by the Minangkabau (66.4%). Food and nutrient intake of the Minangkabau had a different pattern from the other two ethnic groups. Lipoeto *et al.* (2001) reported that rice, fish, beef

and chicken meat were the basic ingredients of the meals of Minangkabau people. For the Sundanese and Javanese, rice, eggs, soy protein sources and vegetables were the common ingredients for daily consumption. The differences in daily food consumption patterns and food expenses between the different ethnic groups may be linked to their perceptions of price.

Table 5.6: The percentage of responses given by respondents with regard to the price of 'local' compared to 'national' and 'imported' food.

Price	Rural and urban (%)		Ethnic groups (%)		
	Sig.Val.= 0.08		J x S Sig.Val.= 0.09	S x M Sig.Val.= 0.09	J x M Sig.Val.= 0.09
	Urban $n_u = 269$	Rural $n_r = 264$	Javanese $n_j = 184$	Sundanese $n_s = 172$	Minangkabau $n_m = 177$
Cheaper	73.3	82.1*	81.7	85.0*	66.4*
The same price	8.2	6.1	6.0	8.6	5.6
More expensive	16.8	11.0	10.2*	5.2*	26.3*
Unsure	1.7	0.8*	2.1	1.2	1.7

* Significant differences at and beyond 5 per cent probability level.

5.2.3.5 Naming local, national and imported foods

In this study, the specific foods named as local, national and imported foods varied significantly. In Table 7, a total of 1210 answers were categorized into 80 'local' foods while 963 responses were categorized into 68 'national' foods. A total of 995 answers named 76 'imported' foods. Table 7 records the percentage of the ten products most often mentioned as 'local', 'national' and 'imported'.

Table 5.7: The percentage of the ten products most often mentioned as 'local', 'national' and 'import'.

	'Local' food n=1210 LxN Sig.Val=0.045			'National' food n=963 NxI Sig.Val=0.05			'Imported' food n=995 LxI Sig.Val=0.045	
	responses	%		responses	%		Responses	%
Rice	196	16.2	Rice	150	15.6	Beef	146	14.7
Corn	108	8.9	Apple	93	9.7	Rice	127	12.8
Cassava	102	8.5	Beef	68	7.1	Apple	116	11.7
Spinach	66	5.5	Orange	55	5.7	Orange	83	8.3
Kangkong	55	5.6	Wheat	41	4.3	Grape	75	7.5
Chilli	53	4.4	Fish	37	3.8	Pear	44	4.4
Sweet potato	45	3.7	Corn	35	3.4	Wheat	42	4.2
Tomato	40	3.3	Chili	35	3.6	Fish	35	3.5
Banana	32	2.6	Mango	23	2.4	Milk	31	3.1
Beef	29	2.4	Grape	23	2.4	Banana	28	2.8

* Significant differences at and beyond 10 per cent probability level.

Rice was the most frequently named food as a local and national food, while beef was the best known imported food. This is understandable as rice is the dominant carbohydrate source in the areas under survey and in Indonesia, as is referred to previously. Corn and cassava were the most important alternative carbohydrate sources considered by respondents.

Fruit and vegetables were frequently mentioned as local and national foods. This can represent a household's daily diet. Apples and oranges were mentioned as national foods. These fruits are grown in specific areas of Indonesia, for example, Malang where apples are grown, as well as Medan and Pontianak, where oranges are grown. Respondents also mentioned wheat as a national product. However, these consumers' views about wheat are inappropriate since wheat is mostly imported into Indonesia from Australia and Turkey.

5.2.3.6 Support for local foods policy in <u>President Regulation no 22 in 2009</u>.

More than half (57.3%) of the respondents surveyed have heard about the local foods policy and the acceleration of food diversification that can be based on local resources. The most familiar source of knowledge about local foods policy is from advertisements in the mass media (70.9%), but 24.5 per cent of the respondents have obtained the information from the Indonesian Government programs (village working groups, women groups as well as agricultural exhibitions). Interestingly, a few respondents (10.5%) who have heard about the policy, when asked what the main issue of the policy is, responded 'true' to a correct statement of the policy while the others have said 'false'. Thus, there is clearly a need for further education and greater publicity by the Indonesian Government to convey to the people of the country information about the program. The most effective ways suggested from this survey are through the mass media.

5.2.4 CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

The place where food is produced is clearly indicated as a characteristic of 'local foods' and 'village' is frequently mentioned by respondents to explain 'local' in terms of a specific political boundary. Consumers believe that local foods have higher quality and cheaper price than 'national' and 'imported' foods. Furthermore, in Indonesia rice is the most common local food for consumers. However, there is an urgent need from the Indonesian Government to give greater publicity to its local food policy.

It is generally known that Indonesia constitutes hundreds of ethnic groups. Although investigating three major ethnic groups, the results of this study cannot be generalised to all Indonesian consumers. Some important considerations in the local foods studies such as a wider population (western Indonesia, within Indonesia), a larger sample and different subjects (farmers or traders) need to be studied. This baseline study is also applicable to other Asian countries.

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Chapter 6 examines the motivations of purchasing local foods between four situation consumptions namely everyday eating, eating at a restaurant, eating when travelling and eating to celebrate religious festivals.

Chapter 6:

Purchasing motives of local foods for each consumption situation

6.1 Introduction

This chapter presents the investigation of purchasing motives of local foods for four consumption situations, namely: purchasing local foods for everyday eating, eating at restaurants, eating when travelling and eating when celebrating religious festivals, using a Means-End Chain (MEC) approach. The Hierarchy Value Map (HVM) for each situation is presented and discussed. The dominant pathways of each situation, including their abstractness ratio and centrality index, are examined. In addition, the differences between the dominant pathways across situations are highlighted and discussed.

6.2 A master set of codes of attributes, consequences and values for local foods

In order to understand the consumer's act of purchasing local foods in this study and in a particular consumption situation, interviewers are asked to obtain and identify the consumer's cognitive structure that involved attributes, consequences and values following the Means-End Chain (MEC) procedure. Then the attributes, consequences and values are categorised with regard to a master set of coding that was developed during the pilot study. At this stage, some new attributes, consequences and values emerge. The Summary Implication Matrix (SIM) summaries the number of times a variable in a row is related to another variable in the column from all respondents (Bagozzi and Dabholkar 2000). Typically, the order of variables in the SIM follows the structure of a MEC with attributes listed first and followed by possessing consequences and values (Bagozzi and Dabholkar 1994). Using an approach suggested by Pieters et al. (1995) and Bagozzi and Dobhalkar (1994), a concept of abstractness ratio and a centrality index is employed to assess the number of times each variable is mentioned as the end point when compared to the number of times a variable is mentioned as the origin of a relationship. A cut-off level is needed for

selection in order to construct the Hierarchy Value Map (HVM). In this chapter, the level of cut-off chosen is discussed in detail as this study considers a large number of respondents (533 respondents). In general, the number of respondents used in previous MEC studies has been less than 200 respondents. The MECAnalyst software in this study is used to generate the HVMs. The dominant pathways of the HVMs for each situation including the central codes are also examined and discussed.

Table 6.1 is based on the attributes developed from the pilot study (for further detail see Chapter 4) and the phrases employed in ladders that are mentioned during the interview sessions. The new concepts associated with attributes that emerge from the process of laddering are presented in Table 6.2.

Table 6.1: Attributes used in main study based on attributes developed during the pilot study.

Coding	Representative phrases employed in ladders
Inexpensive	Inexpensive, buy bulk at cheap price
Food quality	Freshness, better quality, better quality than imported products, natural
Healthy foods	No chemical pesticide or treatment, hygienic, good nutrition
Good taste	Tastes good, original taste
Enjoyable foods	Enjoy the foods
Easy for preparation and cooking	Easy to buy (near to home), easy to get, easy to prepare, easy to cook
Trust the foods	'Halal' foods, trust the quality, food safety issues
Familiar products	Usually buy or use the products, preferred choice
Food options	Wide variety of products, available in a small package
Patriotism	Like local product, consumer ethnocentrism, prefer Indonesian products
Support for local communities	Support local farmers, economically viable for farmers, support local traditions, support local government's policies
Bring back memories	Recall childhood memories, individual experiences

Special occasions	Offered special discount, offered on special occasions, namely fasting month (*Ramadhan* month), *Idul Fitri* festival, Christmas day, unique product, only once a year
Good value of food (price-quality)	Good price for good quality

Table 6.2: New attributes that emerged from the main study.

Coding	Representative phrases employed in the ladders
Expensive	Expensive
Boring, disliked	Boring, disliked
Limited variation of foods	Limited variation of foods and limited taste
Match with taste	Match with Minangkabau or Javanese taste, local is my taste, children love the taste, match my taste
Tradition	It is a local custom, local tradition
Local symbol	Local symbol of foods, local symbol of tradition

Table 6.3 presents a set of consequences derived from the pilot study (for details of the consequences involved see Chapter 4) and the representative phrase mentioned in ladders during the main study by respondents. Table 6.4 lists the new consequences mentioned by respondents during the main study.

Table 6.3: Consequences used in the main study based on consequences developed during the pilot study.

Coding	Representative phrases employed in ladders
Good health	Good for health, good nutrition for children growth
Save money	Save my money, less transportation cost, less cost for hospital because of good health
Controlling budget	Controlling budget, no debt, money enough for a month, controlling budget to meet all needs, controlling money for daily food
Save time and energy	Save my time, save my energy, short time to prepare or cook, not very tired
Time for other things	Time for working, time for taking care of family, social activities, religious activity

Money for other things	Pay bills, money for needs and schooling, money for unexpected needs, money for charity, money for travelling as a pilgrim to Mecca, Saudi Arabia
Local economic growth	Support economic growth, support local or national economy, support local products, decreasing unemployment, increasing local economic growth
Prosperous family/area/nation	Agricultural sector better in Indonesia, prosperous farmers, family, area or nation, promoting and developing local products, to empower local community
Can afford	Can afford, affordable products
Practical implication of foods	Practical implication of foods, not very busy with daily cooking
Social interaction	Share foods with large family or neighbours, to strengthen relationship with family, friends and neighbours, engaging with farmers and local communities
Earn money*	Earn more money*
Self-esteem	Greater self-esteem
Self-confidence	Greater self-confidence if my children are successful
Social equity and security	No gap between the rich and the poor

The coding denoted by an asterisk is unique to Indonesian consumers as there are very few previous studies linking this phrase to MEC theory which mentioned 'earn money' as one of the consequences of their study.

Table 6.4: New consequences emerging from the main study.

Coding	Representative phrases employed in the ladders
Family eats a lot	Family eats a lot, more dishes available for family
Family eats less	Family eats less, wasting food
Knowledge of food	Knowledge of traditional or local foods, knowledge of food variations, knowledge of local symbol, knowledge of a tourist destinations including the foods available
Sustain local resources and local culture	Sustain local resources, sustain local custom, sustain local tradition

Table 6.5 presents the values used in the main study that are included in Kahle's List of Values and Rokeach's Values.

Table 6.5: Values used in the main study.

Coding	Representative phrases employed in the ladders
Fun and enjoyment of life	Quiet life, enjoy the life, establish life, have a good sleep, having no problems, feeling mentally and physically stable, enjoy as Indonesian people
Self-respect	Can give benefits to other people, proud of being a successful family, being well-respected by other nations, better Indonesia, Indonesia will be more respected by other countries, proud of having travelled to a specific place
Sense of accomplishment	Get a better future for children or family, deposit for pension fund, finish all housework and tasks, completed another task
Warm relationship with others and family	No arguing with husband, quiet and harmonious family, warm relationship with others, enjoy time with family
Life satisfaction	Satisfying to complete all jobs and tasks for family, satisfying physically and mentally
Happy	Happy, happy to help husband for support to family economy, not annoyed
Thanks God*	Thanks be to God*
Good health is the most important thing in life*	Health is the most important thing in life*

The codings denoted by an asterisk is unique for Indonesian consumers. These values are not listed in Rokeach Values or Kahle's List of Values.

6.3 Generating a Hierarchy Value Map (HVM)

The Hierarchy Value Map (HVM) is a tree-like network that is an aggregated diagram of a cognitive structure that has three hierarchical levels: attributes, consequences and values. The HVM is introduced to develop marketing strategies (Bourne and Jenkins 2005). All interview data from the laddering procedure become the input into a Summary of Implication Matrix (SIM). The link of an attribute (A_j) to a consequence variable (C_k) is recorded in an A_jC_k cell in a SIM. The total frequency of the attributes-consequence (A-C) linkages is

recorded in a tabulated SIM (Reynolds and Gutman, 1988). The same procedure is employed for the consequence-value (C-V) linkages.

An approach involving a comparison of the number of times each variable is mentioned as the end versus the origin of a relationship can be used to order the matrix (Bagozzi and Dabholkar 2000, Pieters et al. 1995). The ratios or indexes of the number of times are referred to 'in-degree' and 'out-degree' ratios or indexes respectively. The in-degree ratio is the sum of the frequencies in which each variable serves as the object or end of linkages with other variables. The out-degree ratio is the sum of the frequencies that each variable serve as the source or means of linkages for a particular variable. The in-degree ratios are obtained by summing the values in the column in the SIM whereas the out-degree ratios are calculated by summing the row of a particular variable (Pieters et al. 1995).

Pieters et al. (1995) suggested that at this stage a concept of the abstractness ratio could be used to examine which variables served as the means or ends in the attribute-consequence-value (A-C-V) hierarchies. Following Pieters et al. (1995), the abstractness ratio can be calculated by

$$\mathbf{Abstractness\,ratio} = \frac{(\mathbf{in - degree})}{(\mathbf{in - degree + out - degree})}$$

The value of the abstractness ratio can range from 0 to 1. The higher the abstractness ratio indicates that the variable predominantly serves as the end which represents the larger proportion of variable connection over other variables. On the other side, the smaller the abstractness ratio indicates that the variables are mentioned as the source to the other variables.

Pieters et al. (1995) also suggested that a centrality index could be explained as how frequently a particular relationship was involved in linkages with other relationships:

The higher the centrality index, the larger the proportion of connections in the variables structure that run through the particular variable (Pieters et al. 1995, p. 222).

The centrality index can be calculated as

$$\text{Centrality index} = \frac{(\text{in - degree + out - degree})}{(\text{the sum of active cells})}$$

The next step in constructing a HVM is to identity a 'cut-off level'. A simple 'rule of thumb' for the cut-off level is suggested by Reynolds and Gutman (1988), that researchers may try multiple cut-off levels and choose the HVM that leads to an interpretable and informative solution. It is usually from 3 to 5 relationships for 50 to 60 respondents. However, it typically involves a cut-off level of 4 relationships from 50 respondents and 125 ladders that will represent two thirds of the relationships between elements. The key decision to construct the HVM is to determine which cells or linkages in the SIM should be portrayed in the HVM as the dominant relationships in the matrix. Pieters et al. (1995) suggested that the proportion of active links at or above the cut-off level and the proportion of active cells at or above the cut-off level could be an additional method to use in determining the cut-off level. Pieters et al. (1995, p. 238) stated that:

> In choosing a cut-off level, we tried to account for a large percentage of the total number of connections that subjects made between goals with a relatively small number of cells in the implication matrix.

Two examples illustrate the procedure used.

1. Pieters et al. (1995) chose a cut-off level of 4 that could account for 72 per cent of active linkages at or above the cut-off level and using 13 per cent of active cells at or above the cut-off level that involved 51 respondents.

2. Bagozzi and Dabholkar (1994) chose a cut-off level of 4 that could account for 62 per cent of active linkages at or above the cut-off level and accounting for 8 per cent of active cells at or above the cut-off level that involved 133 respondents.

Thus, a cut-off level represented between 60 to 70 per cent of active links at or above the cut-off level (Reynolds and Gutman, 1988, Pieters et al, 1995, Bagozzi and Dabholkar, 1994) and was considered adequately representative for choosing the cut-off level. A multi trying cut-off level can be used in order to get the best HVMs that are easy to interpret with fewer cross links. In this study, the number of respondents is 533, with the total number of linkages varies from 2510 to 5050 relationships for each consumption situation. However, previous studies using MEC approach recorded that the number of respondents was less than 200 people. Therefore, the percentage of active links at or above a certain cut-off level can be used for an MEC study with a large number of respondents.

6.3.1 The motivation for purchasing of local foods for daily eating

The first consumption situation relates to preparing breakfast, lunch and dinner for a family for everyday meals during a week. It is emphasized that the most common situation is for a family to buy fresh local foods. Table 6.6 presents the abstractness ratio and the centrality index for daily eating.

Table 6.6: The Abstractness Ratio (AR) and the Centrality Index (CI) for daily eating.

Attributes			Consequences			Values		
Content Codes	AR	CI	Content Codes	AR	CI	Content Codes	AR	CI
Inexpensive	0.07	0.06	Enjoyable food	0.28	0.01	Sense of accomplishment	0.61	0.03
Match with taste	0.08	0.01	Good taste	0.35	0.01	Warm relationship with family and others	0.62	0.01
Food quality	0.09	0.04	Can afford	0.44	0.04	Thank God	0.78	0.01
Healthy food	0.11	0.01	Social interaction	0.48	0.01	Self-respect	0.79	0.01
Easy for preparation and cooking	0.12	0.06	Practical implication of food	0.5	0.01	Fun and enjoyment of life	0.81	0.03
Familiar products	0.14	0.01	Save time and energy	0.51	0.03	Life satisfaction	0.83	0.01
Trust the foods	0.2	0.01	Save money	0.52	0.11	Happy	1	0.1
Options	0.22	0.01	Family eat a lot	0.53	0.02			
Support for local communities	0.23	0.01	Time for other things	0.53	0.07			
			Money for other things	0.54	0.1			
			Controlling budget	0.54	0.04			
			Earn money	0.54	0.02			
			Good health	0.55	0.12			

The abstractness ratio for attributes ranges from 0 to 0.23. The attributes with a lower abstractness ratio (inexpensive) appear to refer to tangible attributes, and attributes with a higher abstractness ratio involve a 'match with taste', 'food quality', 'healthy foods', 'easy for preparation and cooking', 'familiar products', 'trust the foods', 'options', and 'support local communities'. These attributes seem to refer to relatively intangible attributes. The 'sense of accomplishment', 'warm relationship with family and others', 'thank God', 'self-respect', 'fun and enjoyment of life', 'life satisfaction', and 'happy' are the goals that the consumers seek to obtain when purchasing local foods for daily eating. These values range from 0.61 to 1.0. Furthermore, the remaining elements or coding serve as consequences. The A-C-V order is consistent with the MEC model developed by Olson and Reynolds (2003). In the context of centrality, 'good health' has the highest centrality index (0.12) followed by 'save money' (0.11), 'happy' (0.10), 'money for other things' (0.10), 'time for other things' (0.07), 'inexpensive', (0.06) and 'easy for preparation and cooking' (0.06). Table 6.7 summarises the statistics involved in choosing a cut-off level for every day eating.

Table 6.7: The statistics for choosing a cut-off level for every day eating.

Cut-off level (1)	Active cells in the SIM (2)	Links in the SIM (3)	Content codes at a particular cut-off (4)	Active cells at or above cut-off level (%) (5)	Active linkages at or above cut-off level (%) (6)
1	3135	5335	57	100	100
2	3119	5050	44	54.3	94.7
3	3102	4868	39	39.7	91.2
4	3094	4727	37	32.2	88.6
5	3082	4603	35	27.2	86.3
6	3062	4523	33	24.7	84.8
7	3053	4433	32	22.3	83.1
8	3053	4356	32	20.5	81.6
9	3043	4268	31	18.7	80.0
10	3011	4160	29	16.8	78.0
11	2911	4090	28	15.7	77.0
12	2991	4068	28	15.4	76.3
13	2950	3948	26	13.8	74.0
14	2904	3857	24	12.7	72.3
15	2904	3759	24	11.5	70.5
16	2845	3684	22	10.7	69.1
17	2828	3636	21	10.3	68.2

18	2779	3585	20	9.8	67.2
19	2696	3513	17	9.1	65.8
20	2696	3494	17	9.0	65.6

Reynolds and Gutman (1988) argued that, in general the goal of MEC approach was to portray the dominant associations in the SIM in which only cells with association at or above the cut-off level were considered for inclusion in the HVM. According to Pieters et al. (1995) and Bagozzi and Dobhalkar (2000), the proportion of active links at or above the cut-off level between 60 to 70 per cent will be chosen to examine and evaluate the HVM. Thus, in this current study the starting point of multi trying the cut-off level of 15 with the number of active cells in the SIM is 2904 (column 1), accounting for 70.5 per cent of active linkages at or above the cut-off level (column 6) , using 11.5 per cent of the active cells at or above the identified cut-off level. Figures 6.1 to 6.3 present the main hierarchy of local foods for daily eating at starting point of cut-off level of 15. Figures 6.4 to 6.10 depict the HVM for the cut-off level of 16 to 19. The multi trying cut-off levels presented as HVMs are used to examine the HVM sensitivity in terms of which variables or linkages in or out for different levels of cut-off in order to determine the final HVMs that are easy to interpret with fewer cross links.
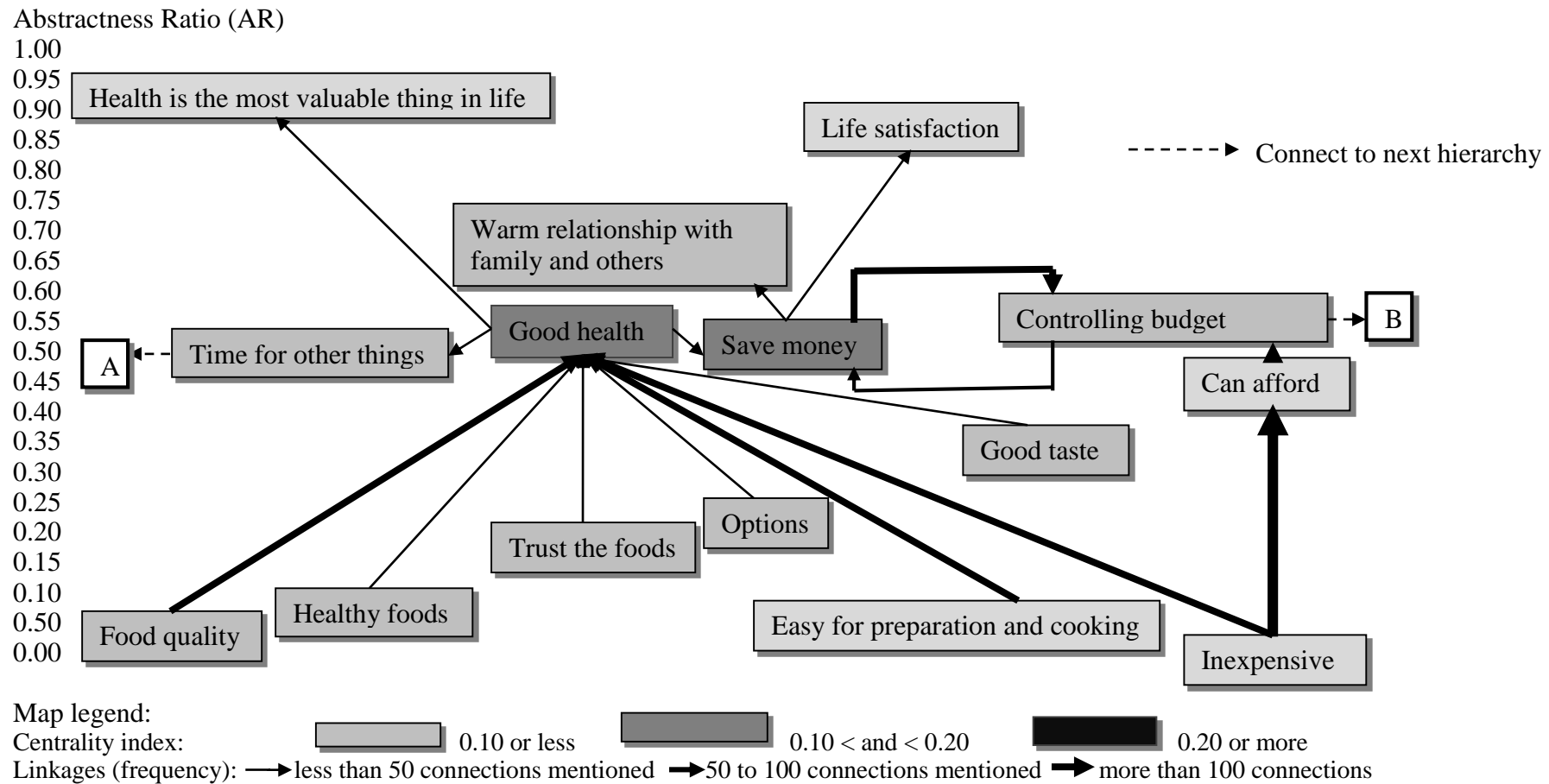
Figure 6.1: The Hierarchy Value Map (HVM) of local foods for everyday eating at cut-off level of 15.

Abstractness Ratio (AR)

1.00	Happy
0.95	
0.90	Fun and enjoyment of life
0.85	
0.80	
0.75	
0.70	A
0.65	
0.60	Sense of accomplishment
0.55	
0.50	Save time and energy — Time for other things — Earn money — Money for other things — Controlling budget
0.45	
0.40	
0.35	B
0.30	
0.25	
0.20	
0.15	Easy for preparation and cooking
0.10	
0.50	
0.00	

Map legend:
Centrality index: 0.10 or less   0.10 < and < 0.20   0.20 or more
Linkages (frequency): ⟶ less than 50 connections mentioned ➔ 50 to 100 connections mentioned ➔ more than 100 connections

Figure 6.2: The HVM of local foods for everyday eating at cut-off level of 15.

Abstractness Ratio (AR)

1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.50
0.00

Happy

Family eats a lot

Practical implication of food

Enjoyable food

Options

Easy for preparation and cooking
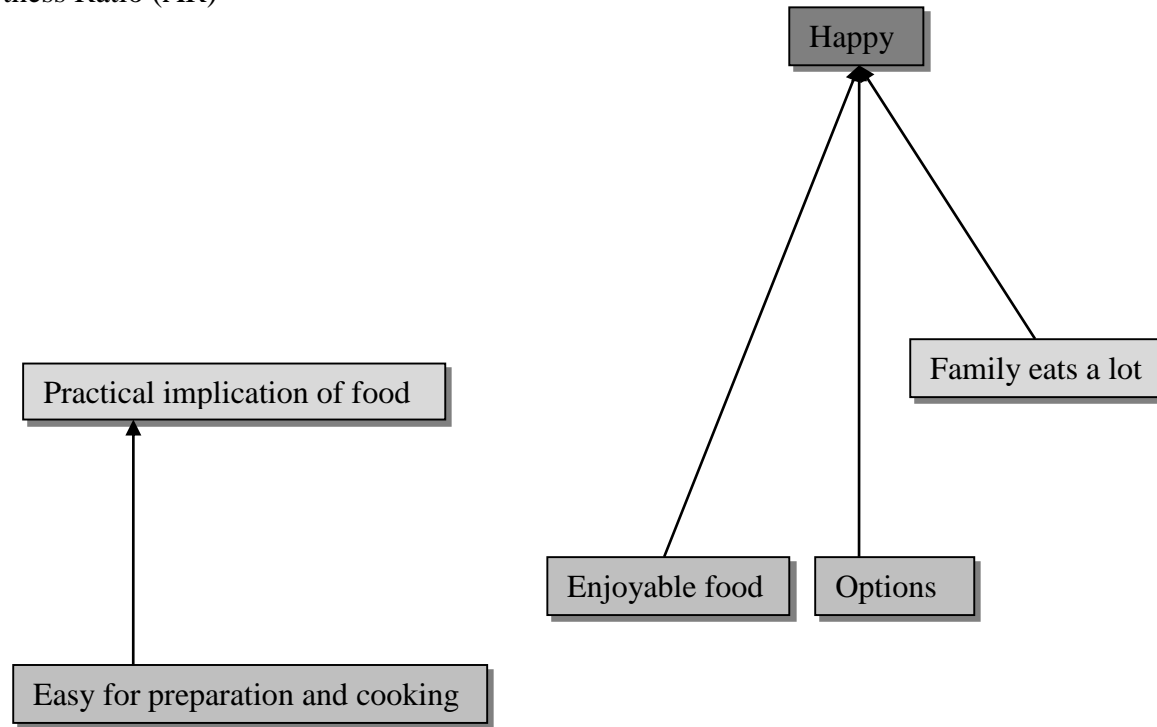
Figure 6.3: The HVM of local foods for everyday eating at cut-off level of 15.
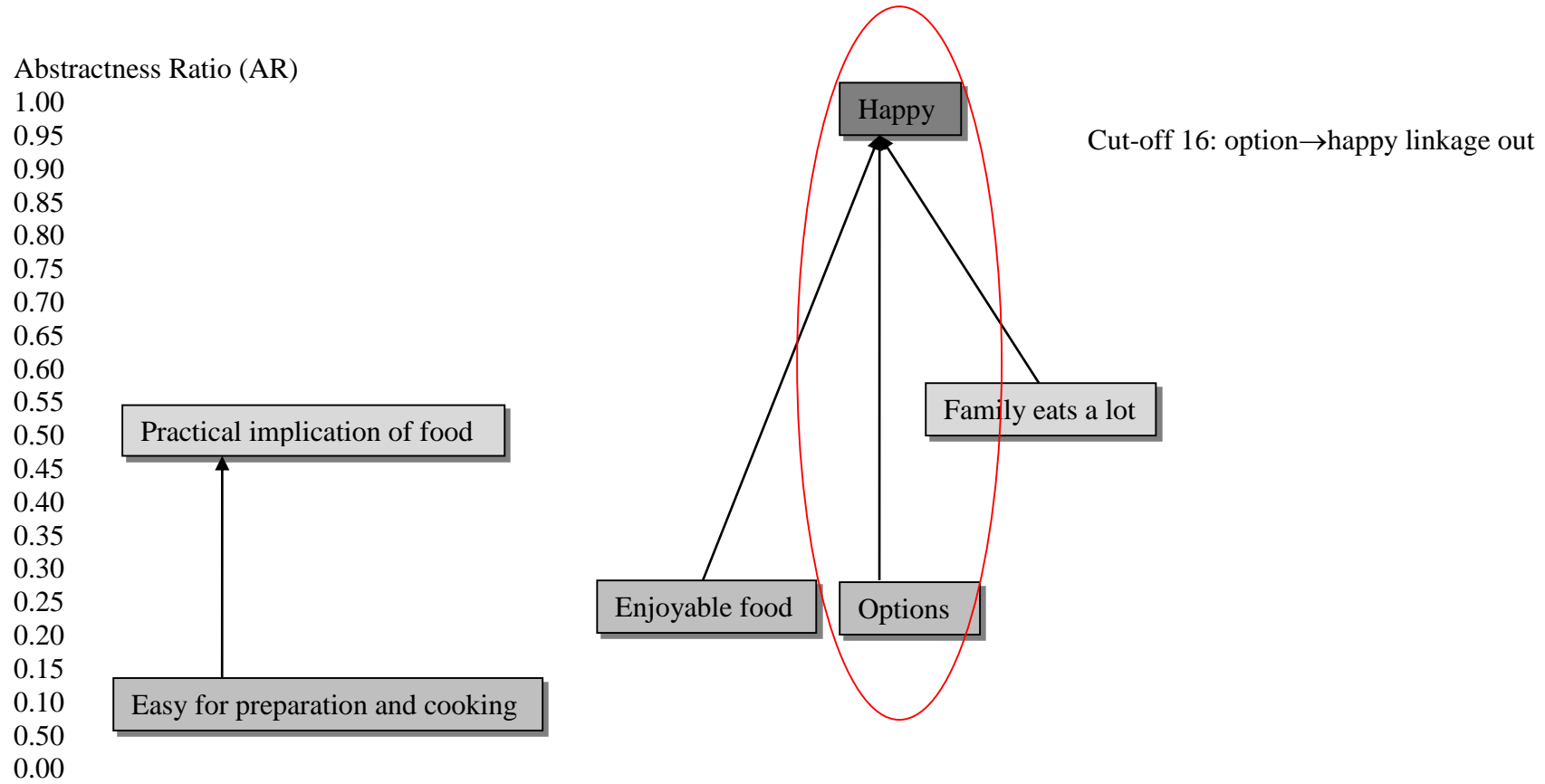
Figure 6.4: The HVM of local foods for everyday eating at cut-off level of 16.
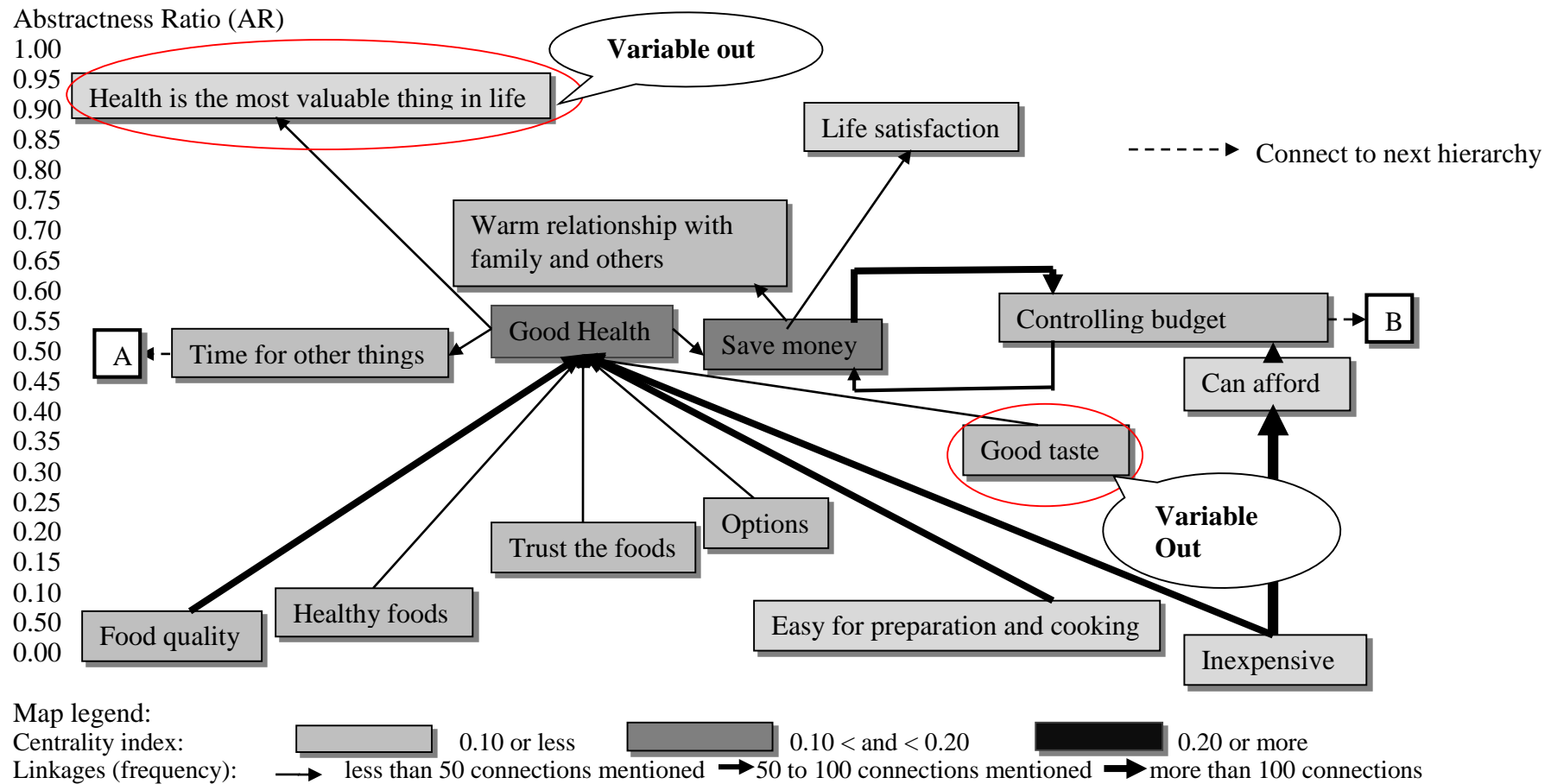
Figure 6.5: The HVM of local foods for everyday eating at cut-off level of 17.
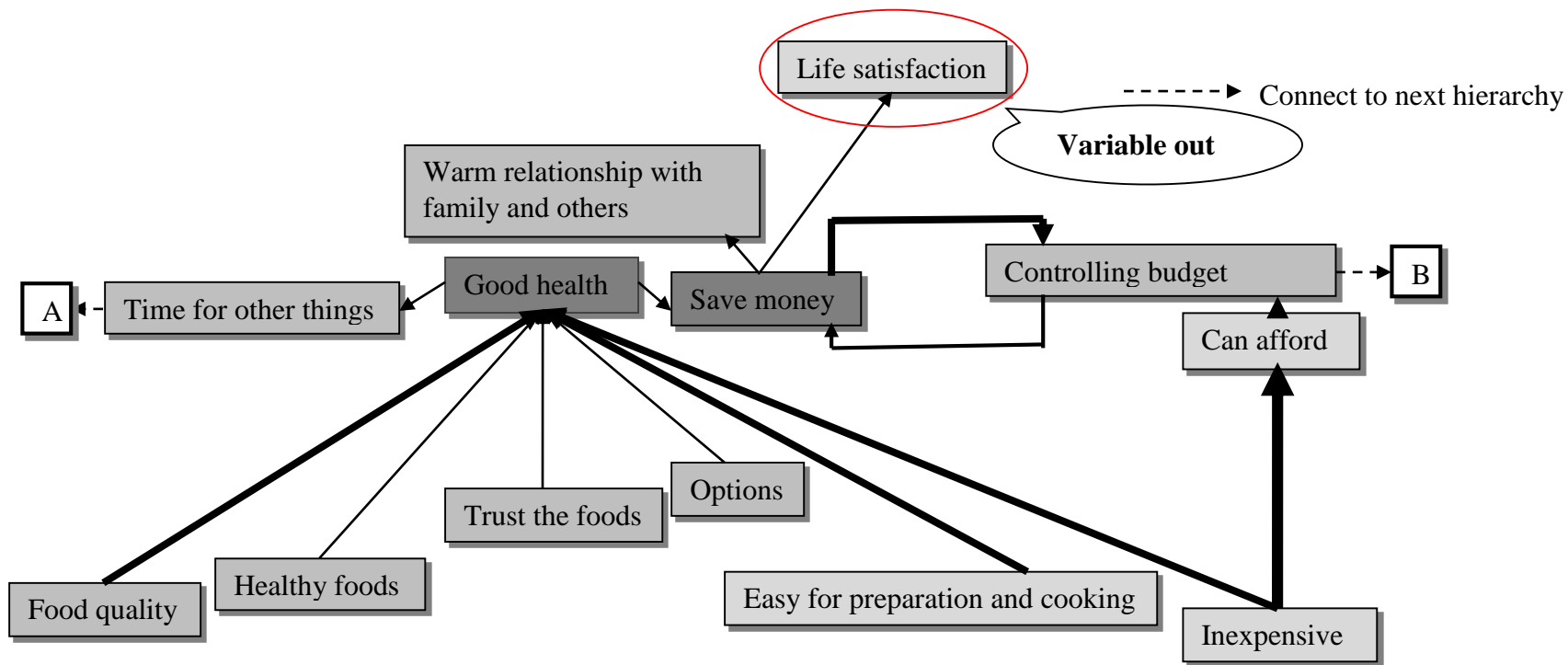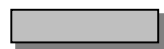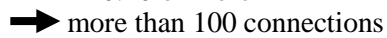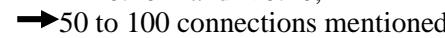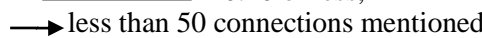
Figure 6.6: The HVM of local foods for everyday eating at cut-off level of 18.

Abstractness Ratio (AR)

1.00	
0.95	Happy
0.90	
0.85	
0.80	
0.75	**Linkage Out**
0.70	
0.65	
0.60	
0.55	Family eats a lot
0.50	Practical implication of food
0.45	
0.40	**Linkage out**
0.35	
0.30	
0.25	Enjoyable food
0.20	
0.15	
0.10	Easy for preparation and cooking
0.50	
0.00	
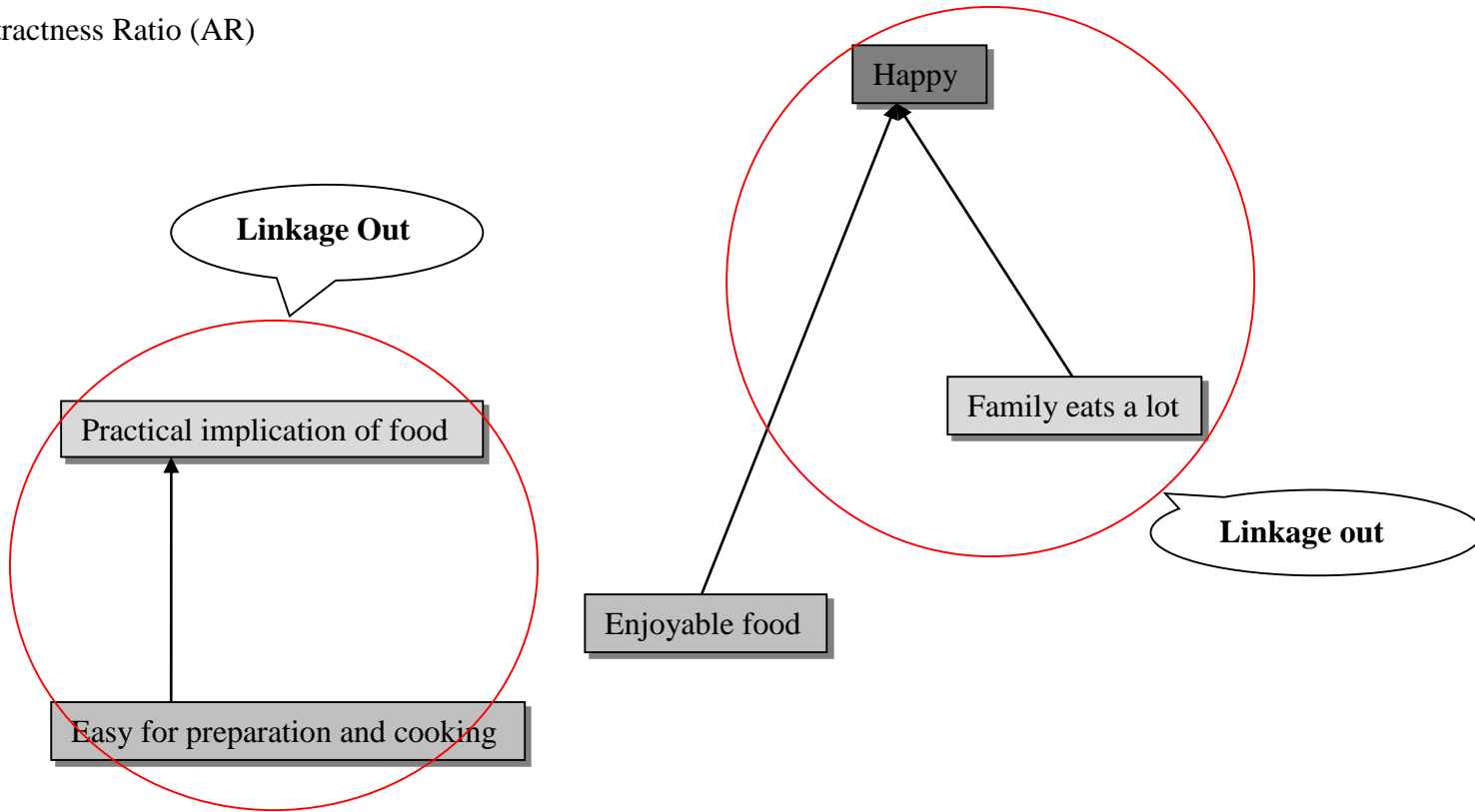
Map legend:

Centrality index: 0.10 or less   0.10 < and < 0.20   0.20 or more

Linkages (frequency): less than 50 connections mentioned 50 to 100 connections mentioned more than 100 connections

Figure 6.7: The final HVM of local foods for everyday eating at cut-off level of 19.

119

Abstractness Ratio (AR)

1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.50
0.00

- - - - - ► Connect to next hierarchy
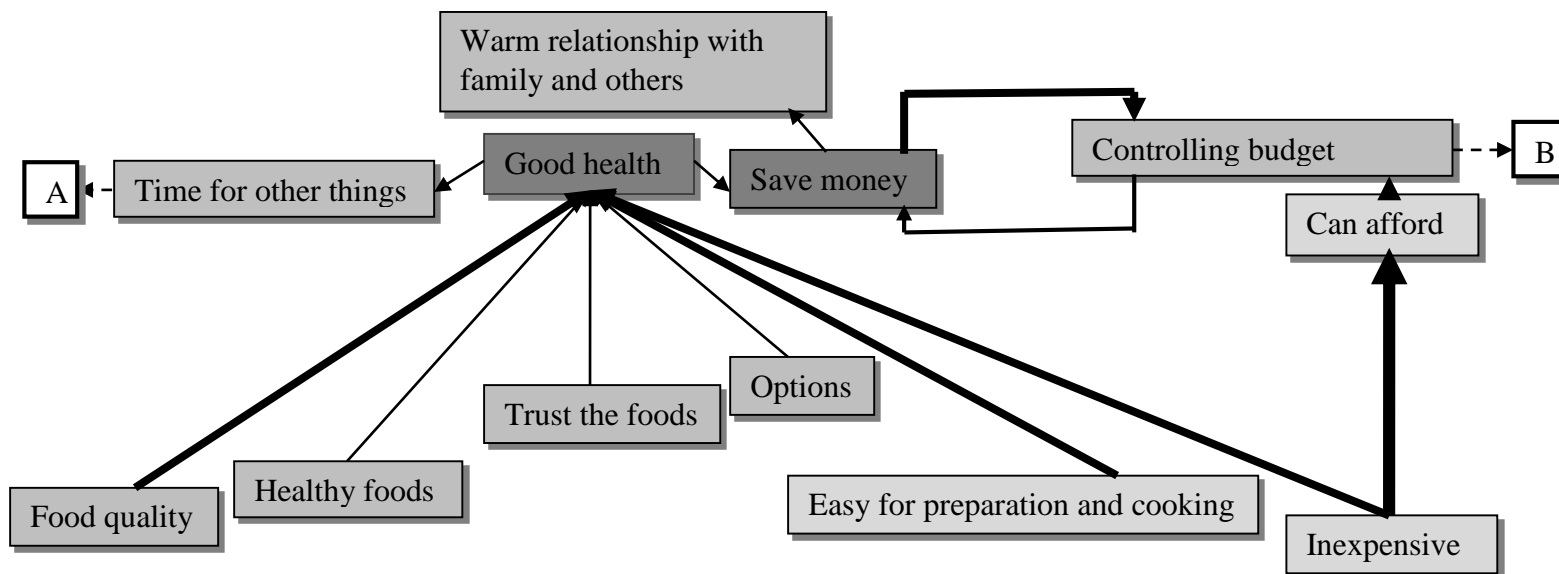
Warm relationship with family and others

Good health

Save money

Controlling budget

B

A

Time for other things

Can afford

Options

Trust the foods

Food quality

Healthy foods

Easy for preparation and cooking

Inexpensive

Map legend:
Centrality index: [   ] 0.10 or less   [   ] 0.10 < and < 0.20   [   ] 0.20 or more
Linkages (frequency): ──► less than 50 connections mentioned   ──► 50 to 100 connections mentioned   ──► more than 100 connections

Figure 6.8: The final HVM of local foods for everyday eating at cut-off level of 19.
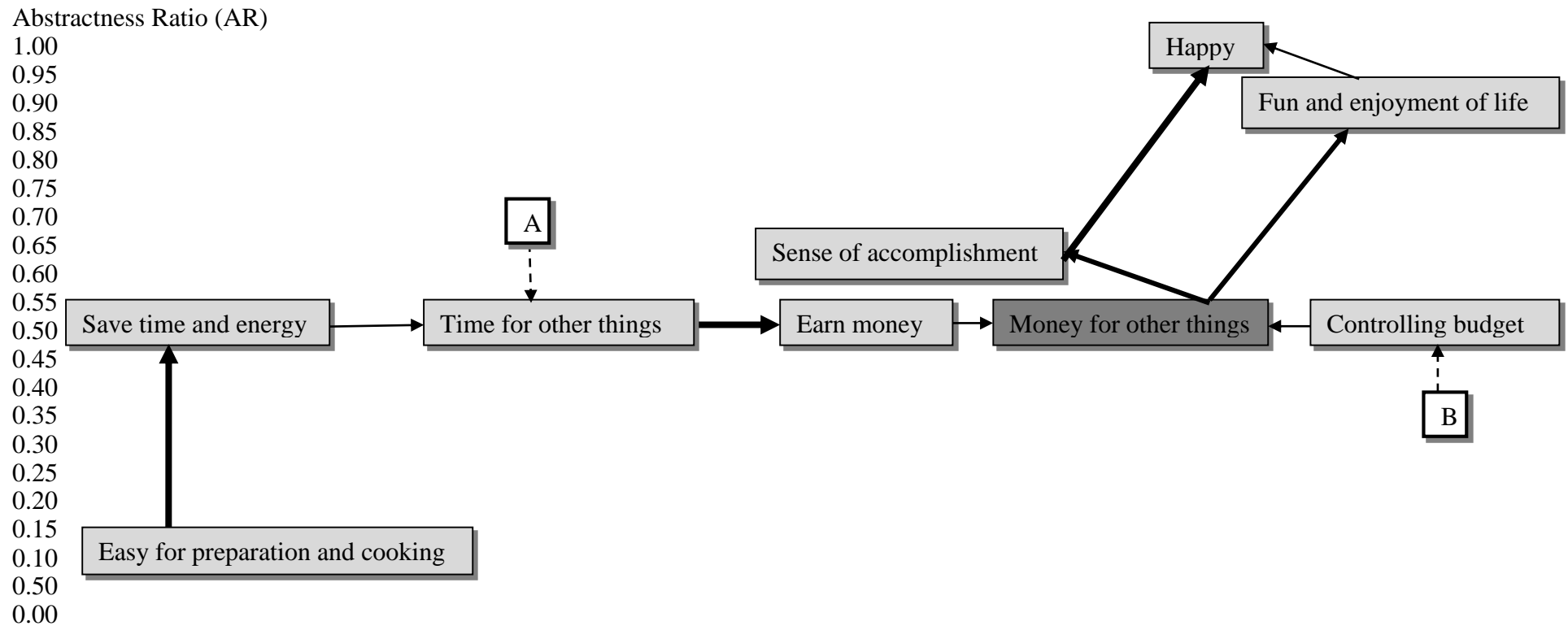
120

Abstractness Ratio (AR)

Happy

Fun and enjoyment of life

A

Sense of accomplishment

Save time and energy

Time for other things

Earn money

Money for other things

Controlling budget

B

Easy for preparation and cooking

Map legend:
Centrality index: 0.10 or less   0.10 < and < 0.20   0.20 or more
Linkages (frequency): → less than 50 connections mentioned   → 50 to 100 connections mentioned   → more than 100 connections

Figure 6.9: The final HVM of local foods for everyday eating at cut-off level of 19.

Abstractness Ratio (AR)

1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.50
0.00

Happy

Enjoyable food
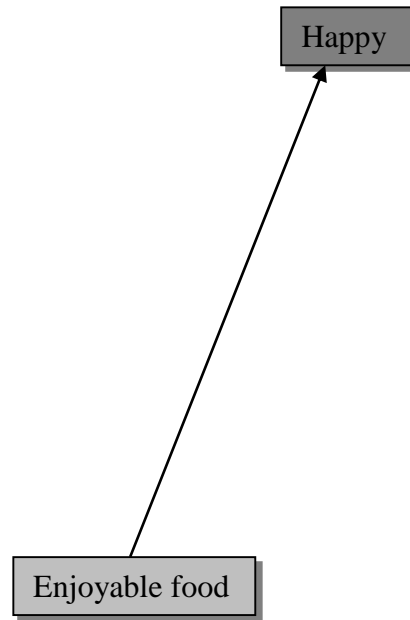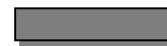
Map legend:
Centrality index: 0.10 or less   0.10 < and < 0.20   0.20 or more
Linkages (frequency): → less than 50 connections mentioned → 50 to 100 connections mentioned, → more than 100 connections
Figure 6.10: The final HVM of local foods for everyday eating at cut-off level of 19.

The HVMs at cut-off level of 15 has one main hierarchy and two small hierarchies. Then, the sensitivity of HVM at cut-off level 16 to 20 is presented in Table 6.8.

Table 6.8: The sensitivity of HVMs at different cut-off levels.

Cut-off level	The variables or linkages out of the HVMs for each cut-off level
16	'Option→happy' linkage out of the main hierarchy
17	'Health is the most important thing' variable out of the main hierarchy 'Good taste→happy' linkage emerges as a new one
18	'Life satisfaction' variable out of the main hierarchy
19	Two linkages: 'easy for preparation and cooking→practical implication of food', and 'family eat a lot→happy' out of the main hierarchy
20	Cut-off level of 20 remain the same with cut-off level of 19

In this study, a final cut-off level of 19 is selected. As is shown in Table 6.7, the proportion of active linkages at this cut-off level is 65.8 per cent and this accounts for 9.1 per cent of the active cells at or above the cut-off level in the SIM. This cut-off is chosen because it includes the majority of the associations with a minimum of crossing line through the two main hierarchies and one small hierarchy, this making it easier to interpret as is suggested by Pieters et al. (1995).

In examining the final hierarchy, three themes are chosen from the viewpoint of the centrality index and the number of times the linkages are mentioned by consumers. These themes relate to (a) save money and controlling budget, (b) health benefits, and (c) saving time and energy in preparation. With respect to these themes, 'happy', 'sense of accomplishment' and 'fun and enjoyment of life' are values that can be assigned to those themes as well as to the marketing strategy. Three of the chosen motivations are considered in the sections that follow.

(1) Save money and controlling budget

First pathway: Inexpensive→Can afford→Controlling budget→Money for other things→Sense of accomplishment and fun and enjoyment of life→Happy.

Second pathway: Inexpensive→Good health→Save money→Controlling budget→ Money for other things→ Sense of accomplishment and fun and enjoyment of life→ Happy.

(2) Health benefits

The main chain is Food quality→Good health→Save money→ Controlling budget→ Money for other things→ Sense of accomplishment and Fun and enjoyment of life→ Happy.

(3) Saving time and energy

Easy for preparation and cooking→Save time and energy→ Time for other things→ Earn money→Money for other things→ Sense of accomplishment and Fun and enjoyment of life→ Happy.

The results show that consumers considered saving money and controlling budget with related to price, health benefits and saving time and energy in preparation as the main motivations to purchase local foods for daily eating. In previous studies, food choices were also considered to be a complex function of non-sensory characteristics (Prescott et al. 2002), including price and health issue (Vickers 1993). Furthermore, Ostrom (2006, p. 74) emphasized that:

Price becomes increasingly important as income levels went down. In this study, price became an increasingly important consideration because 57 per cent of all respondents have a lower family income that is less than 2 million IDR per month or approximately less than 200 AUD per month. The 'save money and controlling budget' theme has a relationship with 'cheaper price', and 'money for other things'. Values as the goals in this theme are 'sense of accomplishment', 'fun and enjoyment of life' and 'happy'. These findings are also similar to what previous studies reported that 'good value of money' (Khan and Prior, 2010) and 'cheaper prices' (Siriex et al. 2011) are the main reasons for buying local foods for daily diets. The following transcriptions illustrate the 'save money' motivation of a particular consumer.

Transcription One

(Female, age 30-40 years old, Senior High School level, housewife, family income less than 2 million IDR, urban area, Sundanese ethnic group).

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: Mhhh… It's cheap you know.

I: Why is inexpensive important for you?

R: We can save our money.

I: Why is saving money important for you?

R: I should save my money because I wish to open a new business.

I: Why is opening a new business important for you?

R: So, my children can go to university to get a better education.

I: Why is getting a better education for your children important for you?

R: If you graduate from university, you will have a better opportunity to get a good job.

I: Why is getting a good job for your children important for you?

R: I am feeling and satisfying myself because I am a successful mother who brings to my children to a better quality of life.

I: Why is being a successful mother who brings to your children to a better quality of life important for you?

R: Happy.

Transcription two

(Female, age 50-60 years old, entrepreneurship, university education level, family income 10-12 million IDR, urban area, Sundanese ethnic group).

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): I prefer to buy local foods.

I: Why are local foods important for you?

R: Local foods are fresh and have a good quality.

I: Why are good quality and fresh are important for you?

R: No doubt to get a good health.

I: Why is good health important for you?

R: I am a business woman, so I need to be in a good condition for my daily activities. By working, I can get some money to cover my daily needs.

I: Why is getting some money to fulfil daily your needs important for you?

R: We can give thank to Allah (God).

I: Why is thanking important for you?

R: For a quiet.

I: Why is quite life important for you?

R: No more. If your life is quiet, you no longer want to achieve.

Another motivation running through many of the interviews is 'health benefits'. However, the health claim in this study has a strong association with 'saving money', 'controlling budget', and 'money for other things', and the final end to achieve is 'sense of accomplishment', 'fun and enjoyment of life', and 'happy'. For example, one respondent responded to a laddering interview is recorded as below.

Transcription three

(Female, age 30-40 years old, Junior High School level, housewife, family income less than 2 million IDR, rural area, Javanese ethnic group).

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): I prefer to buy local foods.

I: Why are local foods important for you?

R: It's natural.

I: Why is natural important for you?

R: If we buy natural foods, they will lead us to having good health.

I: Why is good health important for you?

R: If I am healthy, I can run my shop and get some money for my daily needs.

I: Why is getting some money to fulfil your daily needs important for you?

R: If I can fulfil my daily needs, my life is quiet.

I: Why is a quiet life important for you?

R: You ask me questions that confuse me. A quiet life.

The motivation concerned with: 'save time and energy' has a similar consideration of three consequences that are related to financial issues and health claim motivations such as 'saving money', 'controlling budget', and 'money for other things'. Furthermore, the final end 'to achieve' remains the same for two other motivations. The following transcription illustrates 'save time and energy' motivation with a particular consumer.

Transcription four

(Female, age 30-40 years old, Junior High School level, vendor, family income less than 2 million IDR, rural area, Sundanese ethnic group).

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: Mhhh… easy to buy. Some street vendors are around my housing complex every day. They sell vegetables, fruit, tempeh, tofu, chicken and others. Everything you need for daily cooking is available from a street vendor.

I: Why is having easy to buy food important for you?

R: We can prepare lunch or dinner quickly.

I: Why is preparing foods quickly important for you?

R: So that I can go to the local market earlier. I am also a vendor.

I: Why is going to the market earlier important for you?

R: To get some money.

I: Why is earning some money important for you?

R: For saving money and for having money for unexpected needs, to pay bills and other people.

I: Why is saving money important for you?

R: Happy. Having paid a deposit, I am happy.

I: Why are paying bills and others important for you?

R: Happy.

6.3.2 The motivation for purchasing of local foods when eating at restaurants

The second consumption situation is related to eating local foods at a restaurant. It is common between Indonesian families to invite the family, friends and colleague to eat out at a restaurant in order to strengthen relationships and friendships or to celebrate a special event such as a birthday, a graduation and other special occasions. A restaurant is deemed to be 'a place where people pay to sit and eat meals that are cooked and served on the premises'. Table 6.9 lists the abstractness ratio and the centrality index of local foods for eating at a restaurant and Table 6.10 summarises the statistics for identifying a cut-off level for eating at a restaurant.

Table 6.9: List of Abstractness Ratio (AR) and the Centrality Indexes (CI) of local foods for eating at restaurants.

Attributes			Consequences			Values		
Content Codes	**AR**	**CI**	Content Codes	**AR**	**CI**	Content Codes	**AR**	**CI**
Inexpensive	0.05	0.06	Boring, dislike	0.28	0.01	Warm relationship with family and others	0.64	0.02
Food quality	0.07	0.02	Can afford	0.35	0.01	Sense of accomplishment	0.67	0.01
Match with taste	0.08	0.02	Practical implication of food	0.44	0.04	Self-respect	0.7	0.01
Healthy foods	0.09	0.03	Good value of food (price-quality)	0.48	0.01	Fun and enjoyment of life	0.86	0.03
Limited variation of products	0.09	0.01	Money for other things	0.51	0.08	Life satisfaction	0.92	0.03
Familiar products	0.1	0.02	Family eats a lot	0.52	0.04	Happy	0.98	0.13
Enjoyable food	0.2	0.03	Save money	0.52	0.09			
Easy for preparation and cooking	0.23	0.02	Time for other things	0.52	0.04			
Trust the foods	0.23	0.01	Social interaction	0.52	0.02			
Options	0.24	0.01	Money for other things	0.54	0.1			
Good taste	0.28	0.03	Good health	0.53	0.11			
Support local communities	0.3	0.01	Save time and energy	0.53	0.02			
Bring back memories	0.32	0.01	Controlling budget	0.54	0.07			
			Earn money	0.54	0.01			
			Knowledge of foods	0.73	0.01			

It can be seen from Table 6.9 that 'inexpensive', 'food quality', 'match with taste', 'healthy foods', 'limited variation of products', 'enjoyable foods', 'easy for preparation and cooking', 'trust the foods', 'options', 'good taste', 'support local communities', and 'bring back memories' are attributes from the point of abstractness with the values of the ratios ranging from 0.05 to 0.32. It seems that 'inexpensive' refers to a relatively tangible attribute with an abstractness ratio of 0.05. The higher abstractness ratios appear to be more intangible attributes. Furthermore, the salient goals for eating at restaurant have been identified. "Warm relationship with family and others', 'sense of accomplishment', 'self-respect', 'fun and enjoyment in life', life satisfaction' and 'happy' are the goals for eating local foods at a restaurant and the remaining variables are the consequences. It is an unusual pattern that the 'knowledge of food' variable is the value in this consumption situation. This value has thus been moved to the consequences column. There are two reasons behind this move. First, the 'knowledge of foods' variable (abstractness ratio 0.73) is not a part of Rokeach values nor Kahle's List of Values. Another reason is that the 'knowledge of foods' variable in the other three consumption situation operates as a consequence rather than a value. However, the A-C-V order is consistent with the MEC model in general.

In the context of centrality index, 'happiness' (0.13) has the highest centrality index following by 'good health' (0.11), 'save money' (0.09), 'money for other things' (0.08), 'controlling budget' (0.07) and 'inexpensive', (0.06). Interestingly, the 'social relationship' variable (AR=0.52) are expected to be a psychological or social consequence with a higher score than other tangible or functional consequences of product-use ('money for other things', 'good health, 'save time and energy', 'controlling budget', and 'earn money'). It can be suggested that when respondents reply to the MEC questions, some of them linked attributes directly to psychological consequences. For example the linkage:

Cheap→ Social interaction (enjoy chatting with friends)→ Happy

This link appears frequently in the laddering interviews and may influence the abstractness ratio. However, based on the centrality index this link is not strong enough to be the main motivation. Following the cut-off procedure suggested by Pieters et al. (1995) and Bagozzi and Dobhalkar (2000), Table 6.10 presents the statistics for choosing the cut-off level based on the Summary of Implication Matrix (SIM).

Table 6.10: The statistics for choosing a cut-off level for eating at a restaurant.

Cut-off level (1)	Active cells in the SIM (2)	Links in the SIM (3)	Content codes at a particular cut-off level (4)	Active cells at or above cut-off level (%) (5)	Active linkages at or above cut-off level (%) (6)
1	2071	2763	44	100	100
2	2070	2588	43	60.7	93.7
3	2057	2424	39	42.2	87.7
4	2048	2289	37	32.1	82.8
5	2028	2209	34	27.6	79.9
6	2000	2134	31	24.3	77.2
7	1982	2092	30	22.7	75.7
8	1949	2001	27	19.8	72.4
9	1935	1897	26	16.9	68.7
10	1903	1807	24	14.6	65.4
11	1903	1747	24	13.3	63.2
12	1903	1703	24	12.4	61.6

The number of active linkages at or above a cut-off of 8 accounts for 72.4 per cent of active linkage and represents 16.9 active cells. After the other cut-off levels from 8 to 12 are tried, a final cut-off level of 10 is selected. The reason of this choice is that when choosing cut-off levels of 11 and 12, some of the A-C-V linkages in the main hierarchy are difficult to interpret. The final hierarchy is presented in Figures 6.11 and 6.12. The hierarchy at a cut-off level of 10 has the proportion of active linkages at or above the cut-off level 65.4 and 14.6 per cent of active cells in the implication matrix, respectively.

Abstractness Ratio (AR)
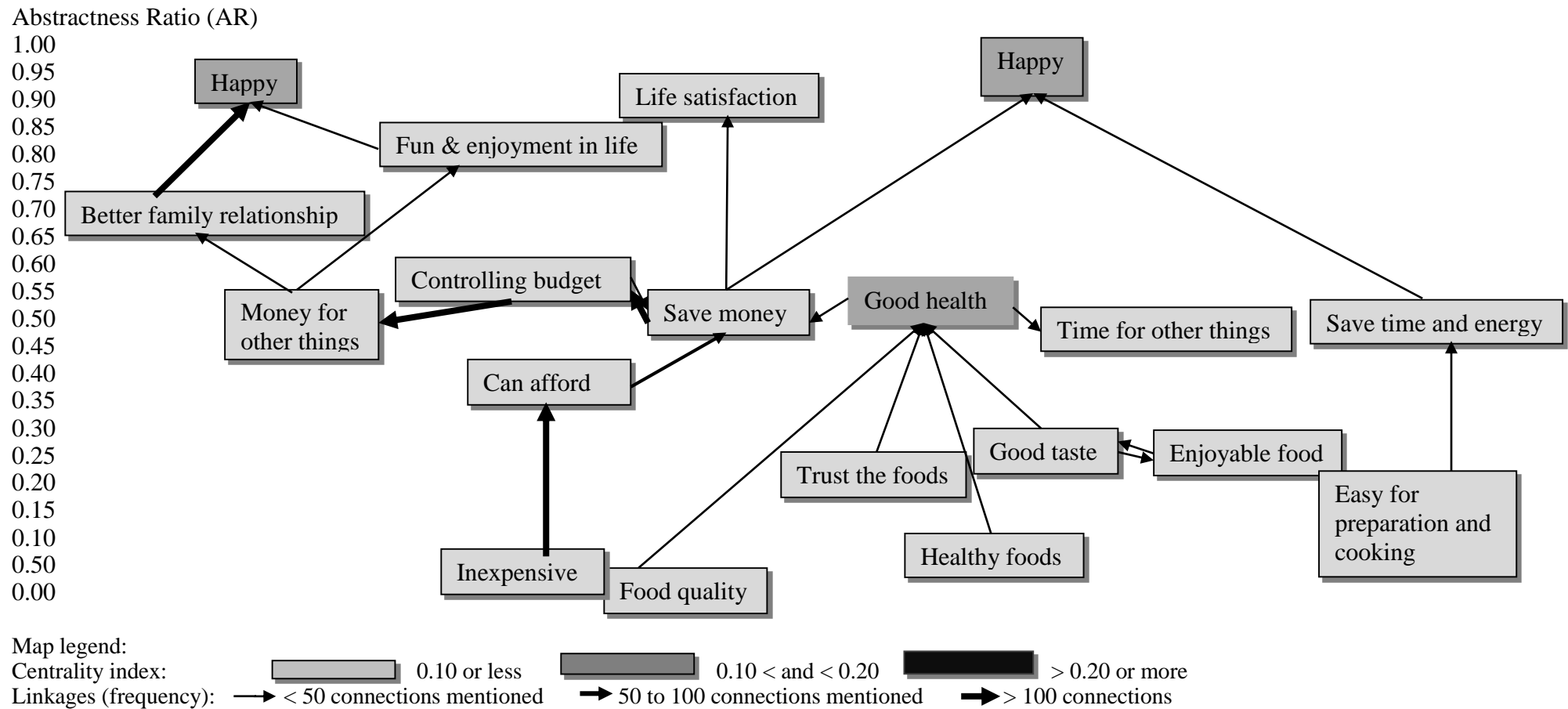
Figure 6.11: The HVM of eating local foods at a restaurant at cut-off 10.

Abstractness Ratio (AR)

1.00	
0.95	Life satisfaction
0.90	
0.85	Happy
0.80	
0.75	
0.70	
0.65	
0.60	
0.55	
0.50	Family eats a lot
0.45	
0.40	
0.35	Social interaction
0.30	
0.25	
0.20	
0.15	
0.10	Familiar products — Variation of products
0.50	
0.00	Match the taste
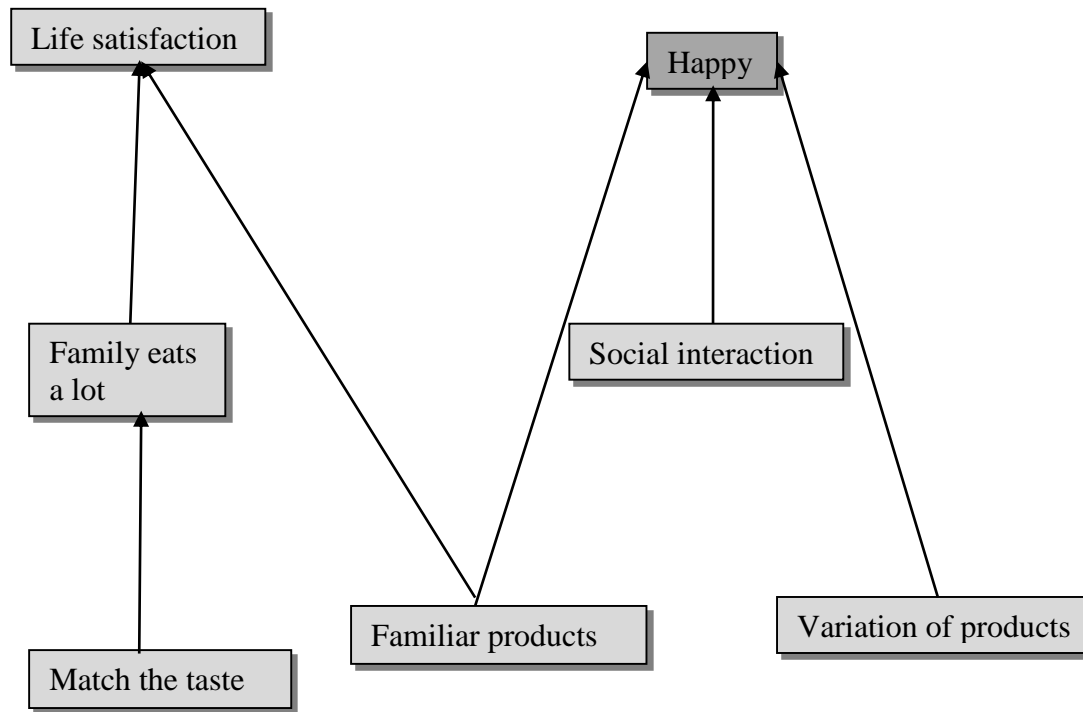
Map legend:
Centrality index: [   ] 0.10 or less   [   ] 0.10 < and < 0.20   [   ] > 0.20 or more
Linkages (frequency): ⟶ < 50 connections mentioned ➤ 50 to 100 connections mentioned ➤ more than 100 connections

Figure 6.12: The HVM of eating local foods at a restaurant at cut-off 10.

Similar to the procedure employed in previous consumption situation, the main set of findings has two motivations:

(1) Health benefits

Healthy food→Good health→ Save money→Controlling budget→ Money for other things→Warm relationship with family and others→ Happy.

(2) Save money

Inexpensive→ Can afford→Save money→Controlling budget→Money for other things→ Warm relationship with family and others→Happy.

The results show that 'warm relationship with family and others' and 'happy' are the goal values of consumers who buy local foods when they are eating at a restaurant. This indicates that consumers have goals to strengthen relationships and friendships with family, friends, and colleagues by eating out. However, 3.2 per cent of respondents answer that they never eat at restaurants.

The most dominant relationship is the link: Inexpensive→Can afford→Save money→Controlling budget→Money for other things→ Warm relationship with family and others→Happy. This relationship indicates that the financial issue involving 'price', 'save money', and 'money for other things' are still important considerations related to the social relationships, with a subsequent lead to happiness. Prices are also reported as the prominent factors by restaurants' owner and consumers for providing and buying foods when eating out (Hargreavest et al. 2002, Green and Doherty, 2009). Consequently, financial and health claims can be used as a marketing strategy to promote local foods when eating at restaurants. The following examples of interviews with particular consumers are provided.

Transcription five

(Female, age 30-40 year old, Senior High School education level, housewife, income less than 2 million, Javanese, rural areas)

Interviewer (I): Have you ever eaten at a restaurant to treat your family, friends and colleagues by eating out to strengthen relationships, friendships or for celebrating a special occasion such as a birthday, graduation and other events?

Respondent (R): Yes, I have.

I: When you eat at a restaurant, the restaurant may prepare the food from fresh foods that come from local, national or imported foods? In this case what fresh foods do you prefer, local, national or imported foods?

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R: Local foods.

I: Why are local foods important for you?

R: It is cheap.

I: Why is cheap important for you?

R: Yeah … It is the food that I can afford.

I: Why is buying food that you can afford important for you?

R: So that I can use my money for other needs.

I: Why is money for other things important for you?

R: So the family will be stable with no problems.

I: Why is a stable family important for you?

R: Happy. Happy life.

Transcription six

(Female, age 40-50 years old, Senior High School education level, housewife, family income 6-8 million IDR/month, Sundanese, urban areas)

Interviewer (I): Have you ever eaten at a restaurant to treat your family, friends and colleagues by eating out to strengthen relationships, friendships or for celebrating a special occasion such as a birthday, graduation and other events?

Respondent (R): Yes, I have.

I: When you eat at a restaurant, the restaurant may prepare the food from fresh foods that come from local, national or imported foods. In this case what fresh foods do you prefer, local, national or imported foods?

R: Local foods.

I: Why are local foods important for you?

R: Freshness. Local foods have a good quality.

I: Why is good quality important for you?

R: Surely because of good health.

I: Why is good health important for you?

R: If we are in a good health and condition, we do not need to spend money for going to hospital or to buy medicine.

I: Why is saving your money for health important for you?

R: So I can save my money and use it for other needs such as pay bills or going somewhere else for travelling. Actually I want to save my money to go to Mecca as a pilgrim.

I: Why is money for other things important for you?

R: My family is happy and I am happy too.

Transcription seven

(Female, age 40-50 years old, Primary School education level, housewife, family income less than 2 million IDR, Sundanese, rural areas).

Interviewer (I): Have you ever eaten at a restaurant to treat your family, friends and colleagues by eating out to strengthen relationships, friendships or for celebrating a special occasion such as a birthday, graduation and other events?

Respondent (R): Yes, I have.

I: When you eat at a restaurant, the restaurant may prepare the food from fresh foods that come from local, national or imported foods. In this case what fresh foods do you prefer, local, national or imported foods?

R: Local foods.

I: Why are local foods important for you?

R: Cheap.

I: Why is cheap important for you?

R: I only have a little money, so I can only afford local foods.

I: Why is 'can afford' important for you?

R: So that I can control my budget. All the money we get for a month should be fit with all our expenses during a month.

I: Why is controlling your budget important for you?

R: Yeah, I do not need to argue with my husband, if I can control my budget well.

I: Why is not arguing with your husband important for you?

R: Quiet life and I am happy.

6.3.3 The motivation for purchasing of local foods when travelling

The third consumption situation is related to travelling which involves food as a tourist attraction or buying food as a souvenir or buying food as a part of agro-tourism. This is emphasised as being common in Indonesia for a person to buy food for her or himself, to share food as a souvenir with other families, neighbours or colleagues while or after travelling. Table 6.11 summarises the abstractness ratio and the centrality index of local foods when travelling from the Summary Implication Matrix (SIM) and Table 6.12 lists the statistics for choosing a cut-off level for eating local foods when travelling.

Table 6.11: List of Abstractness Ratio (AR) and the Centrality Index (CI) of local foods when travelling.

Attributes			Consequences			Values		
Content Codes	AR	CI	Content Codes	AR	CI	Content Codes	AR	CI
Local symbol	0	0.03	Boring, dislike	0.38	0.01	Warm relationship with family and others	0.67	0.02
Limited variation of products	0	0.01	Can afford	0.44	0.03	Self-respect	0.71	0.02
Patriotism	0	0.01	Family eats less	0.5	0.01	Sense of accomplishment	0.79	0.01
Trust the foods	0	0.01	Knowledge of foods	0.51	0.04	Fun and enjoyment of life	0.92	0.01
Match with taste	0.05	0.01	Prosperous family/area/nation	0.51	0.01	Life satisfaction	0.94	0.03
Support local communities	0.1	0.04	Save time and energy	0.51	0.01	Happy	0.97	0.12
Inexpensive	0.12	0.06	Time for other things	0.51	0.03	Unhappy	0.98	0.02
Food quality	0.15	0.02	Controlling budget	0.52	0.02			
Easy for preparation and cooking	0.17	0.01	Earn money	0.52	0.01			
Familiar products	0.17	0.01	Save money	0.52	0.06			
Healthy food	0.23	0.01	Share foods with others	0.52	0.02			
Enjoyable food	0.26	0.01	Family eats a lot	0.53	0.03			
Good taste	0.28	0.02	Local economic growth	0.53	0.01			
			Money for other things	0.53	0.07			
			Good health	0.54	0.06			
			Social interaction	0.54	0.04			

On this occasion, the attributes that have a lower abstractness ratio from 0 to 0.12 appear to be classified into tangible attributes involving 'local symbol', 'limited variation of products', 'patriotism', 'trusts the foods', 'match with taste', 'support local communities', and 'inexpensive', whereas the remaining attributes are categorized into intangible attributes. The findings show the values that consumers seek to obtain for local foods when travelling are 'warm relationship with family and others', 'self-respect', 'sense of accomplishment', 'fun and enjoyment in life', 'life satisfaction', and 'happy'. In terms of consequences, 'social relationship' seems to be an important consideration for consumers with the centrality index 0.04 that reflects the important social benefit for travellers. However, few travellers mention that local foods are not interesting as the food souvenir as well as the part of agro-tourism. 'Boring or dislikes' is the negative consequence associated with unhappy feeling. In general, the A-C-V order of eating local foods when travelling is consistent with the MEC model (Olson and Reynolds 2003, Reynolds and Gutman 1988).

In the context of the centrality index, being 'happy' (0.12) is the highest centrality index following by 'money for other things' (0.07), 'save money' (0.07), 'good health' (0.06) and 'inexpensive' (0.06), respectively. Interestingly, the consequences that have a middle value of the centrality index (0.04) associated with social relationship motivation. These consequences are 'support local communities', 'knowledge of foods', and 'social interaction'. However, the social relationship motivation is less considered by travellers when purchasing local foods than are 'save money' and 'good health' motivations. Following the procedure developed by Pieters et al. (1995), and Bagozzi and Dobhalkar (2000), Table 6.12 presents the statistics for choosing a cut-off level for buying local foods when travelling.

Table 6.12: The statistics for choosing a cut-off level for local foods when travelling.

Cut-off level (1)	Active cells in the SIM (2)	Links in the SIM (3)	Content codes at a particular cut-off level (4)	Active cells at or above the cut-off level (%) (5)	Active linkages at or above the cut-off level (%) (6)
1	1960	2510	59	100	100
2	1955	2254	55	54.9	89.8
3	1935	2052	49	37	81.8
4	1908	1881	43	27	74.9
5	1876	1769	38	22	70.5
6	1858	1689	36	19.2	67.3
7	1838	1569	34	15.7	62.5
8	1823	1471	33	13.2	58.6
9	1809	1383	32	11.3	55.1
10	1795	1302	31	9.7	51.9

Similar to the procedure suggested by Pieters et al. (1995) and Bagozzi and Dobhalkar (2000), multiple cut-off levels from 5 to 8 are tested to obtain a final hierarchy with minimum cross-links which is easy to interpret. The final hierarchy selected is the cut-off level of 8. The percentage of links at or above cut-off 8 is 58.6 per cent and accounts for 13.2 per cent active cells in the SIM. Figures 13 to 16 present the HVM for buying local foods when travelling.
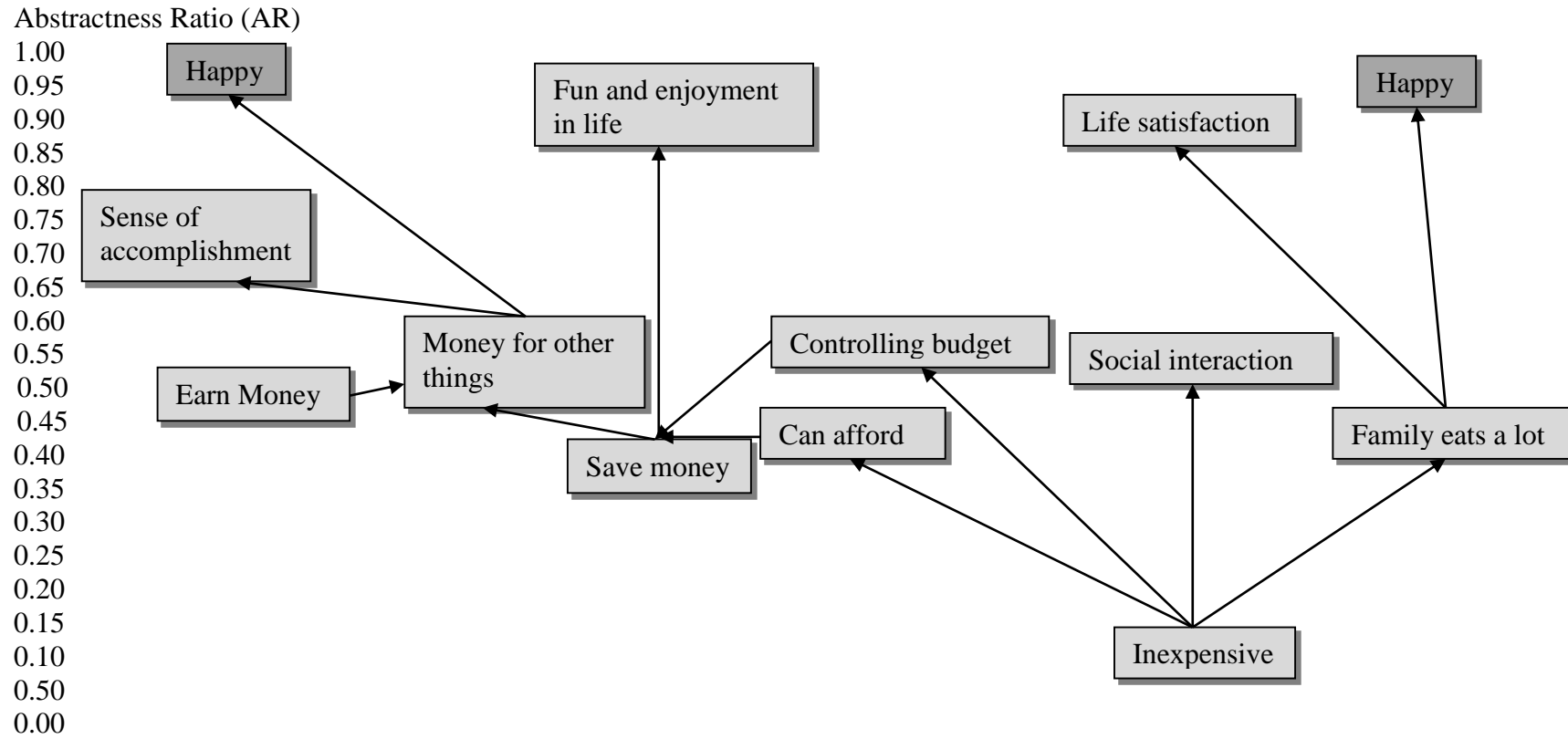
Abstractness Ratio (AR)

Figure 6.13: The HVM of eating local foods when travelling at cut-off level of 8.

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Abstractness Ratio (AR)
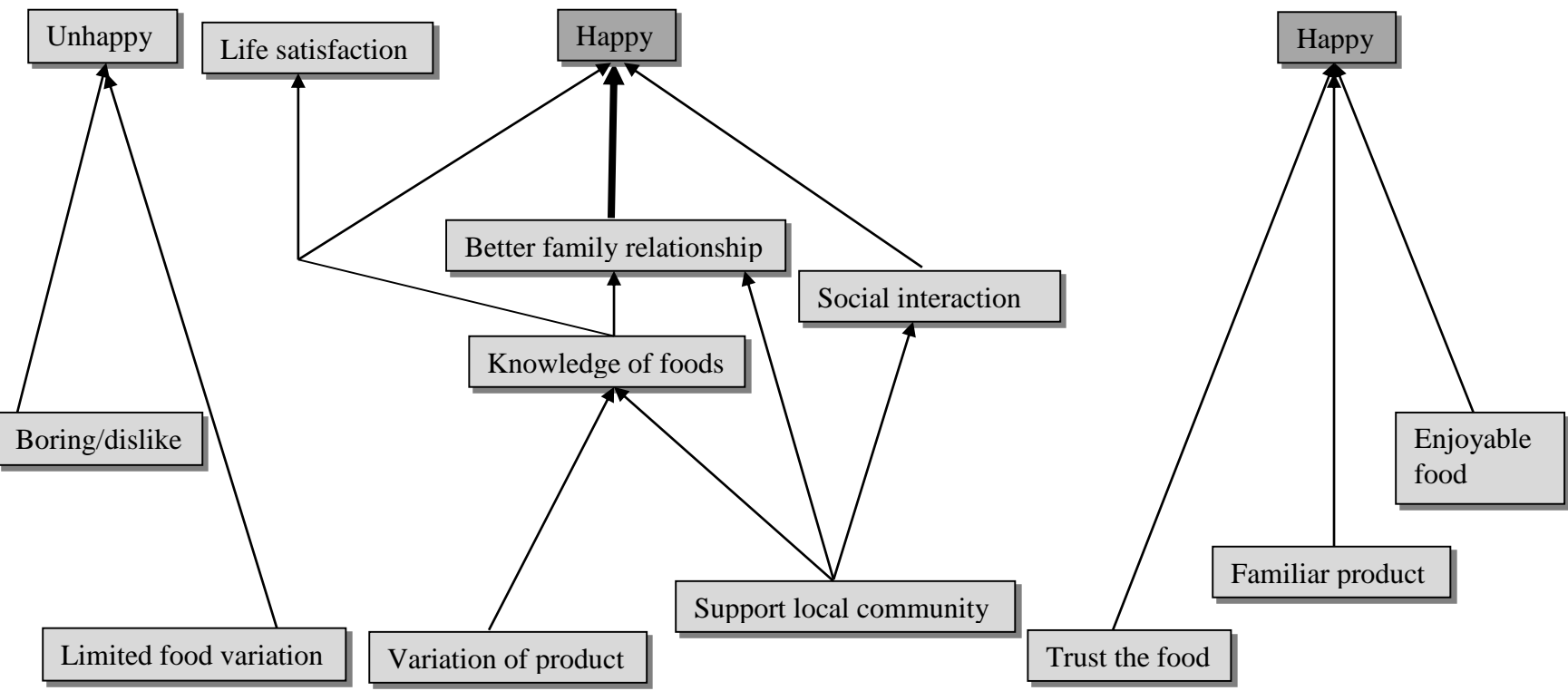
Figure 6.14: The HVM of eating local foods when travelling at cut-off level of 8.

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Abstractness Ratio (AR)

1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.50
0.00

Happy

Life satisfaction

Time for other things

Save money

Good health

Family eats a lot

Time for other things

Save money

Save money

Good taste

Healthy food

Enjoyable foods

Food quality

Match with taste

Easy for preparation
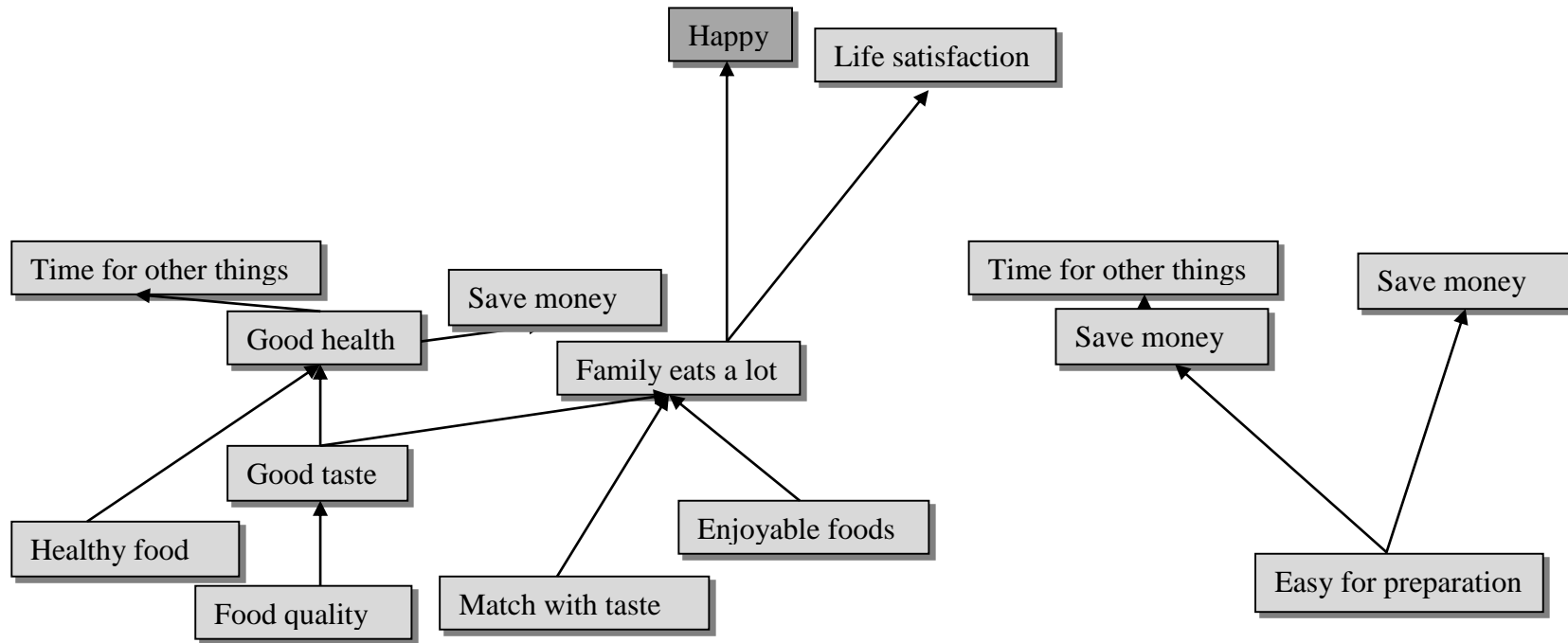
Map legend:
Centrality index: 0.10 or less   0.10 < and < 0.20   > 0.20 or more
Linkages (frequency): ⟶ < 50 connections mentioned   ➤ 50 to 100 connections mentioned   ➤ more than 100 connections
Figure 6.15: The HVM of eating local foods when travelling at cut-off level of 8.

Abstractness Ratio (AR)
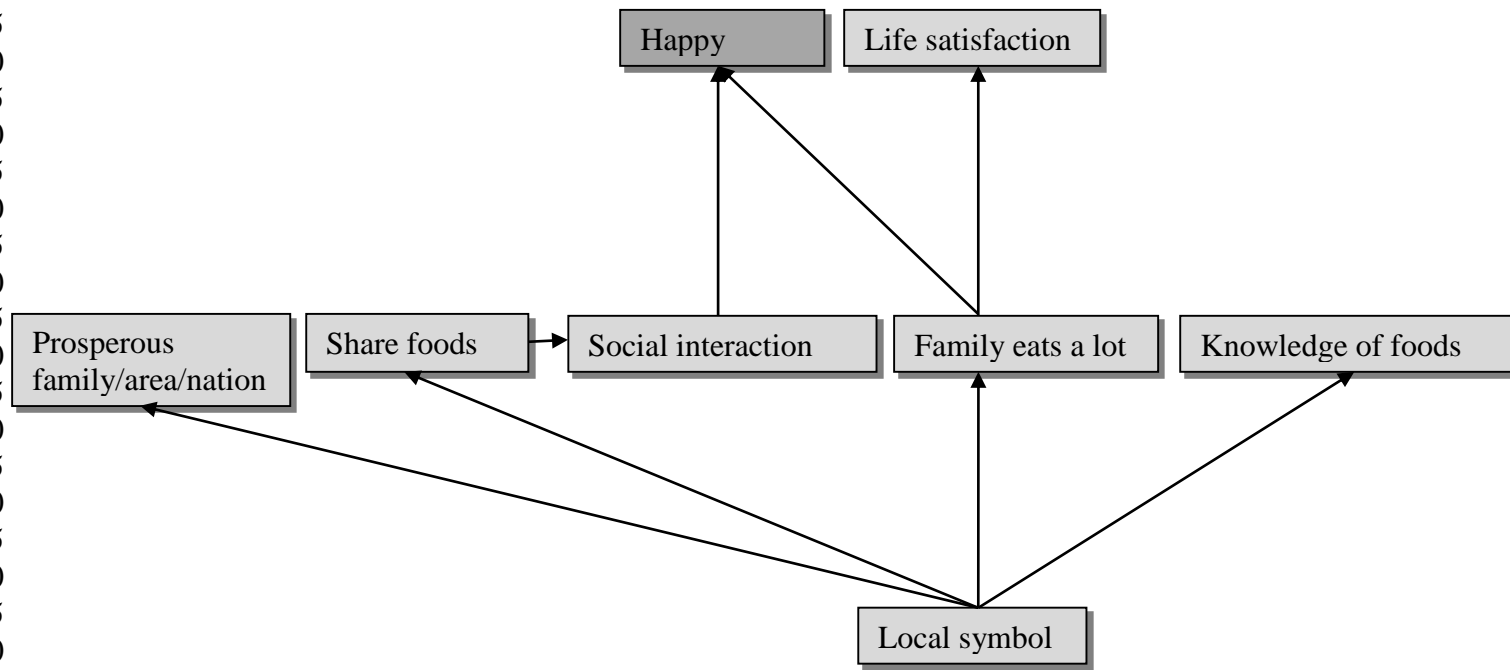
Figure 6.16: The HVM of eating of local foods when travelling at cut-off level of 8.

Based on centrality index and the number of a linkage mentioned by consumers, the main set of findings has two motivations: (a) cheap price and (b) good health.

(1) Save money

First pathway: Inexpensive$\rightarrow$ Can afford$\rightarrow$Save money$\rightarrow$Money for other things$\rightarrow$ Happy.

Second pathway: Inexpensive$\rightarrow$ Controlling budget$\rightarrow$Save money$\rightarrow$Money for other things$\rightarrow$ Happy.

(2) Health benefits

Food quality$\rightarrow$ Good taste$\rightarrow$ Good health$\rightarrow$ Time for other things.

The findings show such financial issues as 'controlling budget', 'saving money', and 'money for other things.' These issues are still the drivers of buying local foods when travelling, leading to happiness. By considering the reciprocal feedback of happiness and financial issues, travellers tend to focus on inexpensive or reasonable prices of foods. The two main motivations identified for this occasion are also similar to those for everyday diets. The following transcriptions illustrate 'saving money' motivation articulated by a particular consumer.

Transcription eight

(Female, age 30-40 years old, primary school education level, farmer, family income less than 2 million IDR/month, Sundanese, rural areas).

Interviewer (I): Have you ever gone somewhere for travelling as a tourist?

Respondent (R): Yes, I have.

I: When you are travelling, you may buy foods as tourist abstraction or buy food as a souvenir or to buy food as a part of agro-tourism. In this case, what fresh food do you prefer, local, national or imported foods?

R: Local foods.

I: Why are local foods important for you?

R: Because it is cheap.

I: Why is cheap price important for you?

R: So we are not out of our budget.

I: Why is controlling your budget important for you?

R: So we can spend money for other needs, like bills.

I: Why is spending your money for other needs such as paying bills important for you?

R: So I can save my money.

I: Why is saving your money important for you?

R: I am happy.

Transcription nine

(Female, age 40-50 years old, university education level, housewife, family income 2-4 million IDR/month, Sundanese, urban area).

Interviewer (I): Have you ever gone somewhere for travelling as a tourist?

Respondent (R): Yes, I have.

I: When you are travelling, you may buy foods as a tourist abstraction or buy food as a souvenir or to buy food as a part of agro-tourism. In this case, what fresh food do you prefer, local, national or imported foods?

R: I prefer local foods.

I: Why are local foods important for you?

R: Because it is cheap.

I: Why is cheap price important for you?

R: So I can save my money.

I: Why is saving your money important for you?

R: I can fix my home.

I: Why is fixing your home important for you?

R: I am happy if we have a nice home. I am not shy if someone comes to my home.

I: Why is not shy if someone comes to your home important for you?

R: Happy.

'Health benefits' is another predominant motivation to be achieved by consumers when travelling. Consumers believe that eating a healthy and good food quality is an important part of maintaining good health. Consequences, good health can help consumers to be more productive to complete their task and jobs. This transcription illustrates the good health motivation with a particular respondent.

Transcription ten

(Female, age 40-50 years old, senior high school education level, entrepreneur, family income less than 2 million IDR/month, Sundanese, urban area).

Interviewer (I): Have you ever gone somewhere for travelling as a tourist?

Respondent (R): Yes, I have.

I: When you are travelling, you may buy foods as a tourist abstraction or buy food as a souvenir or to buy food as a part of agro-tourism. In this case, what fresh food do you prefer, local, national or imported foods?

R: I prefer local foods.

I: Why are local foods important for you?

R: Because of its freshness, good for our health.

I: Why is freshness important for you?

R: Good health.

I: Why is good health important for you?

R: So I have time to do other activities such as sightseeing.

I: Why is doing other activities important for you?

R: Just enjoy the life.

I: Why is enjoying life important for you?

R: I am happy.

Transcription eleven

Female, aged 40-50 years old, university education level, employee, family income 4-6 million IDR/month, the Sundanese, rural area

Interviewer (I): Have you ever gone somewhere for travelling as a tourist?

Respondent (R): Yes, I have.

I: When you are travelling, you may buy foods as a tourist abstraction or buy food as a souvenir or to buy food as a part of agro-tourism. In this case, what fresh food do you prefer, local, national or imported foods?

R: I prefer local foods.

I: Why are local foods important for you?

R: Because it is natural.

I: Why are natural foods important for you?

R: So we have a good health.

I: Why is good health important for you?

R: So I can go around the place to see the view.

I: Why is going around the place important for you?

R: Happy.

6.3.4 The motivation for purchasing of local foods when celebrating religious festivals

The fourth food consumption situation relates to celebrating religious festivals such as *Ramadhan* month, *Idul Fitri*, *Idul Adha*, Christmas day and other important religious festivals. The *Ramadhan* month, called the fasting month, is the ninth month of the Muslim calendar that is based on the lunar cycle of 29 or 30 days. Therefore, the fasting month varies from year to year. When fasting, Muslims refrain from eating and drinking from sunset or *imsak* to sunset or *magrib*. For adult Muslims it is compulsory to fast during the *Ramadhan* month except for the sick, women having their period, the elderly people, pregnant and breastfeeding women and travellers. At the end of *Ramadhan*, Muslims celebrate the *Idul Fitri* festival or called *lebaran* in Indonesia. Normally, there are two three weeks' holiday available to celebrate this festival. This is the time when Muslims visit their families and friends in their neighborhood or even in their native villages. They visit to ask forgiveness and for any committed wrongs in the previous year and for strengthening the family relationship or friendship. *Idul Adha*, called *Lebaran Haji* in Indonesia, is celebrated to commemorate the sacrifice of Abraham for his son upon the God's command. Then, God substituted Abraham's son with an animal. This is the time for pilgrims to perform hajj in Mecca and sacrifice animals that are given to the poor. Christians celebrate Christmas day, called *hari Natal* in Indonesia, for the birth of the prophet Isa or Jesus. When celebrating the religious festivals, it is common to provide traditional foods in a large amount to serve visitors who come to visit on that day. Table 6.13 summarises the abstractness ratio and the centrality index of local foods when celebrating religious festivals, whereas Table 6.14 lists the statistics involved in choosing a cut-off level for celebrating religious festivals.

Table 6.13: List of Abstractness Ratio (AR) and the Centrality Index (CI) of local foods when celebrating religious festivals.

Attributes			Consequences			Values		
Content Codes	**AR**	**CI**	Content Codes	**AR**	**CI**	Content Codes	**AR**	**CI**
Limited variation of products	0	0.01	Can afford	0.44	0.03	Sense of accomplishment	0.68	0.01
Match with taste	0	0.01	Knowledge of food	0.5	0	Warm relationship with family and others	0.7	0.02
Tradition	0.02	0.04	Controlling budget	0.51	0.03	Thank God	0.7	0
Easy for preparation and cooking	0.12	0.05	Save money	0.51	0.09	Self-esteem	0.77	0
Options	0.13	0.02	Time for other things	0.51	0.05	Self-respect	0.79	0.01
Support local communities	0.13	0.01	Earn money	0.52	0.01	Fun and enjoyment of life	0.82	0.02
Inexpensive	0.13	0.06	Money for other things	0.52	0.08	Life satisfaction	0.94	0.02
Food quality	0.19	0.03	Practical implication of food	0.52	0.01	Happy	0.97	0.13
Familiar products	0.25	0.02	Save time and energy	0.52	0.04	Unhappy	1	0
Healthy food	0.27	0.01	Social interaction	0.52	0.02			
Trust the food	0.35	0.01	Family eat less	0.53	0.01			
Enjoyable foods	0.37	0.01	Family eats a lot	0.53	0.03			
Good taste	0.38	0.02	Good health	0.55	0.05			
Boring ,disliked	0.4	0	Sustain local resources and culture	0.58	0.03			
Locally grown	0.4	0	Self confidence	0.65	0.01			
Offering in special occasion	0.4	0	Self confidence	0.65	0.01			

'Limited variation of products' and 'match with taste' are variables with a zero value of abstractness score. This means that almost no respondents mentioned this variable as the source or attribute of a HVM. It appears that consumers are also concerned with a new variable, namely 'sustaining local resources and culture'. This variable is strongly associated with a local custom and tradition that local and traditional foods are commonly served to celebrate the religious festivals. The typical foods served are different for every ethnic group. The Javanese people serve *gudeg* (tiny little pieces of raw jack fruit cooked in a traditional Javanese way), and *opor ayam* (chicken curry with rice cake). The Sundanese people traditionally consume *opor ayam*, fried chicken, *pepes* (food cooked in banana leaf) whereas the Minangkabau serve *rendang* (chunks of beef characterized by brown to black colour of gravy involving coconut milk, chili and spices), *lontong sayur* (vegetables soup with rice cake). Overall, the food taste is sweet in Eastern Java or the Sundanese, salty in Central Java and Yogyakarta or the Javanese and spicy in West Sumatra or the Minangkabau. However, the value of centrality index for sustaining local resources and cultures variable is not very high (0.03) compared to health claims and financial issues as well as time management. In the context of centrality index, 'happiness' (0.13) is the highest value and the most important goal that consumers want to achieve by purchasing local foods. Other important consequences and attributes that are based on the centrality index are 'saving money' (0.09), 'money for other things' (0.08) and inexpensive (0.06). Table 6.14 presents the statistics for choosing a cut-off level.

Table 6.14: The statistics involved in choosing a cut-off level when celebrating religious festivals.

Cut-off level (1)	Active cells in the SIM (2)	Links in the SIM (3)	Codes at a particular cut-off level (4)	Active cells at or above cut-off level (%) (5)	Active linkages at or above cut-off level (%) (6)
1	2070	2792	52	100	100
2	2053	2584	40	58.5	92.6
3	2045	2426	38	42.7	86.9
4	2045	2267	38	32.1	81.2
5	2018	2111	34	24.4	75.6
6	2008	2016	33	20.7	72.3
7	1984	1908	31	17.1	68.4
8	1984	1838	31	15.1	65.9
9	1984	1774	31	13.5	63.6
10	1946	1738	29	12.7	62.3

The cut-off levels of 6 to 10 are tested to obtain the final hierarchy of eating local foods when celebrating religious festivals. A cut-off 8 is chosen that accounts for 65.9 per cent of the linkages and is 15.1 per cent of active cells at or above cut-off of 8. At the cut-of 8 the HVMs are easy to interpret and have minimum cross links. Figures 6.17 to 6.19 depict the HVM of local foods when celebrating religious festivals.

Abstractness Ratio (AR)

1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.50
0.00

Life satisfaction

Happy

Self-respect

Warm relationship with family and others

Family eats a lot

Social interaction

Sustain local resources and local culture

Earn money

Enjoyable food

Support local communities

Tradition

Match with taste
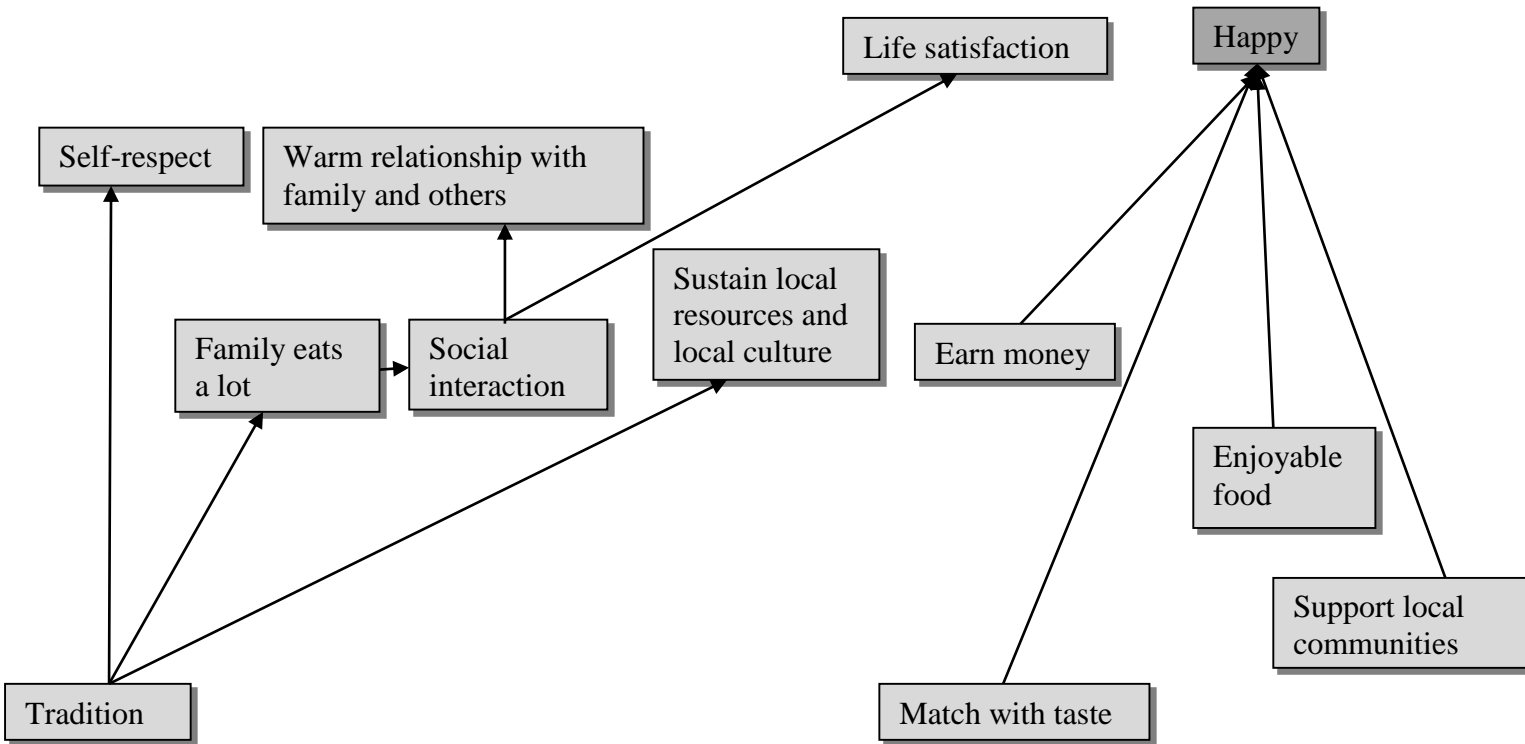
Map legend:
Centrality index: 0.10 or less   0.10 < and < 0.20   > 0.20 or more
Linkages (frequency): ⟶ < 50 connections mentioned ➡ 50 to 100 connections mentioned ➤ more than 100 connections

Figure 6.17: HVM of eating local foods when celebrating religious festivals at cut-off level of 8.

Abstractness Ratio (AR)
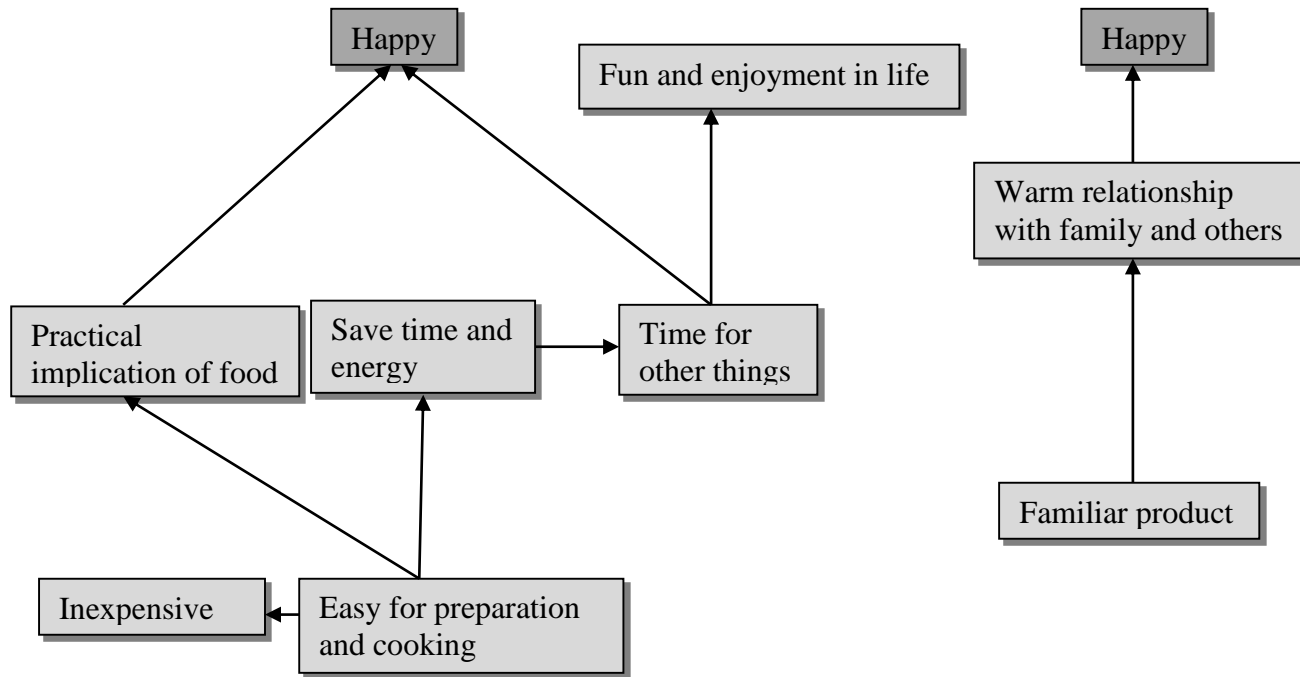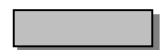
Map legend:
Centrality index: [   ] 0.10 or less   [   ] 0.10 < and < 0.20   [■] > 0.20 or more
Linkages (frequency): →< 50 connections mentioned   → 50 to 100 connections mentioned   → more than 100 connections

Figure 6.18: HVM of eating local foods when celebrating religious festivals at cut-off level of 8.

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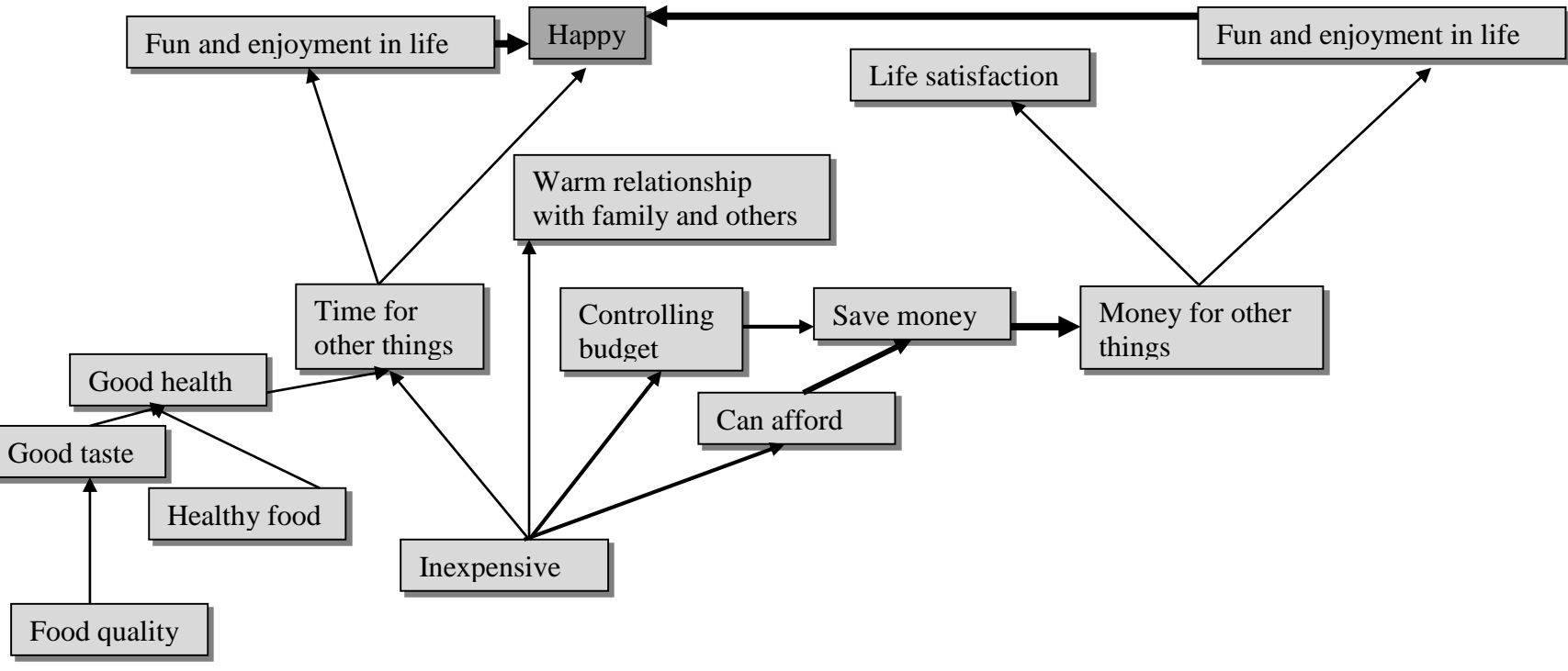
Figure 6.19: HVM of eating local foods when celebrating religious festivals at cut-off level of 8.

A motivation is identified when examining the final hierarchies based on the centrality index and the number of times the linkages are mentioned by consumers. This is 'save money'. 'Happy feeling' is the most important value that consumers want to achieve when celebrating religious festivals. This is understandable because people spend time visiting friends and family members to share the happiness at this time. They also share foods and have meals together. So this value can be inserted for marketing advertisements to promote local foods.

Save money

Pathway: Inexpensive→ Can afford→Save money→Money for other things→ Fun and enjoyment in life→Happy.

The findings reveal that a financial issue is the most important factor in purchasing foods to celebrate religious festivals. When celebrating such festivals, families may need to control their budgets for foods, travelling and living costs on holiday. It is the local custom to visit families, neighbours, and friends to maintain and strengthen the familial relationship or friendship. At this time, visitors may enjoy a wider variety and a large quantity of traditional foods that are served by host families. People may also travel to spend a long holiday available during the religious festivals. Some shops and supermarkets close on that day and food prices increase significantly. Hence, it is understandable why 'financial' is an important consideration, as families need to control their budgets. Although previous studies on motives for purchasing local foods to celebrate religious festival remain under-researchers, a few studies have examined consumers' motives for attending food festivals: 'support local farmers', 'taste the foods' (Çela et al. 2010), 'escape from routine' (Uysal et al. 1993, Park et al. 2008), 'spend time with family' (Uysal et al. 1993, Kim et al. 2010) and 'socialisation' (Uysal et al. 1993, Park et al. 2008). In general, these findings are quite different from previous empirical literature. Previous studies do not touch specifically upon religious festivals and involve consumers from developed countries which have different values of life. When they attend food festivals, consumers focus to satisfy a higher level of needs in the Maslow hierarchy theory called affiliation. On this level, individuals need to be accepted as a member of family or group. On this occasion, Indonesian consumers are still struggling to fulfil basic needs or physiological needs in terms of the Maslow hierarchy.

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Following is the transcription of a particular consumer articulating 'saving money' motivation.

Transcription twelve

(Female, aged 40-50 years old, university education level, a trader, family income 4-6 million IDR/month, the Minangese, urban area).

Interviewer (I): Now, we move to the last occasion. In this month, we are facing the *Ramadhan* month and fasting during this month. In the end of the *Ramadhan*, we will celebrate *Idul Fitri* festival. Maybe you also celebrate other religious festivals such as *Idul Adha* festival, Christmas day and others. When you celebrate the religious festivals, you may provide foods for family and friends. In this case, what fresh foods do you prefer to buy, local, national or imported foods?

Respondent (R): I prefer local foods.

I: Why are local foods important for you?

R: Because it is cheap.

I: Why are cheap prices important for you?

R: I can save my money.

I: Why is saving your money important for you?

R: So I can help others by giving charity to the poor people who need it.

I: Why is helping others important for you?

R: I feel happy. I feel close to God when I can help the poor.

6.3.5 The comparison of motivations for purchasing local foods between four consumption situations

Table 6.15 presents the similarities and differences in terms of motivations when purchasing local foods for four consumption situations.

Table 6.15: The comparison of motivation for purchasing local foods between situational consumptions.

Themes	Consumption situations			
	Daily eating	**Eating at a restaurant**	**Eating when travelling**	**Eating when celebrating religious festivals**
Health benefits	Yes	Yes	Yes	
Save money	Yes	Yes	Yes	Yes
Save time and energy in food preparation	Yes			

In general, findings show that the main motivations that influence consumers for buying local foods are 'save money' and 'health benefits'. To explain the results, Maslow hierarchy can be used as a useful means to understand the individual motivation of needs. Maslow (1970) portrayed in the shape of a pyramid the stages or hierarchies of needs that individuals tried to fulfill. This hierarchy consists of five levels: physiological need, safety, belonging, prestige and self-actualization. Each of them specifies a certain level of need. In this theory, the individual tries to fulfil the existence of unfulfilled needs in order to attain a balanced state of homeostasis. This drives a motivation within an individual to achieve a certain level. In this theory, the needs are ranked based on importance, starting from the lower-level basic needs (biogenic needs) to the higher-level basic needs (psychogenic needs). The lower-level basic needs must be satisfied before the higher-level needs emerge. The satisfaction of a level need will create a motivation for individuals to achieve a higher level of needs (Schütte and Ciarlante, 1998). In this study, the lowest-level basic need is the physiological need such as foods and water. Cheap price can be associated with the basic needs that people need to access foods at a cheaper price because of a lower family income. After the lowest-level basic need has been satisfied, consumers then move into a higher-level of need, namely security such as health, morality, property, and employment. Thus, health claims are needed to be achieved by consumers when the need of foods and water has

been satisfied. When preparing foods for daily eating, 'save time and energy in food preparation' is also considered by consumers because of the changing lifestyle and food pattern of urban-based consumers. Urban residents have a wider food choice at a cheaper price that is available in urban markets. They also consider quicker and more convenient ways to prepare foods to manage their time (Huang and Bouis 1996).When celebrating the religious festivals, every family needs to control its budget because they spend a large amount of money for travelling, visiting others, providing a large number of foods and increasing charity. In conclusion, the motivation for purchasing local foods in Indonesia are different from those who are living in developed countries that consider abstract attributes such as ecological components, life quality, living environment, enriching the local community and promoting social equity, in addition to 'save money' and 'health benefits' motives.

The Agricultural Department of Indonesia (2010) suggested food diversification based on local resources. Based on the main study, consumers were generally aware of this policy. However, the main message was not delivered well which implies a need for advertisements and education. The Indonesian government could emphasize financial issue (eg. 'cheap price', 'save money' and 'controlling budget') and health benefits to promote local foods as advantages consumers will gain when consuming local foods.

The influence of ethnicity background in urban and rural locations on local food purchasing decisions are presented and discussed in Chapter 7.

Chapter 7:

Purchasing motives for local foods for everyday eating between ethnic groups in urban and rural areas

This chapter presents an examination of consumers' motivations to buy locally produced foods between the three major ethnic groups in Indonesia: the Javanese, the Sundanese and the Minangkabau in both urban and rural areas. The Means-End Chain (MEC) approach is used to reveal the motives behind purchasing local foods for daily eating. The purchasing motives are presented using a Hierarchy Value Map (HVM) and discussed. The dominant pathways of each ethnic group are investigated and the centrality index and abstractness ratio for each group are calculated. In addition, the similarities and differences between the dominant pathways within the ethnic groups in urban and rural areas are identified and discussed in detail.

7.1 Introduction

The Javanese form the largest ethnic group in Indonesia, who constitute 41 per cent of the Indonesian population. They speak the Javanese language. Most of them live on Java Island but they are also spread across the Indonesian regions. The Sundanese is the second most populous ethnic group in Indonesia. They live in the western part of Java Island, and are concentrated in West Java province. They speak the Sundanese language and have some cultural similarity with the Javanese. The traditional occupation of the Sundanese people is 'rice farmers'. The Minangese or the Minangkabau ethnic group is indigenous to West Sumatra province and is the only matrilineal culture in Indonesia, in which properties and land pass down from the parents to the daughters. They speak the Minangese language. The Minangese families are known to be migrants who move in search of work. *Padang* food is the term used to name all the foods from the Minangkabau ethnic group. *Padang* food is famous in Indonesia since it offers a variety of foods that are rich in flavour and include chilli and coconut, like *rendang* (chunks of beef in black to brown gravy cooked with coconut milk, chilli and spices)*, asam padeh* (sour and spice beef soup), *soto padang* (beef

in spice soup)*, sate padang* (skewered barbeque meat with peanut or thick yellow sauces) and *dendeng balado* (beef with chilli sauce).

Table 7.1 presents the demographic characteristics of the respondents in this study for the three ethnic groups.

Table 7.1: The characteristics of the respondents from the three ethnic groups living in urban and rural areas.

Demographic characteristics (%)	The Javanese (n = 184)		The Sundanese (n = 171)		The Minangese (n = 178)	
	Yogyakarta (urban area) (n = 95)	Purbalingga regency (rural area) (n=89)	Bandung (urban area) (n = 83)	Tasikmalaya regency (rural area) (n= 88)	Padang (urban area) (n = 91)	Tanah Datar regency (rural area) (n = 87)
Gender						
Female	93.7	97.8	91.8	97.7	90.1	83.9
Male	6.3	2.2	8.2	2.3	9.9	16.1
Family income (million IDR/month)						
2≤	50.5	70.8	50.6	72.7	36.3	60.9
2< and ≤4	31.6	23.6	23.5	21.6	47.2	27.6
4< and ≤6	4.2	5.6	10.6	5.7	11	4.6
6< and ≤8	4.2		4.7		0	2.3
8< and ≤10	1.1		0		3.3	4.6
10< and ≤12	1		2.4		1.1	
12< and ≤14	0		1.1		0	
14< and ≤16	5.3		1.2		0	
16< and ≤18	0		5.9		1.1	
18< and ≤20	1.0		0		0	
20>	1.1		0		0	
Education level attained						
Primary school	13.7	39.2	17.6	28.4	13.2	31.0
Junior High School	19	29.2	15.3	34.1	12.1	16.1
Senior High School	46.2	24.8	41.2	25.0	38.4	34.5
University	17.9	6.7	24.7	12.5	36.3	18.4
Postgraduate	3.2	0	1.2	0	0	0
Household types						
Single person	4.2	7.9	32.9	1.1	8.8	8
Married-couple family	64.2	73.0	65.9	29.6	60.4	51.7
Other family	29.5	19.1	1.2	65.9	23.1	39.1
Other non-family	2.1	0	0	3.4	7.7	1.1
Age (years old)						
30≤	0	12.4	14.1	14.8	15.4	4.6
40< and ≤50	34.7	30.4	40.0	34.1	25.3	37.0
50< and ≤60	30.6	31.5	29.4	30.6	31.8	33.3
60< and ≤70	20.0	15.7	11.8	17.1	22.0	15.0
70< and ≤80	13.6	7.8	4.7	3.4	2.2	6.8
80< and ≤90	1.1	2.2	0	0	2.2	3.3
90>	0	0	0	0	1.1	0
Marital status						
Married	88.4	89.9	94.1	94.3	70.3	84.1
Separated	1.1	1.1	0	3.4	1.1	1.2
Widowed	5.2	6.8	1.2	2.3	16.5	16.2
Single	3.2	0	2.3	0	12.1	1.2
Divorced	2.1	2.2	2.4	0	0	0
Money for food for family a week (000 IDR)						
50 ≤	86.3	97.8	88.2	96.6	68.1	94.3
100< and ≤150	11.6	2.2	8.3	3.4	22.0	5.7
150< and ≤200	1.1	0	0	0	2.2	0
200< and ≤250	0	0	0	0	2.2	0
250< and ≤300	0	0	1.1	0	3.3	0
300< and ≤350	0	0	0	0	2.2	0
350>	1	0	2.4	0	0	0

This study reports that 92.5 per cent of women are responsible for food preparation. It is found that women have the key role and make a critical contribution to household food-making decisions. Most food costs for each family per week are less than 50,000 IDR. Most food deciders are from a married-couple family and adults between 30 to 50 years of age. However, there are many young people and men involved in making food decisions for the Minangese ethnic group. In general, urban residents are more likely to have a higher education level and higher family income when compared to rural residents.

7.2 The local foods of the Javanese ethnic group

This section is based on a paper that was presented at the 57th Annual Conference of Australian Agricultural & Resource Economics Society (AARES), 5-8 February 2013 at Darling Harbour, Sydney with the title "Exploring consumer motivations towards buying local fresh produce: A means end chain approach". This paper has been accepted for publication at the *British Food Journal*. The paper is attached in Appendix 1.

7.3 The local foods of the Sundanese ethnic group

Bandung is the capital city of the West Java province and is the second largest metropolitan city in Indonesia. It is located approximately 140 km south eastern of Jakarta, and most of the population is of Sundanese descent. The Tasikmalaya regency from which the data are obtained is located in the western region of East Java province, about 75 km from Bandung. Approximately 74 per cent of Tasikmalaya regency is an agricultural area and the main occupation is farming. Sundanese food is characterized by freshness like *lalaban* (raw vegetables) and *karedok* (raw vegetables with peanut sauce). Unlike Minangese food, that is filled with spices, chillies and coconut milk, Sundanese food involves simple tastes. *Sayur asam* (vegetable tamarind soup), grilled or dried fresh water fish and chicken are commonly consumed with *sambal* (mortar grinded chillies) or sweet soy sauce. Various *pepes* of chicken, *tofu* and fish (a cooking method that employs banana leaf as a wrapper) are also served as the meals.

7.3.1 Motivations for purchasing local foods by Sundanese people in urban area

The information collected is examined using the Means-End Chain (MEC) approach and Table 7.2 lists the attributes, consequences and values as well as the Centrality Index (CI) and Abstractness Ratio (AR) for the local foods involved.

Table 7.2: List of Abstractness Ratio (AR) and Centrality Index (CI) for urban Sundanese people.

Attributes			Consequences			Values		
Content Codes	AR	CI	Content Codes	AR	CI	Content Codes	AR	CI
Easy for preparation and cooking	0.05	0.05	Social interaction	0.37	0.01	Life satisfaction	0.73	0.02
Inexpensive	0.05	0.07	Controlling budget	0.38	0.04	Sense of accomplishment	0.78	0.08
Food quality	0.09	0.05	Practical implication of foods	0.4	0	Self-respect	0.79	0.02
Trust the foods	0.13	0.02	Save time and energy	0.4	0.02	Thank God	0.83	0.02
Options	0.16	0.01	Save money	0.42	0.1	Warm relationship with family and others	0.85	0.01
Support for local communities	0.16	0.01	Environment quality	0.5	0	Fun and enjoyment of life	0.91	0.05
Healthy food	0.17	0.01	Good health	0.54	0.09	Health is the most valuable thing in life	1	0
Can afford	0.17	0.04	Money for other things	0.59	0.09	Happy	1	0.09
Enjoyable food	0.23	0.01	Earn money	0.63	0.01			
Good Taste	0.24	0.02	Time for other things	0.63	0.05			
			Family eat a lot	0.75	0			
			Self-esteem	0.75	0			

There are 10 attributes, 12 consequences and 8 values of local foods for urban Sundanese residents. 'Inexpensive' (CI = 0.07) has the highest centrality index among attributes. However, urban residents also consider 'food quality' (CI = 0.05) and 'easy for preparation and cooking' (CI = 0.05) for making daily food decisions. 'Good health', 'money for other things' and 'time for other things' are three dominant consequences of local foods with centrality indexes 0.09, 0.09 and 0.05 respectively. Furthermore, 'happiness' and 'sense of accomplishment' are values that consumers want to achieve when purchasing local foods. To construct a Hierarchical Value Map (HVM) of local foods for urban Sundanese residents, the statistics used to identify a cut-off level are provided in Table 7.3. A cut-off level of 6 is selected that accounts for 61.3 per cent of active linkages at or above the cut-off level and consists of 17 content codes. Figure 7.1 presents the HVM of local foods for urban Sundanese consumers.

Table 7.3: Statistics for choosing a cut-off level for the urban Sundanese respondents.

Cut-off level (1)	Active cells in the SIM (2)	Links in the SIM (3)	Content codes at a particular cut-off level (4)	Active cells at or above cut off level (%) (5)	Linkages at or above cut-off level (%) (6)
1	555	1080	35	100	100
2	544	944	26	52.4	87.4
3	534	840	23	34.3	77.8
4	526	768	21	25.9	71.1
5	519	712	20	21	65.9
6	501	662	17	17.5	61.3
7	492	620	16	15	57.4

Figure 7.1: Hierarchy Value Map (HVM) of everyday eating of local foods for urban Sundanese people at a cut-off level of 6.

Based on Figure 7.1, there are two main identified motivations with regard to financial issues and health benefits that are based on the centrality index and how many times a linkage is mentioned by respondents.

Controlling budget

Pathway: Inexpensive→ Can afford→ Controlling budget→ Money for other things→ Time for other things→ Sense of accomplishment→ Happy.

Health benefits

Pathway: Food quality→ Good taste→ Good health→ Save money.

These results provide confirmation of what is found in the literature review, that price becomes the important consideration when making purchasing decisions, particularly for a family with lower income. Furthermore, based on the Maslow hierarchy, when the basic human need for food has been satisfied, consumers would move to a higher level of need in order to achieve the second level, namely the safety that includes health benefits. However, the motivations for purchasing local foods are similar between the Javanese and Sundanese. It is argued that because both ethnic groups have some similarities in terms of family structures and economic patterns which reflect this similarity will be found. The following transcriptions obtained from particular respondents describe the identified motivation towards local foods for urban Sundanese respondents.

Transcription 1

(Female, age 50 to 60 years old, university education level, has own business, family income 10-12 million IDR)

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: It is cheap.

I: Why is cheap important for you?

R: So I can control my budget.

I: Why is controlling your budget important for you?

R: So I can fulfil my needs.

I: Why is fulfilling your needs important for you?

R: So I can thank God.

Transcription 2

(Female, age 30 to 40 years old, Senior High School education level, employee, family income 2-4 million IDR)

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: Good quality of food.

I: Why is good quality of food important for you?

R: Good for health.

I: Why is good for health important for you?

R: So I can work.

I: Why is working important for you?

R: I can fulfil my needs.

I: Why is fulfilling your needs important for you?

R: I can thank to God

I: Why is thank to God important for you?

R: My life feels convenient.

Transcription 3

(Female, age 40 to 50 years old, Senior High School education level, housewife, family income less than 2 million IDR)

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: Good of quality.

I: Why is good of quality important for you?

R: Good for health.

I: Why is good for health important for you?

R: So I can do a lot of activities.

I: Why is doing your activities important for you?

R: Happy.

7.3.2 Motivations for purchasing local foods by Sundanese people in rural area

Following the Means-End Chain (MEC) procedures, the abstractness ratio and centrality index are calculated and presented in Table 7.4. Similar to consumers in the urban area, rural consumers also consider 'save money', 'easy for preparation and cooking' and 'food quality' as the most important attributes for purchasing local foods with centrality indexes of 0.09, 0.09, and 0.06 respectively. The highest centrality index for the consequences is 'money for other things' (0.10), indicating the central role of the consequences when purchasing or making a decision. Then, other consequences associated with financial issues such as 'saving money' (0.08), 'time for other things' (0.08) and 'can afford' (0.05), are likely to be stronger in the rural area when compared to the urban area. 'Happiness' and 'enjoyment of life' are also two values that consumers seek to achieve when purchasing local foods.
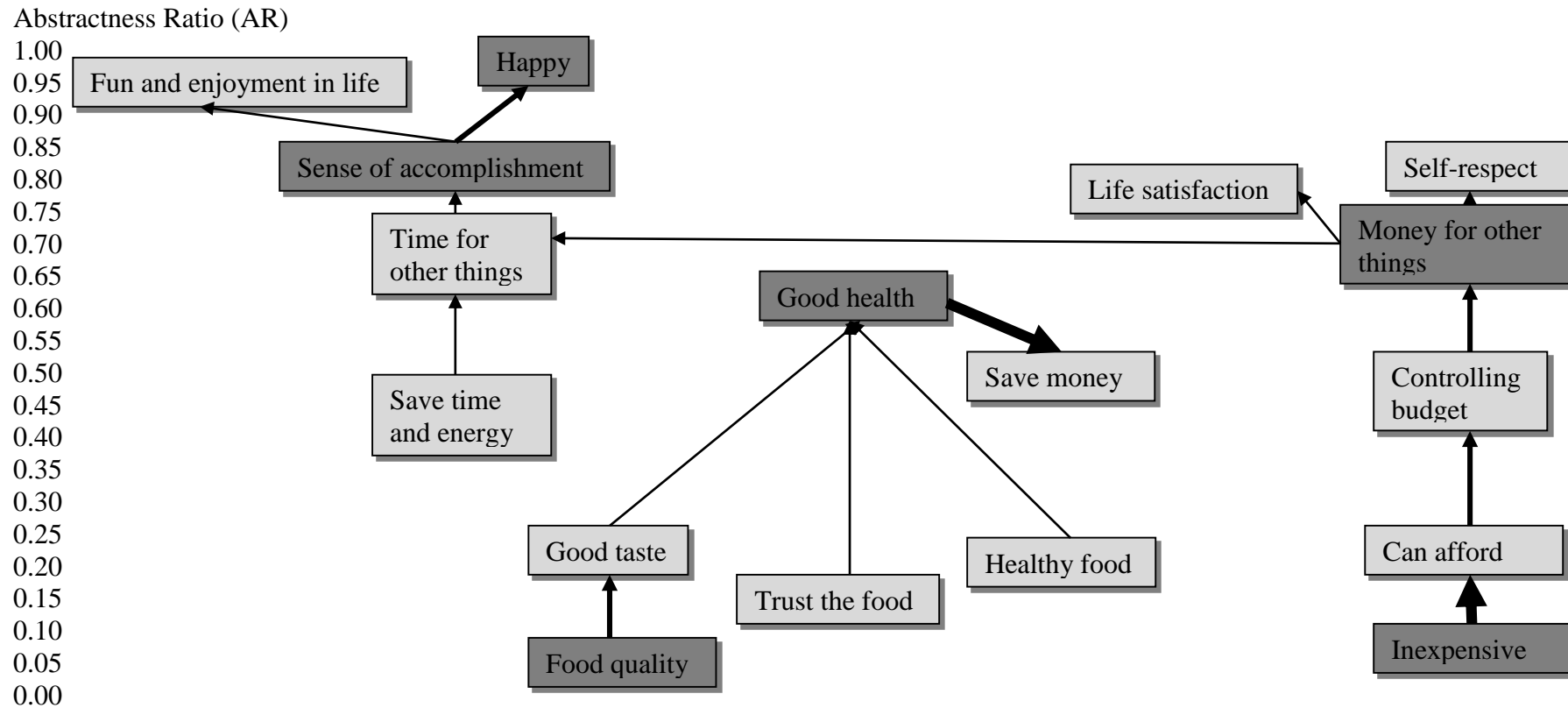
Table 7.4: List of Abstractness Ratio (AR) and Centrality Index (CI) for rural Sundanese people.

Attributes			Consequences			Values		
Content Codes	AR	CI	Content Codes	AR	CI	Content Codes	AR	CI
Food quality	0	0.06	Practical implication of food	0.17	0.01	Warm relationship with family or others	0.79	0.01
Options	0	0.01	Can afford	0.28	0.05	Sense of accomplishment	0.81	0.02
Inexpensive	0.02	0.09	Save time and energy	0.39	0.02	Fun and enjoyment of life	0.94	0.05
Easy for preparation and cooking	0.09	0.09	Save money	0.43	0.08	Life satisfaction	0.95	0.01
			Good health	0.44	0.1	Self-respect	1	0
			Controlling budget	0.45	0.02	Happy	1	0.15
			Good taste	0.5	0	Thank God	1	0.01
			Support for local communities	0.5	0			
			Family eats a lot	0.5	0			
			Earn money	0.59	0.01			
			Social interaction	0.6	0			
			Time for other things	0.62	0.08			
			Money for other things	0.66	0.10			

Table 7.5 presents the calculations for identifying a cut-off level. The cut-off levels of 5 to 9 are tried in order to obtain an HVM that was easy to interpret and had minimum crossing lines. The cut-off level of 7 is chosen that accounts for 66.4 per cent of the linkages from 11 content codes and is presented 16.1 per cent of active cells. The HVM of local foods for Sundanese consumers in rural areas is presented in Figure 7.2.

Table 7.5: Statistics for choosing a cut-off level for the rural Sundanese ethnic group.

Cut-off level (1)	Active cells in the SIM (2)	Links in the SIM (3)	Active content codes at a particular cut-off level (4)	Active cells at or above cut off level (%) (5)	Active linkages at or above cut-off level (%) (6)
1	513	804	32	100	100
2	502	723	24	51.8	89.9
3	488	671	19	36.3	83.5
4	471	617	15	25.6	76.7
5	467	601	14	23.2	74.8
6	458	576	13	20.2	71.6
7	443	534	11	16.1	66.4
8	443	506	11	13.7	62.9
9	443	490	11	12.5	60.9

Abstractness Ratio (AR)

1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00

Happy

Fun and enjoyment in life

Happy

Time for other things

Money for other things

Save time and energy

Good health

Save money

Controlling budget

Can afford

Food quality

Inexpensive

Map legend:

Centrality index (CI): [ ] 0.05 or less [ ] 0.05 < and < 0.10 [ ] > 0.10 or more

Linkages (frequency) → < 20 connections mentioned → 20 to 40 connections mentioned → more than 40 connections

Figure 7.2: HVM of everyday eating of local foods for rural Sundanese people at a cut-off level of 7.

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When compared to urban-based consumers, there are similar identified motivations for purchasing local foods, namely 'health benefits'. The only difference between urban and rural consumers is that an 'inexpensive-good health' linkage is recorded in HVM for rural consumers. This may be associated with the economic patterns of living in a rural area. Approximately 73 per cent of rural consumers have family incomes less than 2 million IDR per month. Rural consumers may consider that the cheaper price of local foods may have a positive contribution to health. Two identified motivations that are based on the centrality indexes and the frequency of linkages mentioned by respondents are followed.

Save money

Pathways:

Inexpensive → Can afford →Save money →Money for other things → Happy.
Inexpensive → Can afford →Save money →Money for other things → Fun and enjoyment of life.

Health benefits

Pathways:

Food quality → Good health → Time for other things → Happy
Inexpensive→ Good health → Time for other things → Happy

Following is the transcription with regard to themes with a particular respondent.

Transcription 4

(Female, age 40 to 50 years old, university education level, private employer, family income less than 2 million IDR)

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: Because it is cheap.

I: Why is cheap price important for you?

R: So I can control my budget.

I: Why is controlling your budget important for you?

R: So I can pay bills.

I: Why is paying bills important for you?

R: Thank to God

Transcription 5

(Female, age 40 to 50 years old, Senior High School education level, housewife, family income less than 2 million IDR)

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: Good of quality.

I: Why is good of quality important for you?

R: So I can work.

I: Why is working important for you?

R: So I can earn some money to fulfil my needs like foods, bills and children school fee.

I: Why is fulfilling your needs important for you?

R: So I can thank God.

7.3.3 The comparison of the motivations for purchasing local foods between Sundanese consumers in rural and urban areas

In order to obtain a better comparison of the motivations for buying local foods for the Sundanese in urban and rural locations, Table 7.6 summarises the highlighted motivations as well as their centrality indexes. Although the motivation to buy local food is almost similar in rural and urban locations, the 'health benefits' issue (eg good health) is stronger in the urban area than in the rural area. However, financial issues (eg inexpensive, save money and can afford) are more important considerations for rural consumers.

Table 7.6: Similarities and differences between centrality indexes and identified motivations of Sundanese consumers in rural and urban areas.

Locations	In terms of the centrality indexes	Identified motivations		
		Controlling budget	Save money	Health benefits
Urban areas	Happy (0.09) Good health (0.09) Money for other things (0.09) Sense of accomplishment (0.08) Inexpensive (0.07) Easy for preparation and cooking (0.05) Food quality (0.05) Time for other things (0.05)	Yes		Yes
Rural areas	Happy (0.15) Money for other things (0.10) Inexpensive (0.09) Easy for preparation and cooking (0.09) Save money (0.08) Time for other things (0.08) Food quality (0.06) Can afford (0.05) Fun and enjoyment in life (0.05)		Yes	Yes

7.4 The local foods of the Minangese ethnic group

Padang city is the largest city in the west coastal region of Sumatra Island and also the capital city of West Sumatra province. The people of Padang city mostly belong to the Minangkabau ethnic group (90%). Tanah Datar regency is also located in West Sumatra province. This regency is an agricultural area with more than 70 per cent of its population working in the agricultural sector. The Minangkabau people often migrate and spread across Indonesia and even to foreign countries. They have a wide variety of professional occupations and are known to be a well-educated group of people. *Padang* food is popular among Indonesian

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people and is serves in restaurants in many part of Indonesia and even overseas. The basic ingredients of food for the Minangese are rice, fish, beef and chicken meat (Lipoeto et al. 2001). The food is characterised by spiciness using mainly herbs like ginger, galangal, turmeric and chillies and is also a crucial component of both traditional ceremonies and daily living.

7.4.1 Motivations for purchasing local foods by Minangese people in urban areas

The Means-End Chain (MEC) approach is used in order to reveal the motivations behind purchasing local foods. The Abstractness Ratio (AR) and Centrality Index (CI) are also calculated for urban Minangese consumers. The attributes, consequences and values for purchasing local foods are presented in Table 7.7.

Table 7.7: List of Abstractness Ratio (AR) and Centrality Index (CI) for urban Minangese people.

Attributes			Consequences			Values		
Content Codes	AR	CI	Content Codes	AR	CI	Content Codes	AR	CI
Food quality	0	0.05	Can afford	0.28	0.02	Warm relationship with family or others	0.8	0.01
Match with taste	0	0.01	Practical implication of food	0.43	0.01	Sense of accomplishment	0.84	0.02
Support for local communities	0	0.01	Good health	0.44	0.09	Health is the most valuable thing in life	0.85	0.01
Tradition	0	0.01	Save time and energy	0.45	0.02	Fun and enjoyment of life	0.94	0.01
Trust the foods	0	0.01	Prosperous family/area/nation	0.5	0.01	Life satisfaction	0.97	0.02
Easy for preparation and cooking	0.02	0.08	Save money	0.54	0.08	Self-respect	1	0.02
Inexpensive	0.04	0.08	Family eats a lot	0.55	0.03	Happy	1	0.16
Enjoyable food	0.11	0.03	Controlling budget	0.6	0.03	Thank God	1	0.01
Familiar products	0.19	0.02	Time for other things	0.63	0.06			
Good taste	0.24	0.01	Earn money	0.64	0.01			
			Money for other things	0.65	0.05			
			Local economy growth	0.67	0			
			Self-esteem	0.75	0			
			Social interaction	0.75	0.01			
			Self-confidence	0.8	0			

There are 10 attributes with the abstractness ratios ranging from 0 to 2.24. The attributes with zero value indicate that very few respondents mention these variables as the end of the linkage. The attributes of 'inexpensive', 'easy for preparation and cooking' and 'food quality' have the higher role in terms of their centrality indexes with the values of 0.08, 0.08 and 0.05, respectively.

'Good health' is the most important consequence followed by 'save money', 'time for other things' and 'money for other things' between the 14 consequences mentioned. 'Local economy growth', 'self-esteem' and 'self-confidence' have zero values for their centrality indexes but higher abstractness ratios ranging from 0.67 to 0.8. This means that the variables are mentioned by few respondents as consequences. A very small number of respondents mentioned the variables results in zero values of the centrality index. Variables with a high abstractness ratio are predominantly variable as the end of a certain linkage although the variable is mentioned by a small number of respondents. Happiness is the value that respondents want to achieve when making local foods purchasing decisions.

The cut-off levels of 3 to 5 are tried to obtain the Hierarchy Value Map (HVM) that is easy to interpret and the cut-off level of four is selected. The statistics for choosing the cut-off level for Urban Minangese consumers is presented in Table 7.8. At this level, 18.6 per cent active cells (379 cells) are obtained from 20 active content codes and account for 60.7 per cent of the active links. The HVM of local foods for urban Minangese people is presented in Figure 7.3 and 7.4.

Table 7.8: Statistics for choosing a cut-off level for the urban Minangese ethnic group.

Cut-off level (1)	Active cells in the SIM (2)	Links in the SIM (3)	Content codes at a particular cut-off level (4)	Active cells at or above cut off level (%) (5)	Linkages at or above cut-off level (%) (6)
1	419	595	38	100	100
2	406	489	28	46.7	82.2
3	400	409	25	26.6	68.7
4	379	361	20	18.6	60.7
5	355	321	16	13.6	53.9

Abstractness Ratio (AR)

1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00

Happy

Life satisfaction

Family eats a lot

Practical
implication of foods

Enjoyable food

Good taste

Match with taste
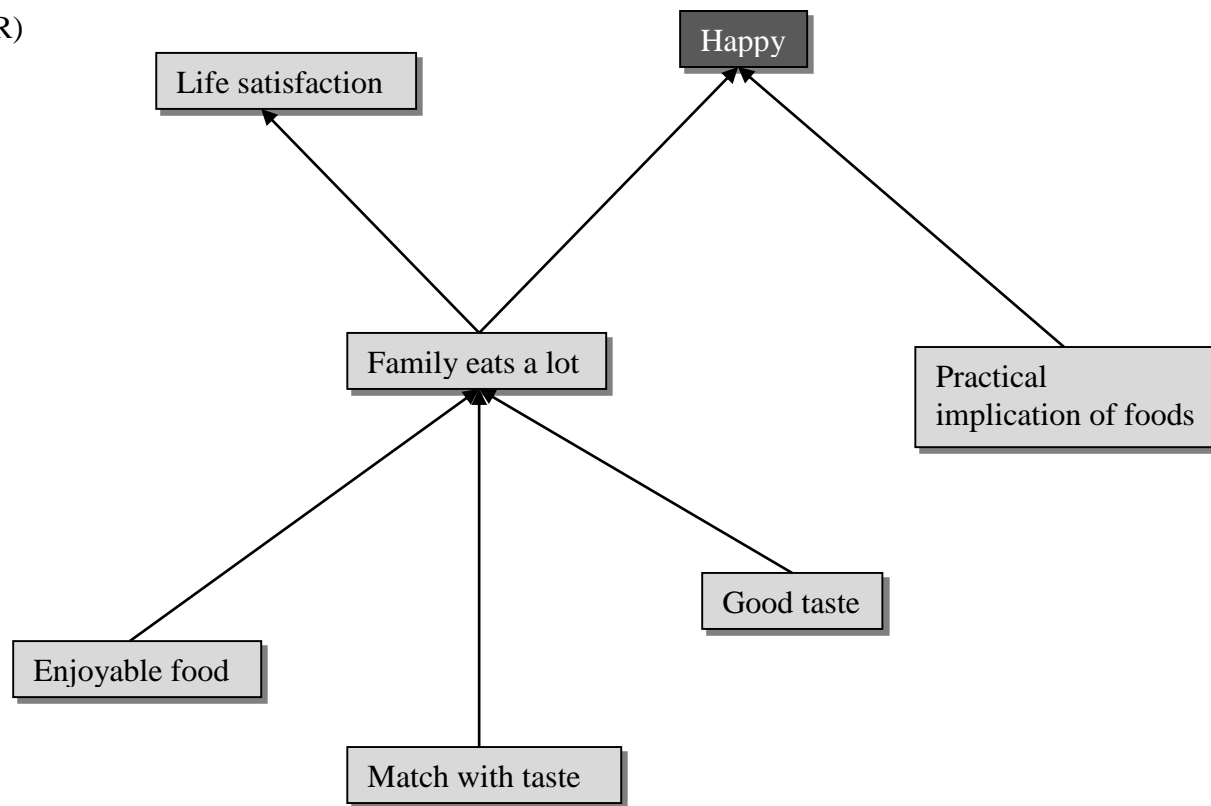
Map legend:
Centrality index (CI):   0.05 or less   0.05 < and < 0.10   > 0.10 or more
Linkages (frequency) ——▶ < 20 connections mentioned ➤ 20 to 40 connections mentioned ➤ more than 40 connections

Figure 7.3: HVM of everyday eating of local foods for urban Minangese people at a cut-off level of 4.

Abstractness Ratio (AR)

Fun and enjoyment in life

Health is the most important thing in life

Sense of accomplishment

Happy

Time for other things

Money for other things

Controlling budget

Good health

Save money

Save time and energy

Can afford

Familiar products

Food quality

Inexpensive
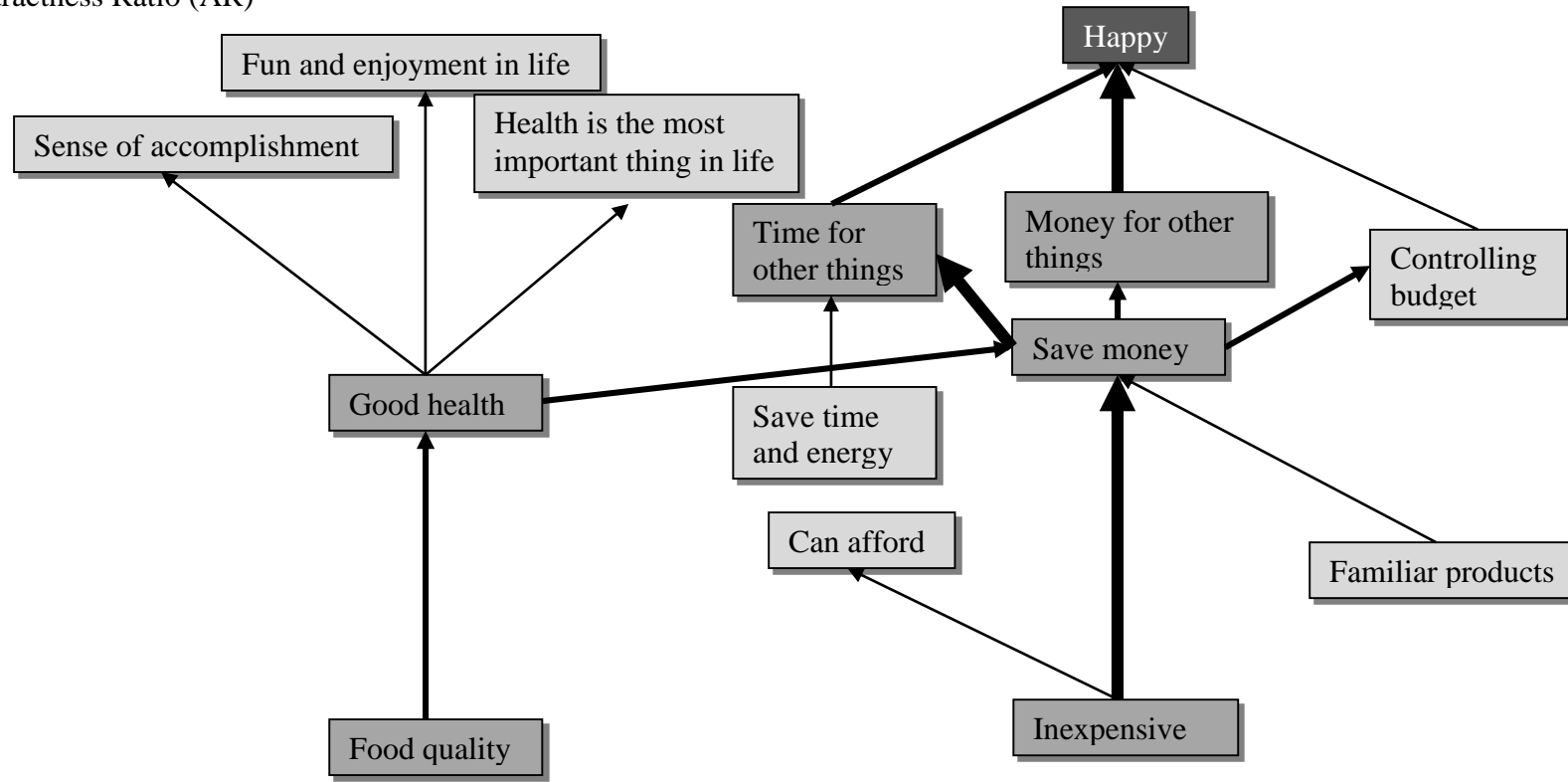
Map legend:
Centrality index (CI):   0.05 or less   0.05 < and < 0.10   > 0.10 or more
Linkages (frequency) ⟶ < 20 connections mentioned ➤ 20 to 40 connections mentioned ➤ more than 40 connections

Figure 7.4: HVM of everyday eating of local foods for urban Minangese people at a cut-off level of 4.

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Food has a crucial role in traditional ceremonies as well as daily living for the Minangese. Therefore, the taste of food plays an important rule during preparation, serving and consuming. Unlike the other two ethnic groups, the urban Minangese people consider the food taste when purchasing local fresh produce for preparing food for everyday eating. Figure 7.3 is a HVM that shows food taste ('match with taste', 'enjoyable foods' and 'good taste') and has a consequence to 'family eats a lot' and leads to happiness. However, this hierarchy is not strong enough to be a main pathway that is based on centrality indexes and the frequency of linkages mentioned by respondents. To conclude, there are only two motivations for urban Minangese consumers that are identified with regard to 'saving money' and 'health benefits'. The particular transcriptions are also provided with respect to a particular motivation.

Saving money

Pathways:
Inexpensive →Save money →Money for other things →Happy.
Inexpensive →Save money →Time for other things →Happy.

Health benefits

Pathway:
Food quality →Good health →Save money →Time for other things →Happy

Transcription 6

(Female, age 40-50 years old, university education level, vendor, family income 2 to 4 million IDR,).

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: It is cheap.

I: Why is cheap important for you?

R: It is the foods that I can afford.

I: Why is affordable food important for you?

R: So I can save my money.

I: Why is saving your money important for you?

R: So we share money for other needs.

I: Why is money for other things important for you?

R: So the quality of life is increasing.

I: Why is increasing the quality of life important for you?

R: Quiet household.

I: Why is a quiet household important for you?

R: I am happy and calm.

Transcription 7

(Female, age 50-60 years old, Primary School education level, housewife, family income 4 to 6 million IDR).

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: It is cheap.

I: Why is cheap important for you?

R: I must buy foods that fit with my budget.

I: Why is fitting with your budget important for you?

R: So, I am not worry with my debt.

I: Why is not worry with your debt important for you?

R: Quiet life.

Transcription 8

(Female, age 50-60 years old, University education level, housewife, family income 4 to 6 million IDR).

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: I trust the food.

I: Why is trust the food important for you?

R: Good health.

I: Why is good health important for you?

R: So I can do my activities.

I: Why is doing your activities important for you?

R: Earning some money.

I: Why is earning some money important for you?

R: To meet our needs.

I: Why is meeting your needs important for you?

R: I am happy if I can fulfil all my needs.

7.4.2 Motivations for purchasing local foods by Minangese people in rural areas

The Abstractness Ratio (AR) and Centrality Index (CI) have been calculated and presented in Table 7.9 and Table 7.10 presents the statistics for a cut-off level selection.

Table 7.9: List of Abstractness Ratio (AR) and Centrality Index (CI) for rural Minangese people.

Attributes			Consequences			Values		
Content Codes	AR	CI	Content Codes	AR	CI	Content Codes	AR	CI
Easy for preparation and cooking	0	0.08	Practical implication of foods	0.36	0.02	Sense of accomplishment	0.95	0.03
Familiar products	0	0.01	Can afford	0.43	0.01	Self-respect	1	0
Match with taste	0	0.02	Controlling budget	0.44	0.03	Warm relationship with family or others	1	0
Trust the foods	0	0.01	Save money	0.46	0.08	Health is the most valuable thing in life	1	0.01
Inexpensive	0	0.08	Family eats a lot	0.47	0.03	Life satisfaction	1	0.01
Food quality	0.02	0.07	Save time and energy	0.48	0.03	Happy	1	0.12
			Good health	0.56	0.13			
			Local economy growth	0.67	0			
			Time for other things	0.71	0.06			
			Earn money	0.75	0.05			
			Self-esteem	0.75	0			
			Money for other things	0.78	0.09			
			Prosperous family/area/nation	0.86	0.01			

Table 7.10: Statistics for choosing a cut-off level for the rural Minangese ethnic group.

Cut-off level (1)	Active cells in the SIM (2)	Links in the SIM (3)	Content codes at a particular cut-off level (4)	Active cells at or above cut off level (%) (5)	Linkages at or above cut-off level (%) (6)
1	513	804	32	16.4	100
2	502	723	24	8.5	89.9
3	488	671	19	6	83.5
4	471	617	15	4.2	76.7
5	467	601	14	3.8	74.8
6	458	576	13	3.3	71.6
7	443	534	11	2.6	66.4
8	443	506	11	2.2	62.9
9	443	490	11	2.1	60.9
10	433	472	10	1.9	58.7

Fewer attributes are identified by rural-based Minangese consumers when compared to urban Minangese consumers. In addition, of the six attributes, five have zero abstractness ratios that represent these attributes serving as the source (means). However, a value of zero does not indicate that a lower abstractness ratio represents a tangible attribute rather than an intangible attribute. All attributes except the 'inexpensive' seem to be intangible. With respect to centrality indexes, 'inexpensive' and 'easy for preparation and cooking' are the attributes that have the central role, followed by 'food quality'. 'Good health' (CI = 0.13),' money for other things' (CI = 0.09), 'save money' (CI = 0.08), 'time for other things' (CI = 0.06) and 'earn money' (CI = 0.05) are the key consequences related to these attributes. Happy feeling is clearly the value that the consumers want to achieve when purchasing local foods.

A cut-off level of 7 is selected that accounts for 2.6 per cent active cells (443 active cells) and the Hierarchy Value Map (HVM) is presented in Figure 7.5.

Abstractness Ratio (AR)

1.00	
0.95	
0.90	
0.85	
0.80	
0.75	
0.70	
0.65	
0.60	
0.55	
0.50	
0.45	
0.40	
0.35	
0.30	
0.25	
0.20	
0.15	
0.10	
0.05	
0.00	

Happy

Fun and enjoyment

Money for other things

Time for other things

Good health

Save time and energy

Can afford

Save money

Controlling budget

Inexpensive

Food quality
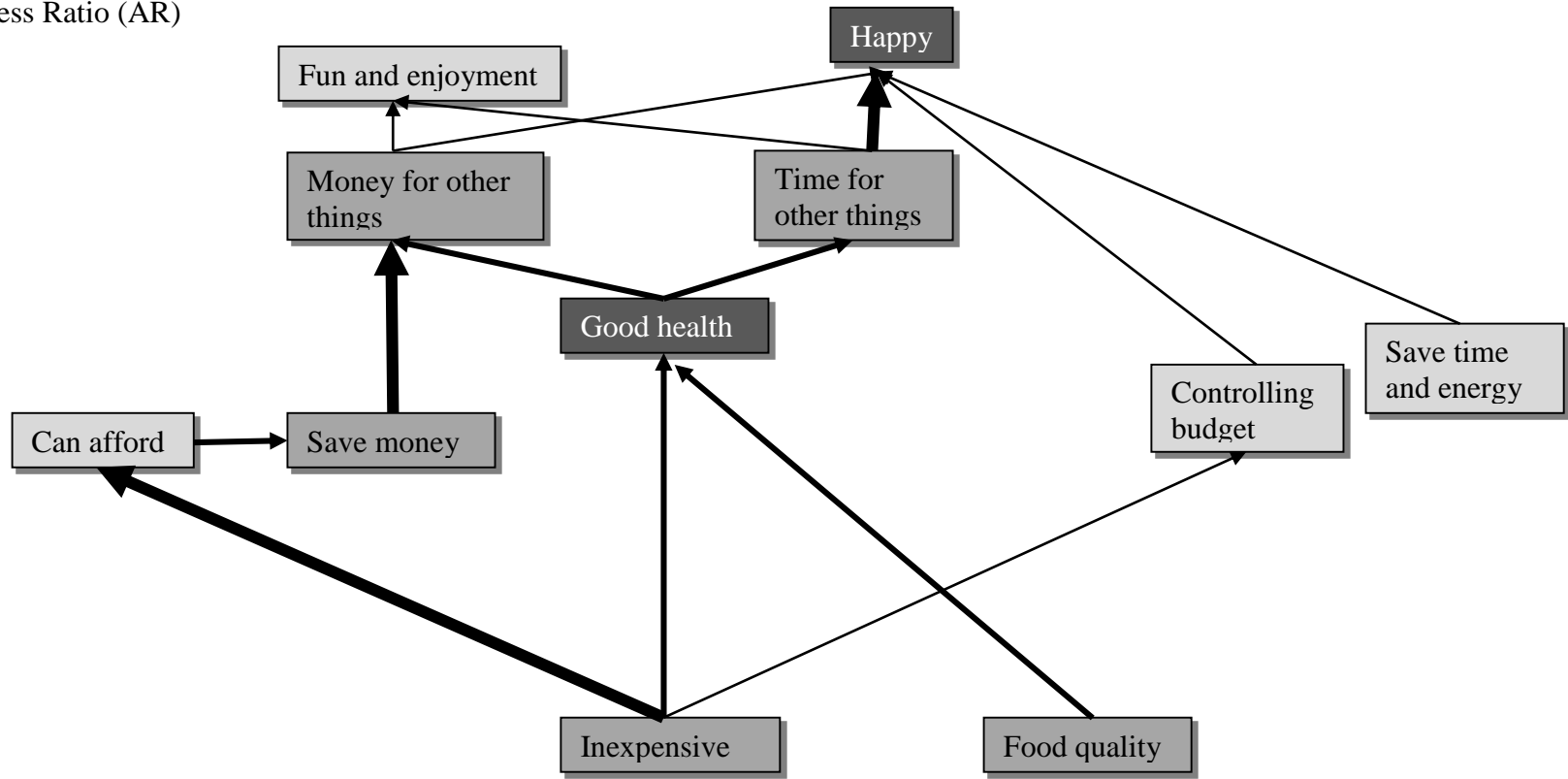
Map legend:

Centrality index (CI):   0.05 or less   0.05 < and < 0.10   > 0.10 or more

Linkages (frequency) → < 20 connections mentioned → 20 to 40 connections mentioned → more than 40 connections

Figure 7.5: HVM of everyday eating of local foods for rural Minangese people at a cut-off level of 7.

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Rural consumers when purchasing local foods differ from urban consumers for whom taste is not an important variable. Like the other two ethnic groups, 'save money' and 'health benefits' are the two main motivations identified for local foods that are included in the transcriptions obtained from the consumers with regards to motivation.

Save money

Main pathway: Inexpensive→ Can afford→ Save money→ Money for other things→ Time for other things→ Happy.

Health benefits

Main pathways: Food quality→ Good health→ Time for other things→ Happy.
　　　　　　　Food quality→ Good health→ Money for other things→ Happy.

Transcription 9

(Female, age between 40-50 years old, senior high school education level, housewife, family income between 2-4 million IDR)

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: Local foods are available in our village.

I: Why is availability important for you?

R: So it is cheap and we can afford and the whole family can eat.

I: Why is feeding your family important for you?

R: So I am happy.

I: Why is not worry with your debt important for you?

R: Quiet life.

Transcription 10

(Female, age between 50-60 years old, Primary School education level, farmer, family income less than 2 million IDR)

Interviewer (I): When preparing everyday eating such as breakfast, lunch and dinner for a family during a week, what food do you prefer to buy: local, national or imported foods?

Respondent (R): Local foods.

I: Why are local foods important for you?

R: I like because local foods are fresh.

I: Why is freshness important for you?

R: So our body is healthy.

I: Why is good health important for you?

R: So I can go to the field, plant the rice, harvest and selling the products.

I: Why is earning money important for you?

R: So I can send my daughter to the university to get a better future of life.

I: Why is better future for your daughter important for you?

R: I am happy and thank to God.

7.4.3 Comparison of motivations for purchasing local foods between Minangese consumers in rural and urban areas

Table 7.11 presents the similarities and differences in motivations between urban and rural residents for the Minangese. It is not surprising that 'save money' and 'health benefits' are identified as the main motivations both in urban and rural areas, as similar way to the previous ethnic groups. However, 'good health' and 'spend money for other things' are variables that are considered more important by rural consumers. For urban consumers, 'save money' and 'time for other things' are two important considerations when purchasing local foods. This may be because a cheaper price of local foods has a positive association to consequence like 'save money' and 'spend money for other things'. In addition, easier preparation and cooking of local foods result in faster preparation and serving of foods, so consumers have 'time for other things'.

Table 7.11: Similarities and differences between centrality indexes and identified motivations of Minangese consumers in rural and urban areas.

Locations	In terms of centrality index	Identified motivations	
		Save money	Health benefits
Urban areas	Happy (0.16) Good health (0.09) Inexpensive (0.08) Easy for preparation and cooking (0.08) Save money (0.08) Time for other things (0.06) Money for other things (0.05) Food quality (0.05)	Yes	Yes
Rural areas	Good health (0.13) Happy (0.12) Money for other things (0.09) Inexpensive (0.08) Easy for preparation and cooking (0.08) Save money (0.08) Food quality (0.07) Time for other things (0.06) Earn money (0.05)	Yes	Yes

7.5 Comparison of motivations for purchasing local foods between three ethnic groups in rural and urban areas

Table 7.12 shows that 'save money' and 'health benefits' are generally identified by three ethnic groups as two important motivations to buy local foods both in rural and urban areas. As the motivations to buy local foods are largely between the three ethnic groups both in rural and urban locations, it is possible that a higher share of urban demand for dietary staple foods (and other food items) may be better satisfied from local production by adapting domestic agricultural products to the needs and wants of urban consumers. This can create a harmonious urban-rural linkage and also create a food-based community as well as encourage and develop a better farming system. Such a food production system can also strengthen the social and cultural interactions between rural and urban people.

Happiness is the value that can be advanced when promoting local foods for the three ethnic groups in both rural and urban locations. In terms of differences between ethnic groups, the motivation for good health is stronger for the Minangese consumers compared to the other two groups. Urban residents also place greater emphasis on health benefits than

do rural residents. With respect to consequences, 'save money' is the important variable for the Javanese and the Sundanese.

Table 7.12: Similarities and differences between centrality indexes and identified motivations of urban and rural consumers between three ethnic groups.

Ethnic groups	Element or Coding (Centrality Indexes)		Identified motivations	
	Urban areas	**Rural areas**	**Saving money**	**Health benefits**
The Javanese	Happy (0.12) Save money (0.11) Inexpensive (0.11) Money for other things (0.09) Good health (0.08) Easy for preparation and cooking (0.08)	Happy (0.14) Money for other things (0.14) Save money (0.12) Inexpensive (0.07) Controlling budget (0.05)	Yes	Yes
The Sundanese	Happy (0.09) Good health (0.09) Money for other things (0.09) Sense of accomplishment (0.08) Inexpensive (0.07)	Happy (0.15) Money for other things (0.10) Inexpensive (0.09) Easy for preparation and cooking (0.09) Save money (0.08)	Yes	Yes
The Minangese	Happy (0.16) Good health (0.09) Inexpensive (0.08) Easy for preparation and cooking (0.08) Save money (0.08)	Good health (0.13) Happy (0.12) Money for other things (0.09) Inexpensive (0.08) Easy for preparation and cooking (0.08)	Yes	Yes

Chapter 8:

How motivations across urban and rural locations and four consumption situations translate to market segmentation

8.1 Introduction

This chapter focuses on market segmentations of local foods by examining urban and rural locations involving three major ethnic groups: the Javanese, the Sundanese and the Minangkabau as well as four different consumption situations. The purchasing motives of buying local foods have been revealed and represented in Hierarchy Value Maps (HVM) in Chapters 6 and 7 by using Means-End Chain (MEC) analysis. Further analysis called Decision Segmentation Analysis (DSA) is considered as an appropriate approach for market segmentation purposes with HVM supplying the unit of measurement. The segmentation is based on consumer motivations for purchasing local foods for each location and consumptions situation. Respondents' demographic information by segmentation is presented and also discussed. Finally, the managerial implications associated with the central messages for promotional strategies of local foods are presented.

8.2 Market segmentation of local foods in urban and rural areas

In order to obtain the implications of local food policies, it is necessary to consider that the market mechanism operates in an extremely competitive environment. The prominent purposes of market segmentation in this study are to (a) segment what motivates people to be included in local food markets in the urban and rural areas with different ethnic backgrounds, and (b) obtain profiles of respondents by segmentation.

8.2.1 A motivation-based segmentation study of local foods in urban Indonesia

A paper on 'A motivational-based segmentation study of local foods in urban Indonesia is presented in Appendix 2 that will be presented at the Fourth International Conference of Food Studies on 20-21 October 2014 at the Monash University of Prato, Italia. This paper focuses on the urban market segmentation, consumers' profiles and central messages to

promote local foods. The results of segmentation from examining rural consumers are provided in the subsequence sub-chapter.

8.2.2 A motivation-based segmentation study of local foods in rural Indonesia

Following the rules of DSA procedures, the analysis employs the following steps: (a) the minimum threshold value of significant implications is accounted for by 51 per cent of rural consumers (cf, Reynolds, 2006), (b) four clusters are used as desired cluster solutions, and (c) the maximum chain length within the MEC involves three to six chains in rural areas. There are 471 ladders involved to generate the HVMs for rural areas and these are presented in Figures 8.1 to 8.3.
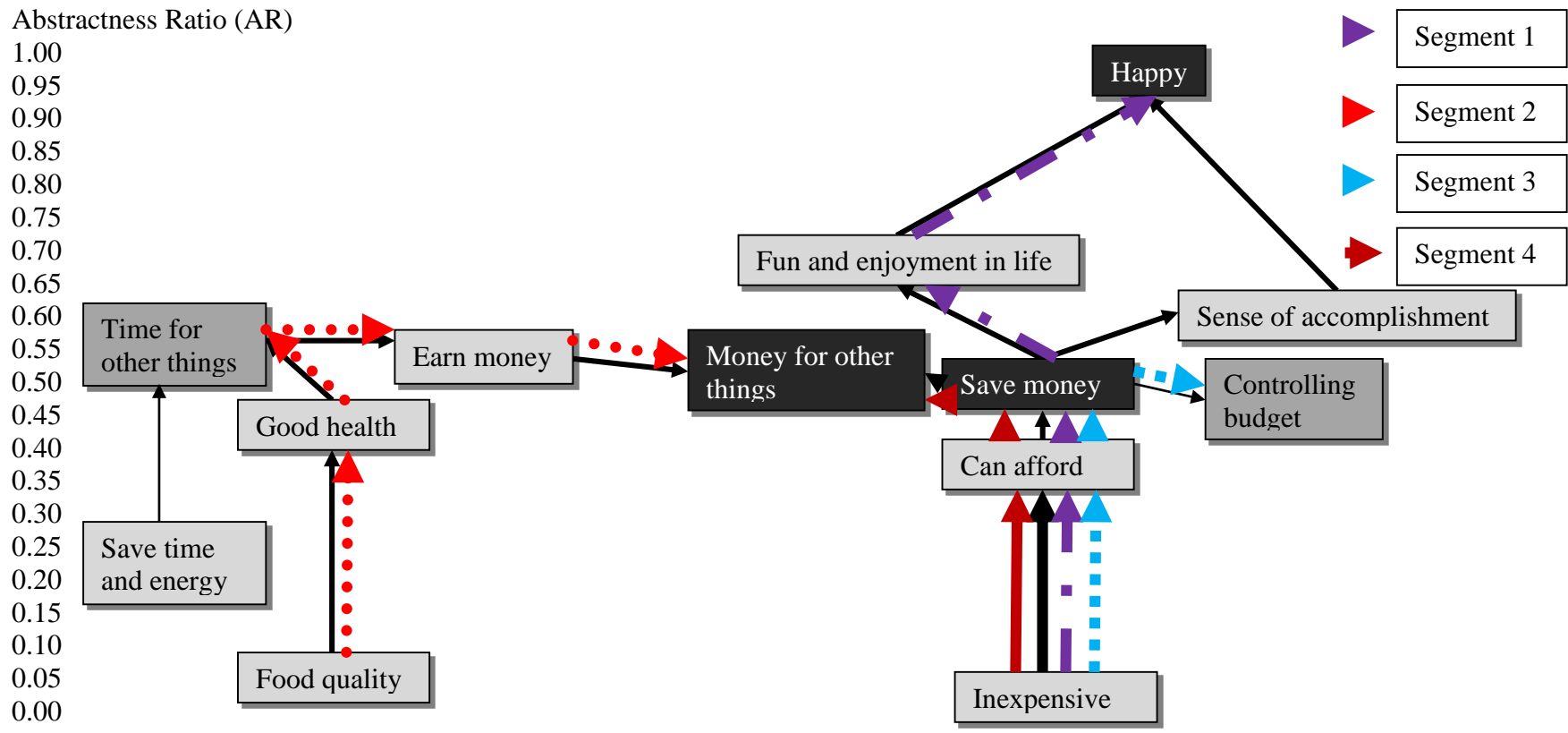
Figure 8.1: HVM of everyday eating local foods for rural Javanese people with four desired clusters at cut-off 8.
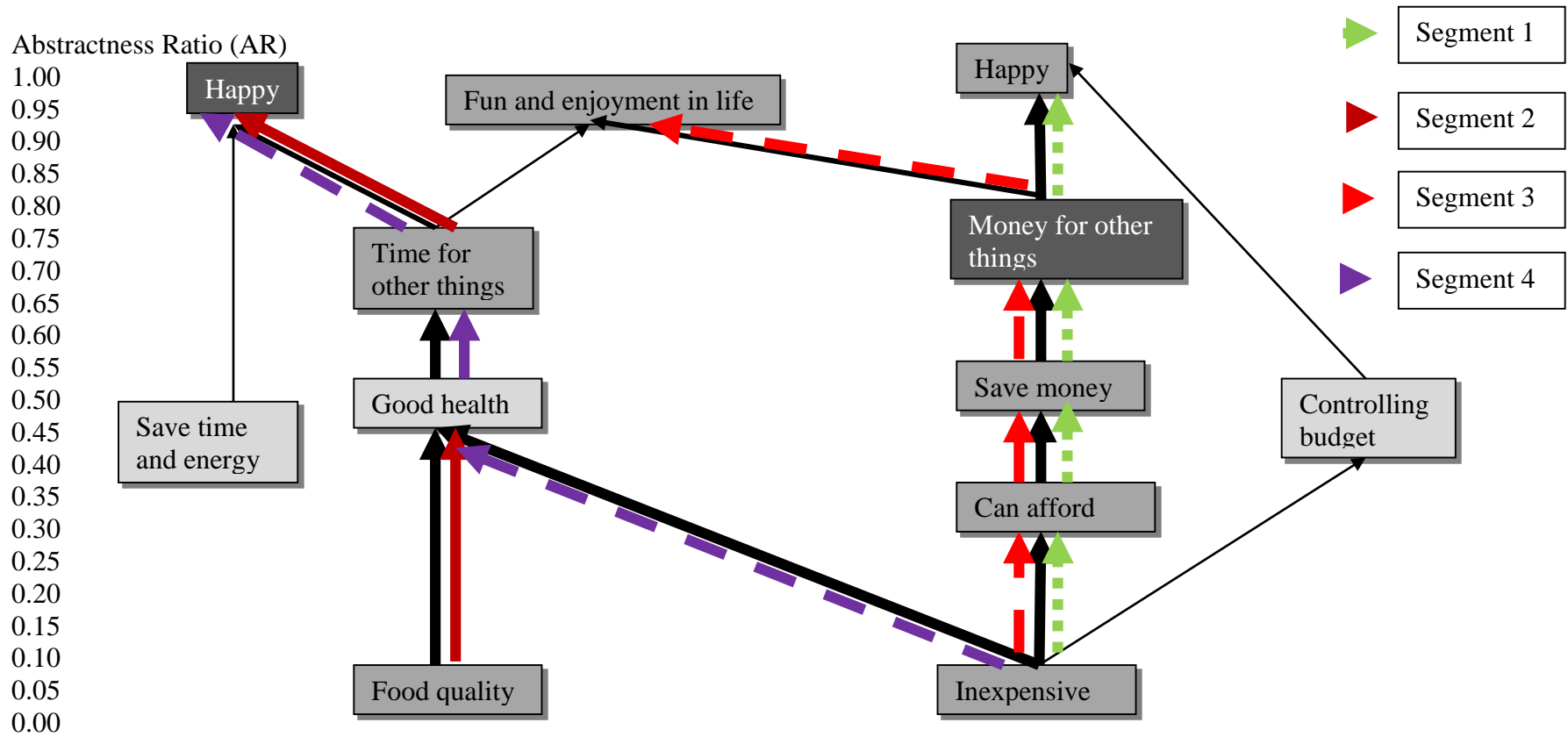
Figure 8.2: HVM of everyday eating local foods for rural Sundanese people with four desired clusters at cut-off 7.

Abstractness Ratio (AR)

1.00	
0.95	
0.90	
0.85	
0.80	
0.75	
0.70	
0.65	
0.60	
0.55	
0.50	
0.45	
0.40	
0.35	
0.30	
0.25	
0.20	
0.15	
0.10	
0.05	
0.00	

Segment 1

Segment 2

Segment 3

Segment 4

Fun and enjoyment

Happy

Money for other things

Time for other things

Good health

Save time and energy

Can afford

Save money

Controlling budget

Inexpensive

Food quality

Map legend:

Centrality Index (CI): 0.05 or less   0.05< and < 0.10   > 0.10 or more

Linkages (frequency) → < 20 connections mentioned → 20 to 40 connections mentioned → more than 40 connections

Figure 8.3: HVM of everyday eating local foods for rural Minangese people with four desired clusters at cut-off 7.

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Tables 8.1 to 8.3 present a summary of the calculations with regard to the percentage of ladders for each solution involving the number of cluster solutions and chain length. According to Phillips et al. (2010), when an increasing percentage of ladders from the addition of clusters or chain length are less than eight per cent, then the last addition of cluster or chain is excluded and the final cluster decision is achieved.

Table 8.1. Percentage of ladders for each solution in different desired cluster solutions and chain length for rural Javanese area.

The number of cluster solutions	Chain length			
	3 (%)	4 (%)	5 (%)	6 (%)
2	43	55	62	65
3	48	**62**	69	74
4	49	66	73	78

Table 8.2. Percentage of ladders for each solution in different desired cluster solutions and chain length for rural Sundanese area.

The number of cluster solutions	Chain length			
	3 (%)	4 (%)	5 (%)	6 (%)
2	56	68	74	74
3	60	**76**	81	83
4	61	79	84	86

Table 8.3. Percentage of ladders for each solution in different desired cluster solutions and chain length for rural Minangese area.

The number of cluster solutions	Chain length			
	3 (%)	4 (%)	5 (%)	6 (%)
2	**59**	65	68	69
3	71	77	83	84
4	71	77	83	84

From Table 8.1, it is noted that the additional cluster from three to four at chain length of four does not account for a significant increase that is less than eight per cent. The increase in percentage of ladders from chain length of four to five at the number of cluster solution

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of three is not significant. The final DSA solution for rural Javanese area is three clusters with a chain length of four. Following the same procedure, the final cluster for rural Sundanese area is three clusters with a chain length of four, whereas the final solution for rural Minangese area is three clusters with a chain length of three. The summary of motivation-based segmentation and sensitivity analysis using the percentage of ladders and persons involved are presented in Table 8.4.

Table 8.4: Identified motivation-based segmentation in rural areas with the sensitivity analysis.

Rural locations	Segmentation (name of segmentation)	Ladders		Persons involved	
		n	**%**	**n**	**%**
Purbalingga regency n ladders=154 n respondents=89 3 clusters with chain length of 4	1. Inexpensive-Can afford-Save money-Money for other things-Happy (Save money)	60	39	53	60
	2. Food quality-Good health-Time for other things-Money for other things -Happy (Health benefits)	46	30	43	48
	3. Inexpensive-Can afford-Save money-Controlling budget (Controlling budget)	16	10	16	20
Tasikmalaya regency n ladders= 167 n respondents=88 3 clusters with chain length of 4	1.Food quality-Good health-Time for other things-Happy (Health benefits)	62	37	55	63
	2.Inexpensive-Can afford-Save Money-Money for other things-Happy (Save money)	62	37	53	60
	3.Inexpensive-Can afford-Save Money-Fun and enjoyment in life (Fun and enjoyment in life)	14	8	15	17
Tanah Datar regency n ladders= 150 n respondents=87 3 clusters with chain length of 3	1. Inexpensive- Money for other things-Save money-Happy (Save money)	47	31	41	47
	2. Food quality-Good health-Time for other things-Happy (Health benefits)	56	37	49	56
	3. Inexpensive-Money for other things-Save money- Fun and enjoyment in life (Fun and enjoyment in life)	23	15	12	14

Some elements such as 'can afford', and 'fun and enjoyment in life' have been excluded from the original segments in terms of fulfilling the final chain length solution. For example, 'fun and enjoyment in life' element has been excluded from the segment 'save

money' for the rural Javanese area because this element has the lowest Centrality Index (CI=0.04, further detail on CI can be seen at Table 3, Appendix 1) compared to other elements.

In general, segment 'save money' is dominant in rural areas followed by 'health benefits', 'fun and enjoyment in life' and 'controlling budget' segments. Common linkages involving the level of Attributes-Consequences (A-C) and Consequences-Value (C-V) are found in all HVMs. With respect to the A-C linkages, the association between 'inexpensive', 'can afford', 'save money' 'money for other things' and 'controlling budget' are common for the segment 'save money', 'fun and enjoyment in life' and 'controlling budget' respectively. At the C-V level, there are common linkages found between 'money for other things', 'fun and enjoyment in life' and 'happy'.

The 'health benefits' segment has common linkages between 'food quality', 'good health', 'time for other things' at the A-C level whereas the association between 'money for other things' and 'happy' are common linkages found at the C-V level. The respondent profiles by segmentation for the three selected rural areas are presented in Figures 8.4 to 8.6
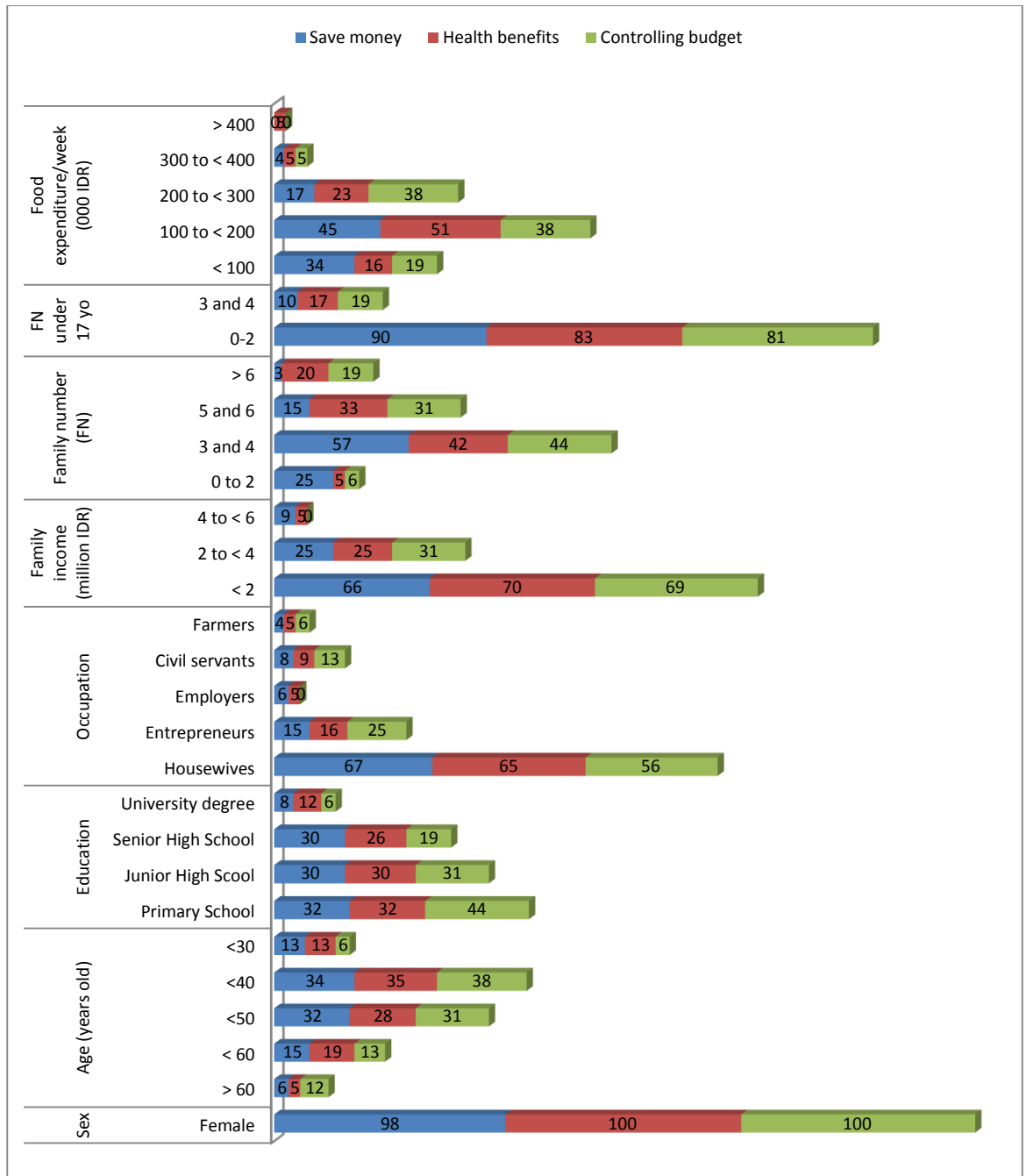
Figure 8.4: Characteristics of rural Javanese respondents by segmentation.
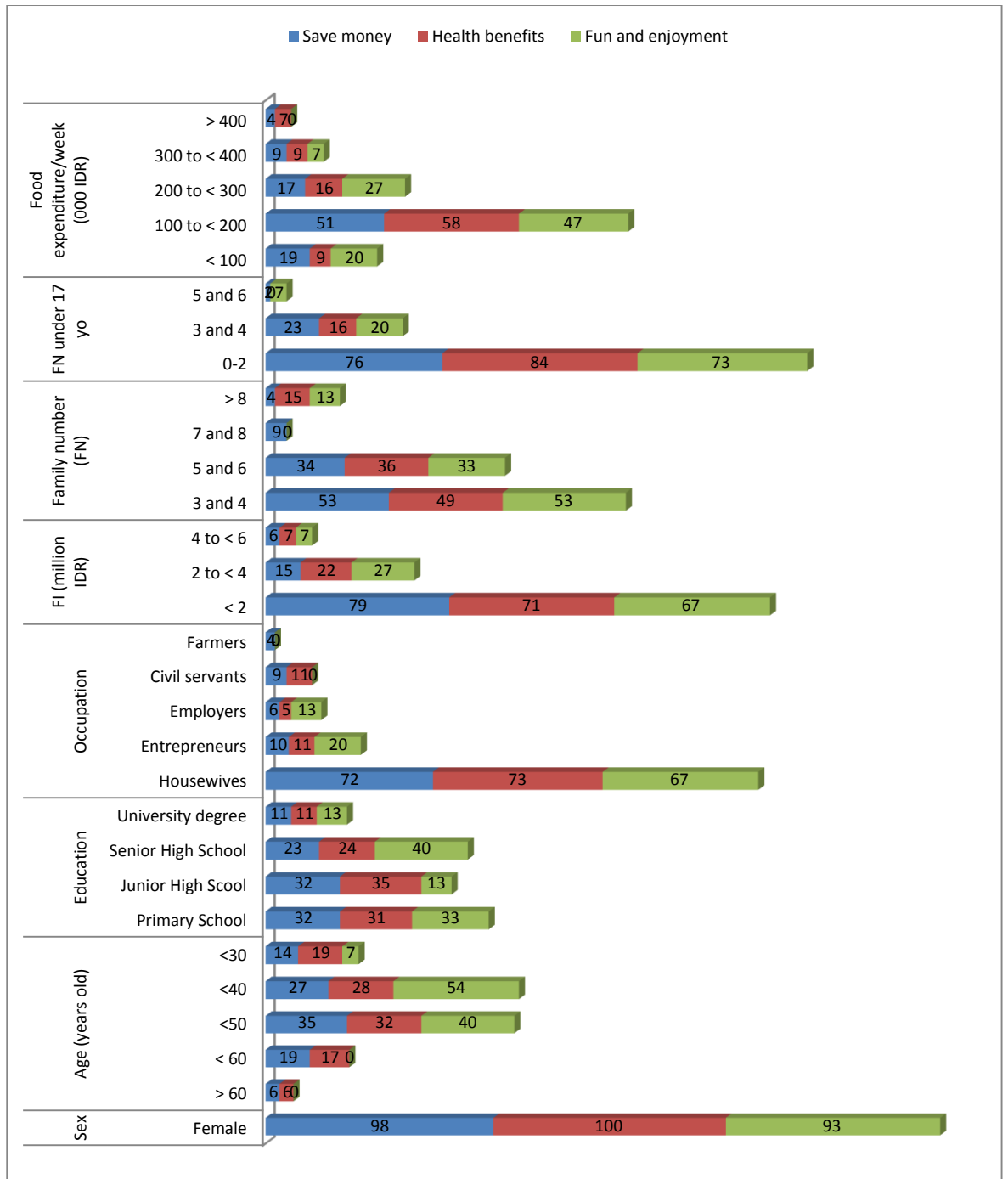
Figure 8.5: Characteristics of rural Sundanese respondents by segmentation.

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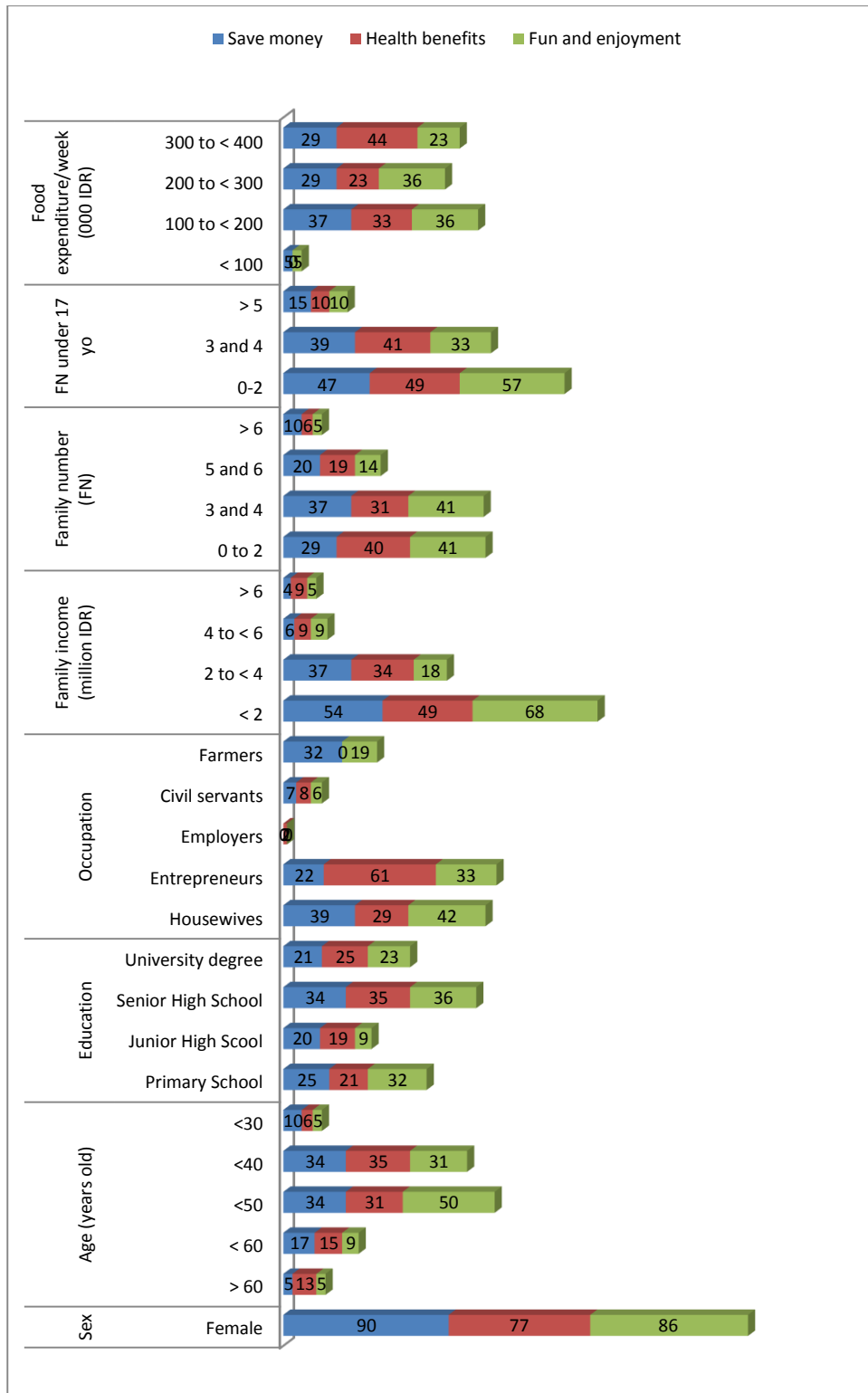
Figure 8.6: Characteristics of rural Minangese respondents by segmentation.

Table 8.5 presents the respondent characteristics for segments in rural areas. The motivations, consumer demography and attitudes are meaningful and of value, particularly for the development of local food promotion. Valli et al. (2000) mentioned that HVMs can be used as input for promotional strategies with regard to product development and supporting public policy implications. Tables 8.6 to 8.9 present the central messages for promotional strategies of local food by segmentation.

Table 8.5. Differences in consumer characteristics by segmentation in rural areas.

Rural locations (ethnic group)	Segmentations	The differences of consumer characteristics by segmentations
Purbalingga (the Javanese)	1. Save money 2. Health benefits 3. Controlling budget	**Segment of 'save money'**: more men involved in food-making decision and respondent are likely to spend less money for food a week. They tend to have fewer children under 17 years old when compared to other segments. **Segment of 'controlling budget'**: they are likely to have lower educational levels, and spend more money for food a week. The percentage of entrepreneur is higher in this segment when compare to other segments. **Segment of 'health benefits'**: they tend to have the consumer characteristics in between.
Tasikmalaya (the Sundanese)	1. Health benefits 2. Save money 3. Fun and enjoyment in life	**Segment of 'health benefits':** All respondents are female. This segment is available for all age categories and has fewer children under 17 years old. **Segment of 'save money':** this segment is dominated by respondents who have more children under 17 years old when compared to other segments. **Segment of 'fun and enjoyment in life':** they are likely to have a higher family income, higher educational levels and dominant age categories between 30 to 50 years old. The percentage of employers and entrepreneurs is higher in this segment.
Tanah Datar (the Minangese)	1. Save money 2. Health benefits 3. Fun and enjoyment in life	**Segment of 'save money':** this segment is dominated by females and farmers. **Segment of 'health benefits':** the proportion of entrepreneurs is higher. They spend more money for food a week than other segments. **Segment of 'fun and enjoyment in life':** they are likely to have fewer children, lower family incomes and age categories between 30 to 50 years old.

Table 8.6: Central messages for local foods promotion for 'save money' segment.

Means-End Chain (MEC) hierarchy	Central messages
Happy ↑	Being a good manager of the budget is associated with happiness.
Save money ↑↓ Money for other things ↑ Can afford ↑ Inexpensive	Three characteristics are emphasized that local foods are an affordable product for daily consumption. Therefore, some money can be saved and spent for other needs.
	The characteristic of local foods is emphasised as inexpensive product

Table 8.7: Central messages for local food promotion for 'health benefits' segment.

Means-End Chain (MEC) hierarchy	Central messages
Happy ↑	Being of good health will lead to happiness and sense of accomplishment.
Money for other things ↑ Time for other things ↑ Good health	Three characteristics are emphasized, that are eating local foods is good for health. Being in a good health is associated with reducing the health cost and saving time from the hospital, so can spend money for other things and do more activities.
↑ Food quality	Better food quality is associated with local foods.

Table 8.8: Central messages for local foods promotion for 'fun and enjoyment in life' segment.

Means-End Chain (MEC) hierarchy	Central messages
Fun and enjoyment in life	Fun and enjoyment in life can be achieved when they can save money and spend it on other things.
Save money ⇵ Money for other things ↑ Can afford ↑ Inexpensive	Local foods are believed by consumers to be an affordable product. Hence, they can save money and spend it on other things.
	Local foods are associated with cheaper products.

Table 8.9: Central messages for local food promotion for 'controlling budget' segment.

Means-End Chain (MEC) hierarchy	Central messages
Controlling budget ↑ Save money ↑ Can afford ↑ Inexpensive	Three consequences are emphasised, that local foods are an affordable product so they can save money and control their budget.
	Local foods are associated with cheaper price.

8.3 A motivation-based segmentation study of local foods for consumption in different situations

The HVMs for different consumption situations, namely everyday eating, eating at a restaurant, eating when travelling and eating when celebrating religious festivals, has been produced by using Mean-Ends Chain (MEC) analysis and presented in Chapter 6. The Decision Segmentation Analysis (DSA) is employed to segment the local food market. Each

different occasion involves 533 respondents and the detailed sampling procedures are explained in Section 3.4.3.

8.3.1 Everyday eating

The segmentation procedure begins with the HVMs that are generated from 892 HVMs (on average 2 HVMs per respondent). Three values are then determined:

1) The minimum threshold value that represents the significant direct connection to be involved in the HVMs.

2) Five desired clusters are identified in the solution. The use of the Centrality Index (CI) and how frequently a connection is mentioned by respondents are valuable considerations for identifying the desired clusters. The desired clusters are presented in Figures 8.7 to 8.8.

3) Chain length of three to six is employed. The chain length of three has four elements or variables and chain length of four has five elements.
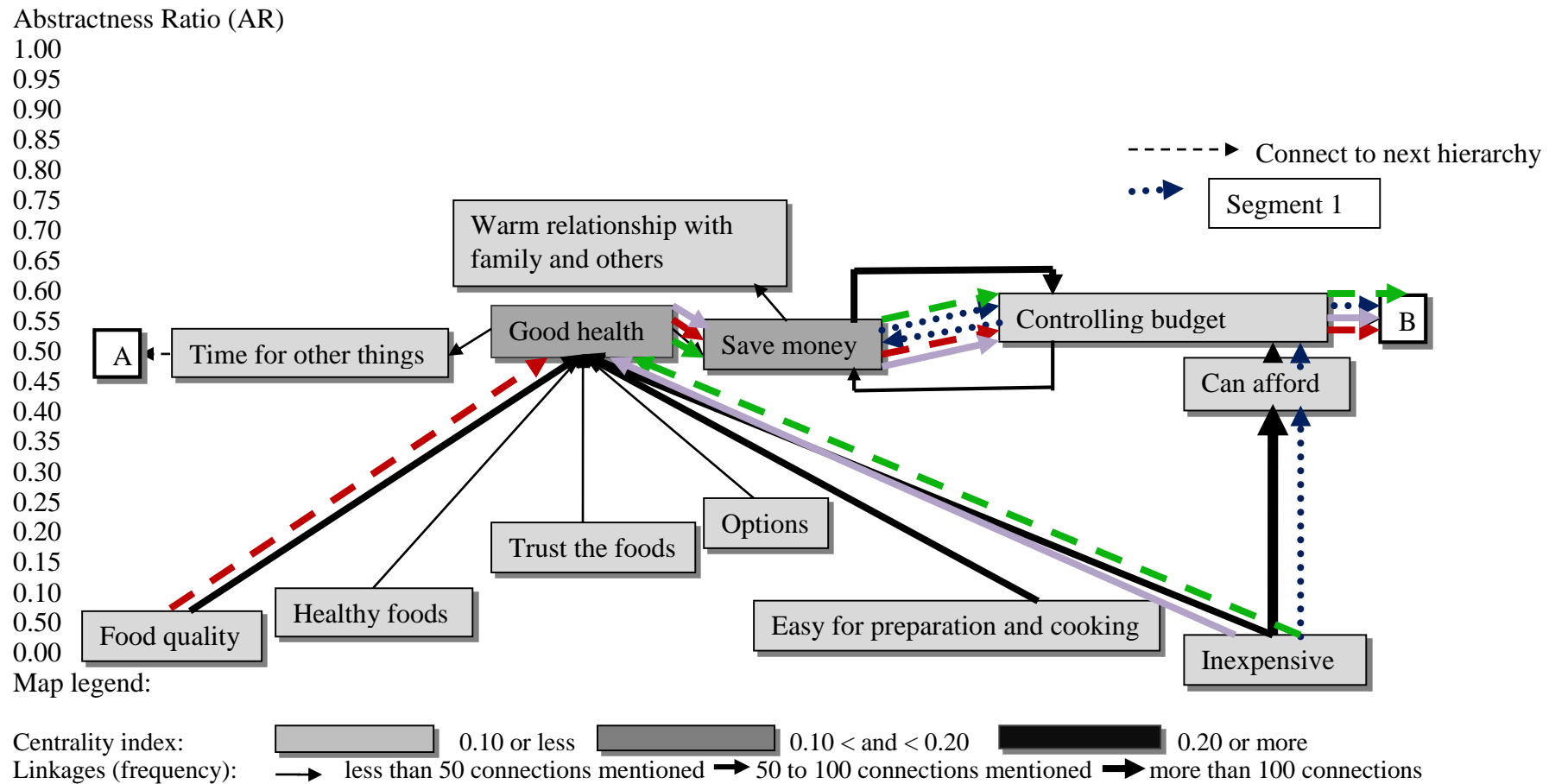
Figure 8.7: Final HVM of local foods for everyday eating with five desired clusters at cut-off level of 19.
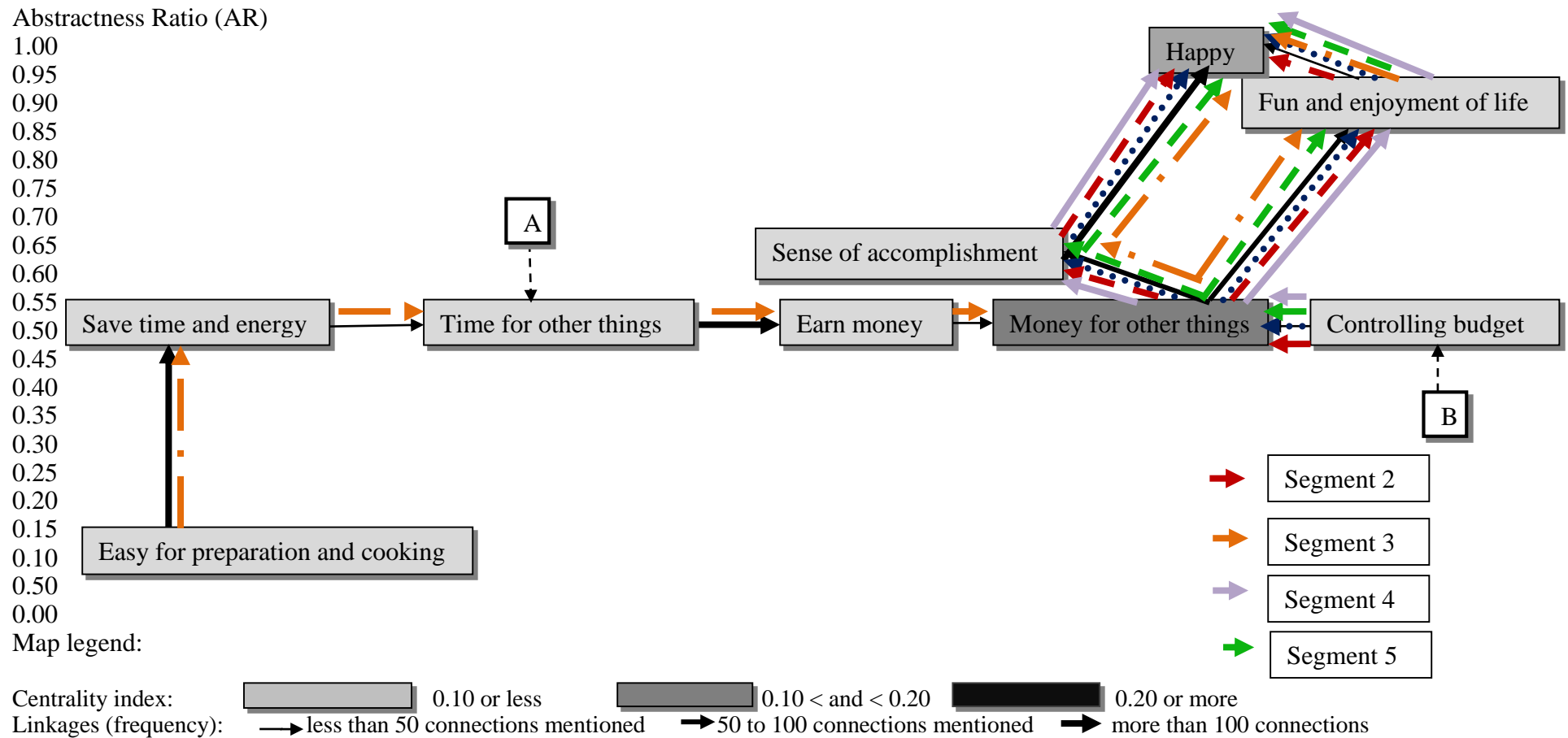
Figure 8.8: Final HVM of local foods for everyday eating with five desired clusters at cut-off level of 19.

In order to identify the cluster solutions, the percentage of ladders involved is calculated by each combination of desired cluster solutions and chain length. The calculation is presented in Table 8.10 and the discussion that follows.

Table 8.10: Percentage of ladders for each combination of cluster solution and chain length for everyday eating.

Number of cluster solutions	Chain length			
	3 (%)	4 (%)	5 (%)	6 (%)
2	38	47	55	57
3	46	59	67	70
4	51	66	**76**	79
5	55	70	80	83

Table 8.10 shows that the addition from four to five clusters or from five to six chain lengths at four clusters with chain length of five does not account for a significant increase in percentage (less than 8%). Then, the final solution is four clusters with a chain length of four achieved.

Reynolds (2006) explained that the percentage of ladders and persons involved by segmentation can be used as important measurement keys for sensitivity analysis. Table 8.11 presents the segmentations for everyday eating that are based on identified motivations included in the sensitivity analysis.

Table 8.11: Identified motivation-based segmentation for everyday eating with the sensitivity analysis.

Segmentation (name of segmentation)	Ladders n=892		Persons involved n=533	
	n	%	n	%
Inexpensive-Can afford-Controlling budget-Money for other things-Sense of accomplishment and Fun and enjoyment of life-Happy (Controlling budget)	290	33	279	52
Food quality- Good health-Save money-Controlling budget-Money for other things-Happy (Health benefits)	218	24	212	40
Easy for preparation-Save time-Time for other things-Money for other things-Sense of accomplishment and Fun and enjoyment in life-Happy (Easy for preparation 1)	118	13	116	22
Easy for preparation-Good health-Save money-Controlling budget-Money for other things-Happy (Easy for preparation 2)	78	9	77	14

If the original HVM consists of more than a five chain length, then the element that has the lowest Centrality Index (CI) is excluded. In order to fulfil the final cluster required, 'sense of accomplishment' and 'fun and enjoyment in life' are excluded from 'health benefits' and 'easy for preparation 2' segments. 'Controlling budget' segment is dominated by the consumers' motivations for purchasing local food followed by 'health benefits' and 'easy for preparation' segments. The next important step in the segmentation procedure is to profile the respondents' characteristics. There are recorded in Table 8.12, whereas Table 8.13 shows the differences in consumers' characteristic by segmentation for daily eating.

Table 8.12. Characteristics of respondents by segmentation for everyday eating.

Respondent characteristics	Categories	Segmentation			
		Controlling budget	**Health benefits**	**Easy for preparation 1**	**Easy for preparation 2**
Sex	Female	95	92	92	94
Age (years old)	>60	8	6	7	10
	50< and ≤ 60	18	17	13	9
	40< and ≤50	32	35	32	37
	30< and ≤40	32	31	31	30
	≤30	10	11	17	14
Education level attained	Primary School	24	21	14	20
	Junior High School	21	23	22	25
	Senior High School	35	33	39	35
	University degree	20	23	25	20
Occupation	Housewife	62	57	59	57
	Entrepreneur	14	23	12	22
	Employer	5	6	17	5
	Civil servant	9	7	12	7
	Others	6	2	0	3
	Farmer	4	5	0	6
Family Income (million IDR/month)	≤2	60	57	50	56
	2< and ≤4	25	29	34	33
	4< and ≤6	8	7	8	6
	>6	7	7	7	5
Family number (FN)	0< and ≤2	6	5	6	8
	3< and ≤4	42	39	43	45
	5< and ≤6	37	38	33	34
	>6	15	18	18	13
FN under 17 years old	0< and ≤2	80	75	77	78
	3< and ≤4	18	21	20	17
	≥5	2	4	3	5
Food expenditure/ week (000 IDR)	≤ 100	15	9	9	14
	100 < and ≤200	36	36	38	33
	200 < and ≤300	18	20	22	24
	300 < and ≤400	16	20	14	15
	400 < and ≤500	2	2	1	6
	500 < and ≤600	6	7	9	9
	>600	7	6	7	0

Table 8.13. Differences in consumer characteristics by segmentation for everyday eating.

Segmentation	Differences in respondent characteristics
Controlling budget	The proportion of females and housewives are higher than other segments. The households tend to have a lower family income.
Health benefits	The family number is recorded higher in this segment when compared to easy for preparation segment.
Easy for preparation 1	The respondents tend to have higher educational levels. The percentage of employers or civil servants is higher.
Easy for preparation 2	No specific respondent characteristics found.

From the summary in Table 8.12 it can be concluded that different segmentations have different respondent characteristics. Commonly housewives with a lower family income and with a large family number consider 'controlling budget' as a motive when making in order purchasing local foods for daily eating. However, working people with higher family income consider 'easy for preparation' when making food in order purchasing decisions. This is understandable as consumers need to manage their time in order to do a lot of activities.

8.3.2 Eating at a restaurant

The Hierarchy Value Maps (HVM)s for everyday eating, presented in Section 6.3.2 are used as a potential data set. The Decision Segmentation Analysis (DSA) approach is employed to identify three values:

1) Implication threshold that accounts for at least 50 per cent of total direct connection and is 52 per cent for this study.

2) Five desired clusters are set that are based on two values: Centrality Index (Table 6.9) and the frequency that a connection is mentioned by consumers. The desired clusters are presented in Figures 8.9 and 8.10.

3) The chain length for this study ranges from three to six.
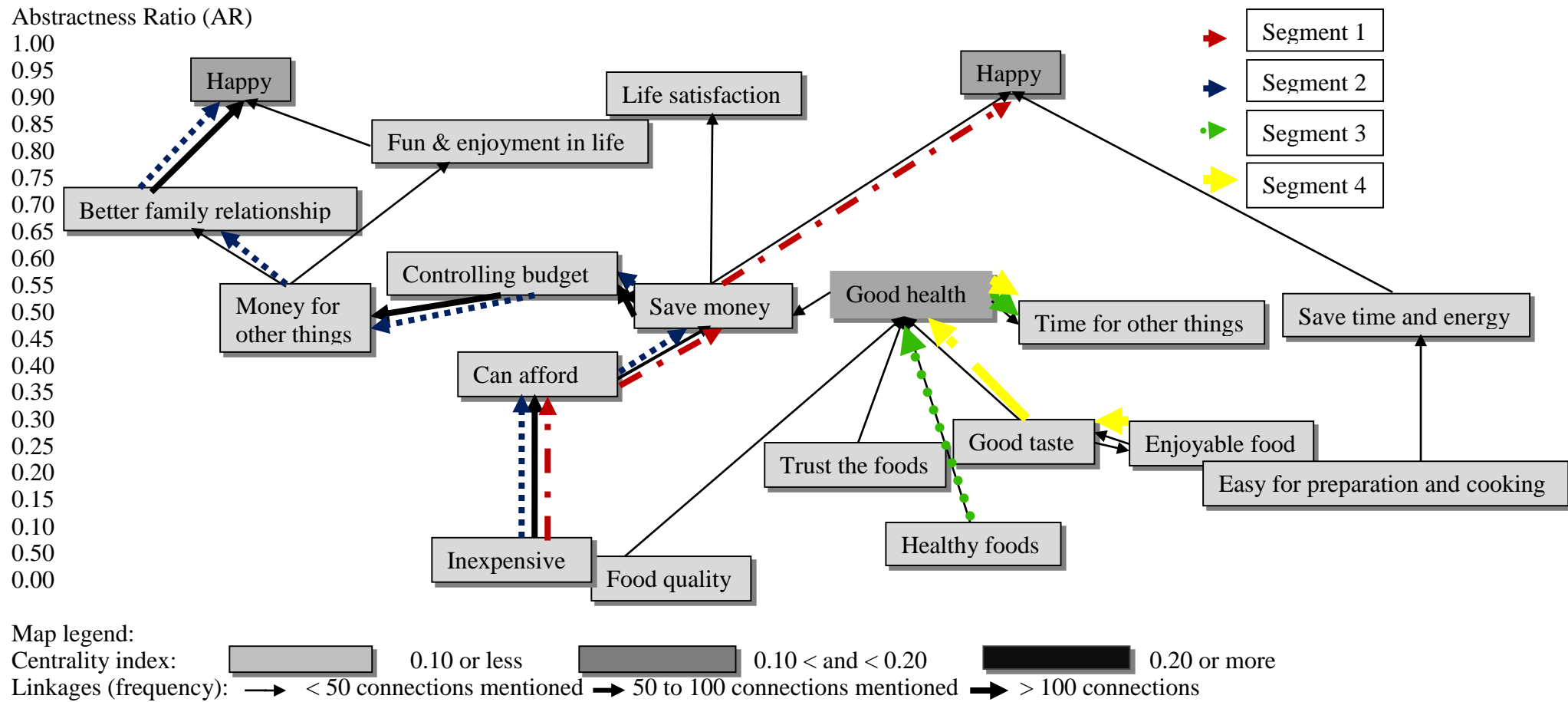
Figure 8.9: HVM of local foods for eating at a restaurant with five desired clusters at cut-off level of 10.
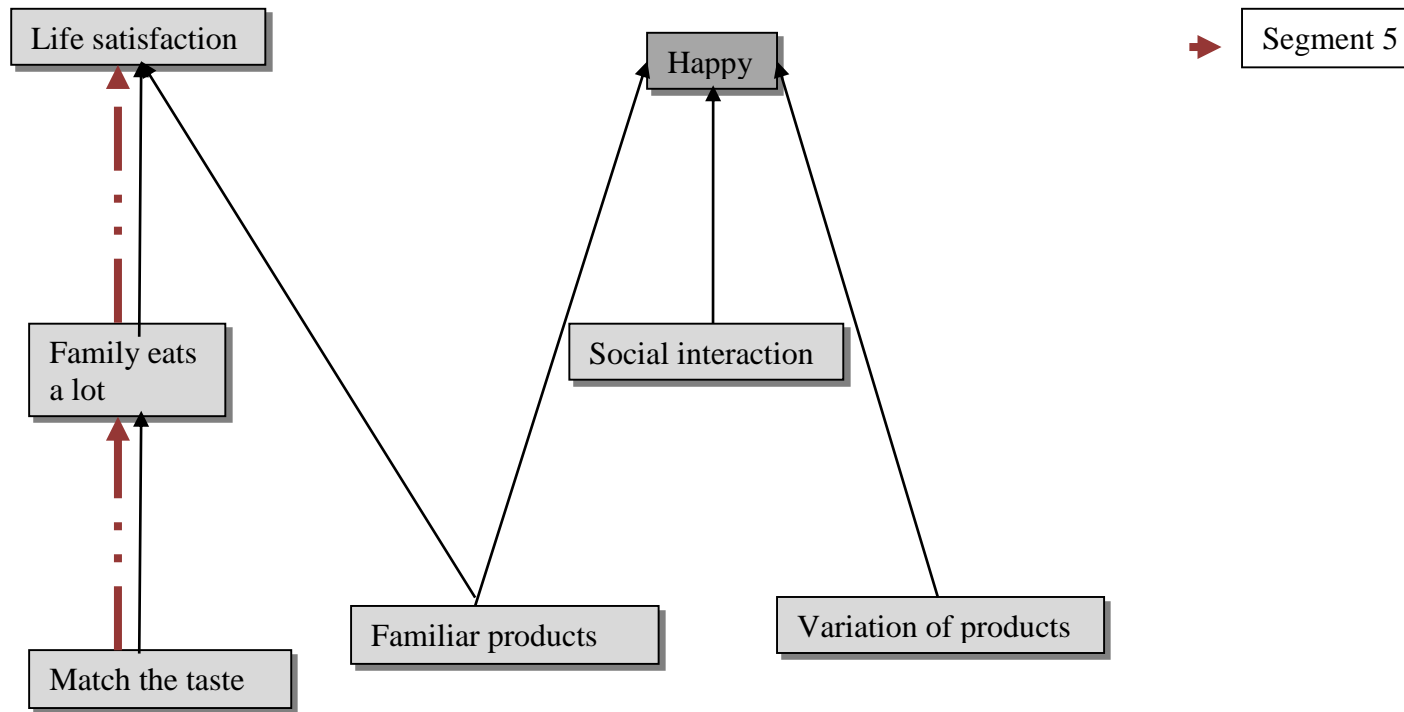
Figure 8.10: HVM of local foods for eating at a restaurant with five desired clusters at cut-off level of 10.

Table 8.14 presents the percentage of ladders for different desired clusters and chain length. Following the rules explained by Philips et al. (2010), if the increasing of the percentage of ladders does not account for more than 8 per cent, then the last addition of cluster or chain length is excluded. By employing this rule, a final solution is achieved that involves five clusters with chain length of three. In addition, a sensitivity analysis is conducted with the percentage of ladders and persons involved by segmentation and are presented in Table 8.14.

Table 8.14: Percentage of ladders for each combination of cluster solution and chain length for eating at a restaurant.

Number of cluster solutions	Chain length			
	3 **(%)**	**4** **(%)**	**5** **(%)**	**6** **(%)**
2	24	28	28	29
3	42	48	50	51
4	56	62	64	65
5	**64**	70	73	74

Table 8.15: Identified motivation-based segmentation for everyday eating with the sensitivity analysis for eating at a restaurant.

Segmentation (name of segmentation)	Ladders n=709		Persons involved n=533	
	n	**%**	**n**	**%**
1. Healthy food-Good health-Time for other things (Health benefits)	156	22	132	25
2. Inexpensive-Save money-Money for other things-Happy (Save money 1)	108	15	113	21
3. Inexpensive-Can afford- Save money-Happy (Save money 2)	95	13	101	19
4. Enjoyable food-Good taste-Good health-Time for other things (Taste matters 1)	102	14	91	17
5. Match with taste-Family eats a lot-Life satisfaction (Taste matters 2)	61	9	63	12

The segments of eating at a restaurant have a shorter chain but vary in motivations when compared to segments of everyday eating. However, 'save money' and 'health benefits' are still dominated by the motivation across the segments. 'Taste matters' being an important consideration for respondents that lead them to achieve the final values: happiness and life satisfaction. It is noted that two segments do not have a complete A-C-V

link. This indicates that consumers have a low involvement in local foods when eating at restaurants.

Three elements are excluded from the original chain involving the 'save money 1' segment to set the chain length of three which are 'can afford', 'controlling budget' and 'better family relationship' because of a low Centrality Index (CI is given in Table 6.9). The detail of consumer demography by segmentation is presented in Table 8.16. The differences in respondent characteristics are then presented in Table 8.17.

Table 8.16: Characteristics of respondents by segmentation for eating at restaurants.

Respondent characteristics	Categories	Segmentation				
		Health benefits	**Save money 1**	**Save money 2**	**Taste matters 1**	**Taste matters 2**
Sex	Female	94	96	91	95	88
Age (years old)	>60	7	6	6	9	12
	50< and ≤ 60	21	13	17	17	15
	40< and ≤50	31	32	35	33	43
	30< and ≤40	29	36	29	32	28
	≤30	12	13	13	11	2
Education	Primary School	26	27	23	18	30
	Junior High School	24	23	23	20	12
	Senior High School	29	39	37	36	42
	University degree	21	12	17	26	16
Occupation	Housewife	61	73	64	64	42
	Entrepreneur	17	5	19	25	37
	Employer	9	2	5	1	0
	Civil servant	9	5	6	10	9
	Farmer	2	3	5	0	12
	Student	3	0	1	0	0
Family income (million IDR/month)	≤2	55	61	67	53	53
	2< and ≤4	31	25	21	35	26
	4< and ≤6	7	9	10	5	11
	>6	7	5	2	7	10
Family number (FN)	0< and ≤2	5	5	6	2	4
	3< and ≤4	64	49	45	50	30
	5< and ≤6	16	30	41	37	46
	>6	15	16	8	11	20
FN under 17 years old	0< and ≤2	78	82	82	83	59
	3< and ≤4	21	15	16	5	41
	≥5	1	3	2	2	0
Food expenditure/ week	≤ 100	16	15	21	17	3
	100 < and ≤200	34	37	32	26	25
	200 < and ≤300	20	20	20	22	30
	300 < and ≤400	20	16	10	23	20
	>400	10	12	17	12	23

Table 8.17. Differences of consumer characteristics by segmentation for eating at a restaurant.

Segmentation	The differences in respondent characteristics
Heath benefits	No specific respondents' characteristic is found.
Save money 1	This segment is dominated by housewives.
Save money 2	No specific respondents' characteristic is found.
Taste matters 1	The respondents tend to have a higher level of education.
Taste matters 2	More involvement of males in this segment with the dominant age categories between 40 to 50 years old. They are likely to work (entrepreneur, civil servants and farmers), have better family income, and spend more money for food/week compared to other segments.

8.3.3 Eating when travelling

Food can attract tourists when they are travelling as a part of agro-tourism. They buy food for food taste, or as a souvenir to share with families and friends. The Hierarchy Value Map (HVM) for travelling has been produced and discussed in Section 6.3.3. These HVMs in this section are the data set for segmentation analysis. Five clusters with chain length from three to six are employed and presented in Figures 8.11 to 8.14.
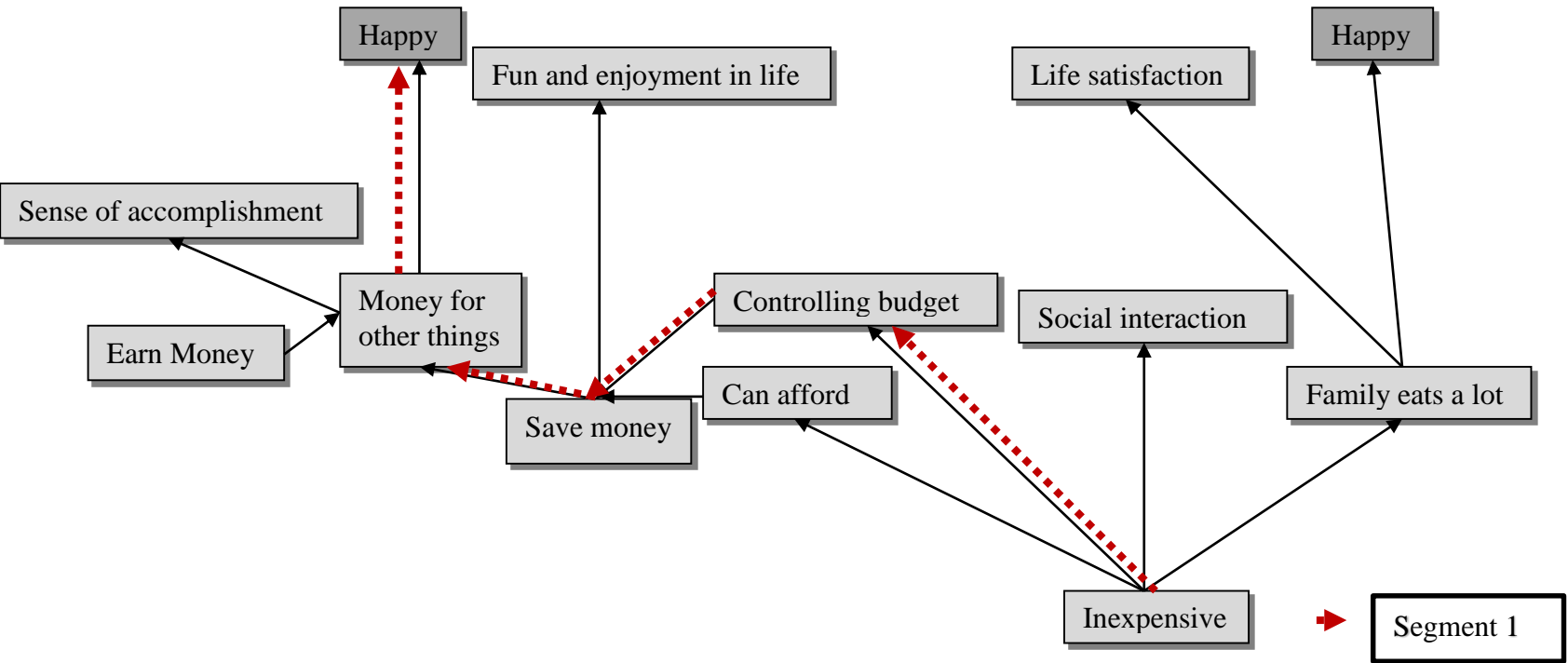
Figure 8.11: HVM of local foods for travelling with six desired clusters at cut-off level of 8.

Figure 8.12: HVM of local foods for travelling with six desired clusters at cut-off level of 8.
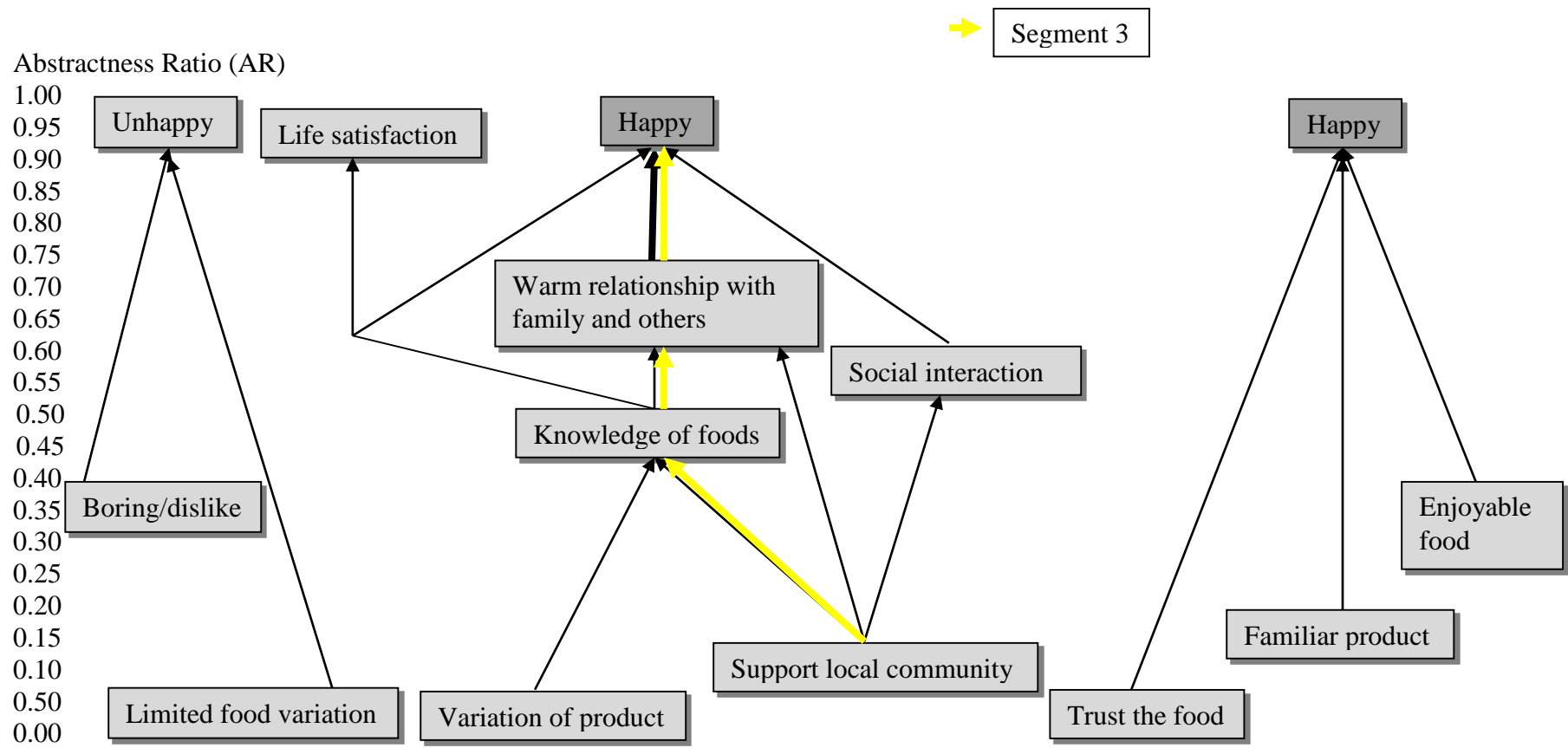
Figure 8.13: HVM of local foods for travelling with six desired clusters at cut-off level of 8.

Abstractness Ratio (AR)

Happy	Life satisfaction				

Prosperous family/area/nation — Share foods — Social interaction — Family eats a lot — Knowledge of foods

Local symbol

Segment 5
Segment 6

Map legend:
Centrality index: ▭ 0.10 or less ▬ 0.10 < and < 0.20 ▮ > 0.20 or more
Linkages (frequency): → < 50 connections mentioned → 50 to 100 connections mentioned → more than 100 connections

Figure 8.14: HVM of local foods for travelling with six desired clusters at cut-off level of 8.

In order to identify the final cluster solution, the percentage of ladders for each combination of desired cluster and chain length is calculated and presented in Table 8.18. A final solution of three clusters with chain length of four is achieved. In other words, the increasing percentage of ladders from an addition of three to four clusters or the chain length from four to five at the point of three clusters with chain length of four are not significant (less than 8%). The percentage of ladder and person involved by segmentation is calculated as the key parameters for sensitivity analysis and presented in Table 8.19.

Table 8.18: Percentage of ladders for each combination of cluster solution and chain length when travelling.

Number of cluster solutions	Chain length			
	3 **(%)**	**4** **(%)**	**5** **(%)**	**6** **(%)**
2	39	44	45	46
3	51	**59**	61	61
4	57	65	67	67
5	61	69	71	71
6	62	70	72	72

Table 8.19: Identified motivation-based segmentation when travelling with the sensitivity analysis.

Segmentation (name of segmentation)	Ladders n= 472		Persons involved n=533	
	n	**%**	**n**	**%**
1. Inexpensive-Controlling budged-Save money-Money for other things-Happy (Save money)	188	40	184	35
4. Support local communities-Knowledge of food-warm relationships with family and others-Happy (Support local communities)	110	23	112	21
3. Food quality-Good taste-Good health-Time for other things-Happy (Good health)	100	21	94	18

As reported and discussed in Section 6.3.3, 'save money' and 'health benefits' are two identified motivations to buy local foods when travelling. However, further analysis of DSA is identified; 'support local communities' being an important purchasing motivation. This is understandable because the DSA approach divides HVM into some particular segments. For example, 'health benefits' motivation is broken down into two segments: (a) food quality-good taste-good health-time for other things-happy; (b) food quality-good taste-family eats a lot-happy which account for 21 and 8 per cent of ladders respectively. However, the second pathway of 'health benefit' segment is excluded from the final cluster

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solution due to an insignificant increase in the percentage of ladders. In addition, the 'support local communities' segment accounts for 23 per cent of ladders. The details of respondent characteristics by segmentation are presented in Table 8.20 and the differences in characteristics between segments are then presented in Table 8.21.

Table 8.20: Characteristics of respondents by segmentation when travelling.

Respondent characteristics	Categories	Segmentations		
		Saving money	Support local communities	Health benefits
Sex	Female	95	91	95
Age (years old)	>60	9	10	13
	50< and ≤ 60	20	18	29
	40< and ≤50	31	25	37
	30< and ≤40	32	30	14
	≤30	8	17	7
Education	Primary School	28	14	10
	Junior High School	28	13	30
	Senior High School	31	42	40
	University degree	13	31	20
Occupation	Housewife	66	51	61
	Entrepreneur	7	13	24
	Employer	14	9	6
	Civil servant	8	12	8
	Farmer	4	3	1
	Student	1	2	0
Family income (million IDR/month)	≤2	64	43	51
	2< and ≤4	27	32	34
	4< and ≤6	5	12	11
	>6	4	14	9
Family number (FN)	0< and ≤2	7	5	5
	3< and ≤4	45	47	36
	5< and ≤6	33	33	42
	>6	15	15	17
FN under 17 years old	0< and ≤2	80	78	75
	3< and ≤4	19	20	20
	≥5	1	2	5
Food expenditure/week	≤ 100	19	7	9
	100 < and ≤200	48	37	34
	200 < and ≤300	7	17	19
	300 < and ≤400	14	15	25
	>400	12	24	14

Table 8.21: Differences of consumer characteristics by segmentation when travelling.

Segmentations	Differences in respondent characteristics
Save money	This segment is dominated by housewives.
Support local communities	Younger respondents (less than 30 years old), respondents have higher education level and family income, working, and spending more money for food a week are more involved in this segment.
Health benefits	The proportion of older respondents (age between 40 to 60 years old) is quite significant in this segment.

8.3.4 Eating when celebrating religious festivals

Indonesian people commonly provide more food when celebrating religious festivals such as *Ramadhan, Idul Fitri, Idul Adha*, Christmas day to serve families, friends, neighbours or colleagues who come to visit. The identified motivation namely 'save money' has been discussed in Section 6.3.4 and the Hierarchy Value Maps are presented in Figures 6.17 to 6.19. These HVMs are then used in this chapter as the potential chains for segmentation that is based on motivation. Five clusters are employed and presented in Figures 8.15 to 8.17.
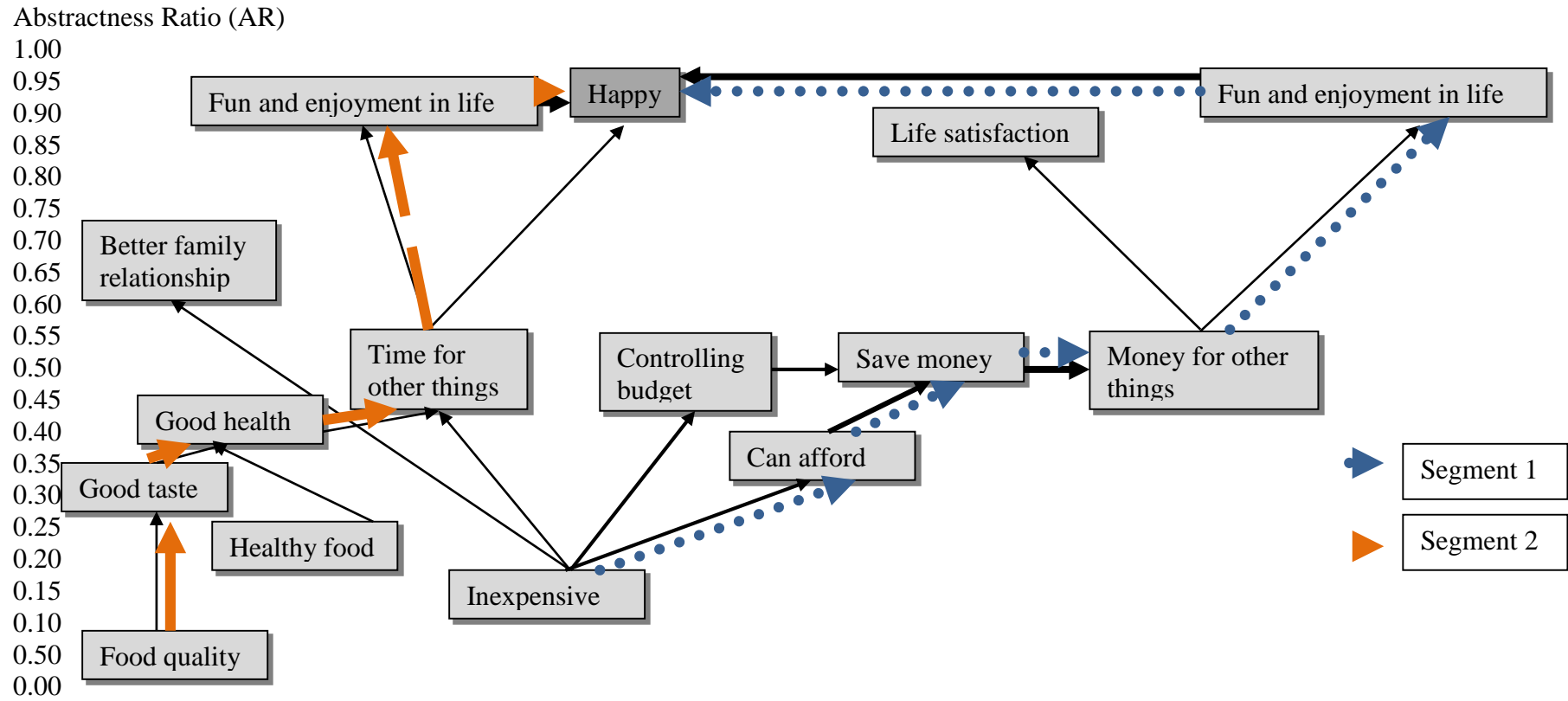
Figure 8.15: HVM of local foods when celebrating religious festivals with five desired clusters at cut-off level of 8.

Abstractness Ratio (AR)

Figure 8.16: HVM of local foods when celebrating religious festivals with five desired clusters at cut-off level of 8.
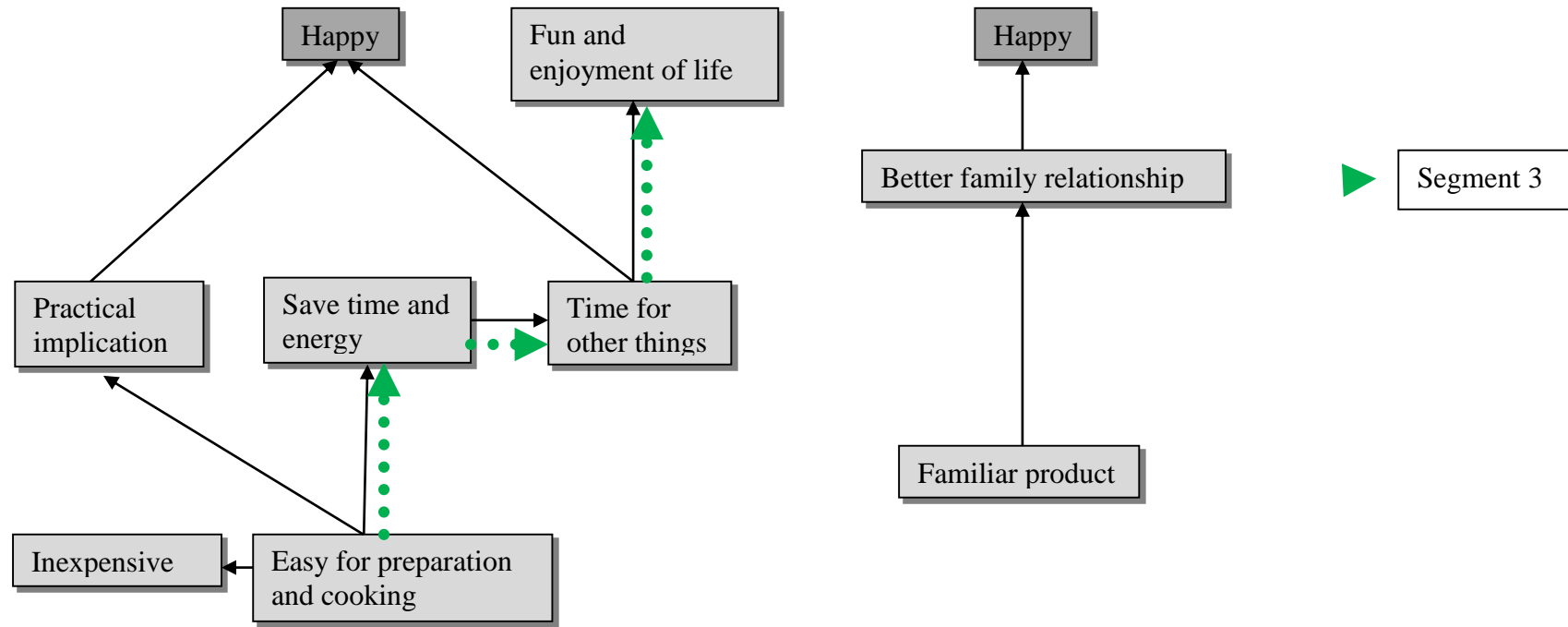
Map legend:
Centrality index: ⬜ 0.10 or less ⬛ 0.10 < and < 0.2 ⬛ > 0.20 or more
Linkages (frequency): → < 50 connections mentioned ➡ 50 to 100 connections mentioned ➡ more than 100 connections

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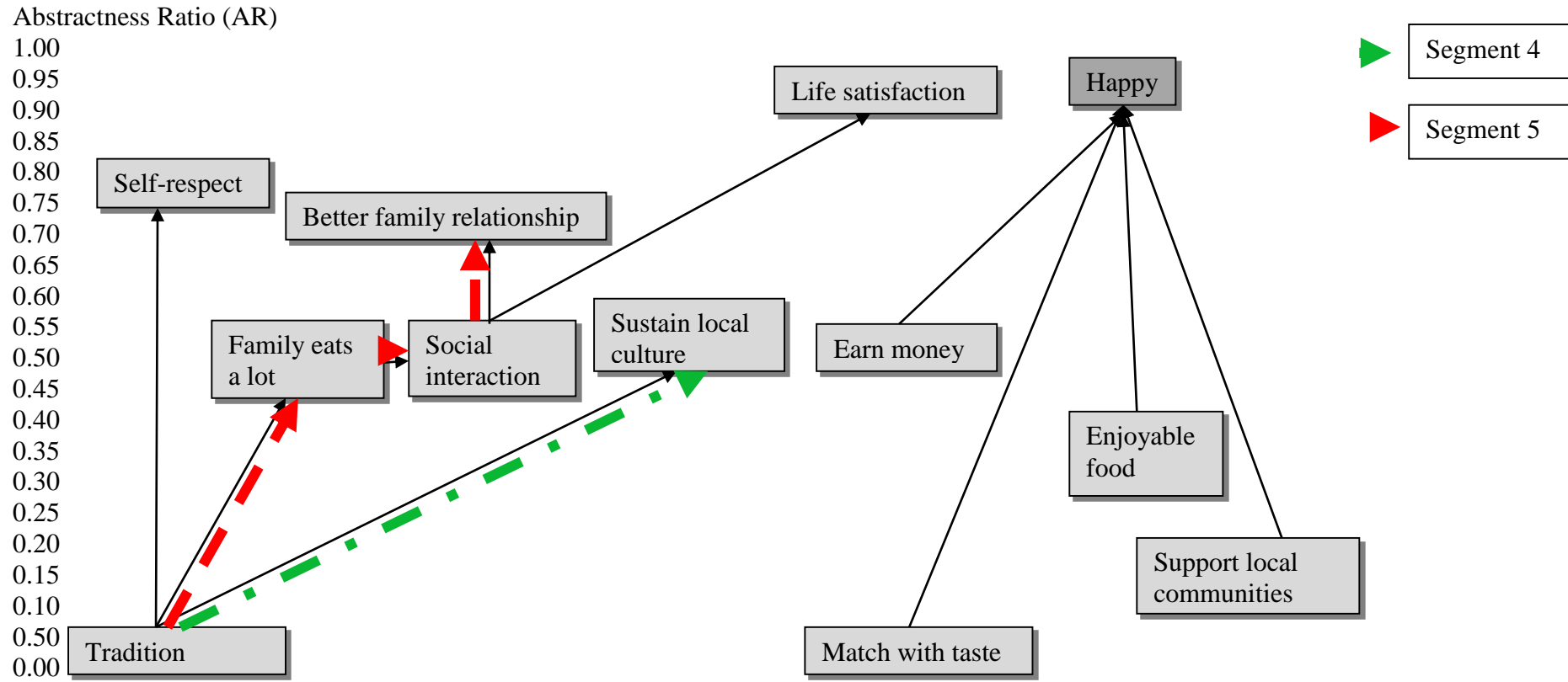
Figure 8.17: HVM of local foods when celebrating religious festivals with five desired clusters at cut-off level of 8.

Philips et al. (2010) suggested that the increasing of percentage of ladders though the addition of clusters or chain length could be used to identify the final cluster. If the increasing of percentage of ladders was less than 8 per cent, then the last cluster or chain should be excluded. Following this rule, a final cluster solution for this occasion is four clusters with chain length of four. Table 8.22 presents the percentage of ladders for each combination of desired cluster and chain length.

Table 8.22: Percentage of ladders for each combination of cluster solution and chain length when celebrating religious festivals.

Number of cluster solutions	Chain length			
	3 (%)	4 (%)	5 (%)	6 (%)
2	42	50	51	52
3	52	62	63	64
4	62	**72**	73	74
5	68	78	79	80

Table 8.22 shows the sensitivity analysis by segmentation that is based on the two key parameters, namely the percentage of ladders and persons involved. The 'save money' segment dominates the motivation to purchase local foods when celebrating religious festivals, followed by 'health benefits', 'easy for preparation' and 'sustain local culture' segments. Three additional motivations are identified compared to the findings that are reported in Chapter 6. In this chapter, only one motivation is detected namely 'save money'. On the one hand, this may be because when using the DSA analysis, the main HVM is divided into several pathways. Therefore, the output of DSA analysis is more specific to particular pathways. On the other hand, the interpretation of MEC analysis by using the Centrality Index and the frequency of a connection is mentioned by respondents representing for the whole data set. Thus, it is understandable that more additional pathways are identified for segmentation. In conclusion, the DSA analysis is an appropriate method to employ for HVM as a further analysis of segmentation that involves a bigger number of respondents.

There is an interesting fact about the 'sustain local culture' segment that 92 per cent of respondents from this segment are the Minangese. Most of them live in a rural area and work as farmers. They mentioned that when celebrating religious festivals it is necessary and indeed a cultured requirement to provide traditional foods like *rendang* (chuck beef in spicy brown gravy), *lontong sayur* (rice cake in vegetables soup) to serve and consume

during the festivals. They believed that the practice should be maintained and passed through generations to sustain the local culture. The majority of raw materials for traditional foods are from local foods. Table 8.23 presents the sensitivity analysis of segmentation for celebrating religious festivals. The details of consumer demography by segmentation are then presented in Table 8.24. Furthermore, the differences between respondents' characteristics are presented in Table 8.25.

Table 8.23: Identified motivation-based segmentation when celebrating religious festivals including the sensitivity analysis.

Segmentation (name of segmentation)	Ladders n=642		Persons involved n=533	
	n	**%**	**n**	**%**
Inexpensive-Can afford-Save money-Money for other thing-Happy (Save money)	222	35	169	32
Food quality-Good taste-Good health-Time for other thing-Happy (Health benefits)	110	17	102	19
Easy for preparation-Save time-Time for other thing-Fun and enjoyment (Easy for preparation)	81	13	82	15
Tradition-Sustain local culture (Sustain local culture)	64	10	63	12

Table 8.24: Characteristics of respondents by segmentation when celebrating religious festivals.

Respondent characteristics	Categories	Segmentations			
		Saving money	**Health benefits**	**Easy for preparation**	**Sustain local culture**
Sex	Female	95	92	94	82
Age (years old)	>60	8	5	5	7
	50< and ≤ 60	18	13	16	20
	40< and ≤50	27	44	35	30
	30< and ≤40	35	23	33	35
	≤30	10	15	11	8
Education	Primary School	24	25	14	27
	Junior High School	25	17	20	23
	Senior High School	34	38	40	30
	University degree	17	20	26	20
Occupation	Housewife	65	62	62	39
	Entrepreneur	17	24	18	16
	Employer	2	5	3	4
	Civil servant	8	5	13	7
	Farmer	9	2	1	32
	Others	1	2	3	0
Family income (million IDR)	≤2	65	52	54	61
	2< and ≤4	25	36	34	27
	4< and ≤6	6	5	8	7
	>6	4	7	4	5
Family number	0< and ≤2	7	6	5	7
	3< and ≤4	46	43	43	35
	5< and ≤6	34	39	35	43
	>6	13	12	17	15
Family number under 17 years old	0< and ≤2	83	82	75	53
	3< and ≤4	15	18	19	43
	≥5	2	0	6	4
Food expenditure/ week (000 IDR)	≤ 100	18	8	10	34
	100 < and ≤200	35	35	30	24
	200 < and ≤300	21	26	32	26
	300 < and ≤400	15	19	16	3
	>400	11	12	12	12

Table 8.25: Differences in consumer characteristics by segmentations for eating when celebrating religious festivals.

Segmentations	Differences in respondents' characteristics
Save money	This segment is dominated by respondents who have lower family income and have fewer children.
Health benefits	Respondents tend to have a middle family income, fewer children and age categories between 40 to 50 years old.
Easy for preparation	The respondents are likely to have a higher education level.
Sustain local culture	The involvement of men is higher in this segment. The proportion of working people is high particularly among farmers. They are likely to have fewer children.

8.3.5 Central messages for promotional strategies by segmentation

In general, there are seven common segments that are detected in four situational consumptions, namely: 'save money', 'health benefits', 'easy for preparation', 'controlling budget', 'taste matters', 'support local communities', and 'sustain local culture'. In this section, central messages for promotional strategies of local foods are summarised and presented as a Hierarchy Value Map (HVM). The central messages for each segment are presented in Tables 8.26 to 8.32.

Table 8.26. The central message of local foods for promotional strategy for 'save money' segment.

The Means-End Chain (MEC) output	The development of central messages for local food promotion
Happy	Saving the money will lead to happiness due to some needs and wants are fulfilled.
Money for other things Controlling budget Save money Can afford	Four characteristics are identified with regards to buying local foods. Local foods are associated with affordable food products, so some money can be saved and spent for other things. Controlling the budget also has a positive association with affordable products.
Inexpensive	Cheaper price has an association with local foods.

Table 8.27: The central message of local foods for promotional strategy for 'controlling budget' segment.

The Means-End Chain (MEC) output	The development of central messages for local food promotion
Happy Fun and enjoyment In life Sense of accomplishment Money for other things	Fulfilling the needs and wants has an association with sense of accomplishment and fun and enjoyment in life. These will lead to happiness.
Controlling budget Can afford	Three characteristics are identified with regards to buying local foods. Local foods are associated with affordable food products, so people can control their budget and spent some money for other things.
Inexpensive	Local foods have an association with cheaper price.

Table 8.28. The central message of local foods for promotional strategy for 'health benefits' segment.

The Means-End Chain (MEC) output	The development of central messages for local food promotion
Happy	Happiness is the main goal that can be reached by managing budget and having time doing a lot of things.
Money for other things	Eating local foods has a very positive relationship with good health.
Controlling bugjed Time for other things Save money	Being in a good health condition is correlated with the capacity doing other activities and saving health cost. So, by saving some money and managing budget can lead to fulfilling other needs.
Good health Good taste Healthy food Food quality	Three major attributes are identified that local foods have better quality, healthier and taste better.

Table 8.29. The central message of local foods for promotional strategy for 'easy for preparation' segment.

The Means-End Chain (MEC) output	The development of central messages for local food promotion
	Happiness, sense of accomplishment and fun and enjoyment in life can be achieved by saving time and money.
	Easy for preparation has positive benefits in terms of saving time and money and good for health. By saving time, more activities can be done. Being in a good health condition has benefits in terms of saving health costs and controlling the budget. Hence, some money can be used for other things. By saving money, more benefits will be obtained such as controlling the budget and fulfilling other needs.
	Preparing foods for the families is easier when using local foods.

Table 8.30. The central messages of local foods for promotional strategy for 'taste matters' segment.

The Means-End Chain (MEC) output	The development of central message for local food advertisement
Life satisfaction	Life will be satisfied when family eats a lot.
Time for other things ↑ Good health ↑	Enjoy the food has a consequence of a better health condition. So that people can have time to do more activities.
Family eats a lot	'Match the taste' has a strong relationship with family to eat a lot.
Good taste ↑	Local food is an enjoyable food and tastes better.
Enjoyable food	Match with taste

Local foods also match our taste.

Table 8.27. The central messages of local foods for promotional strategy for 'support local communities' segment.

The Means-End Chain (MEC) output	The development of central message for local food promotion
Happy ↑ Warm relationship with family and others ↑	Sharing the food knowledge has a positive association and a better relationship in a family or others so leads to happiness.
Knowledge of food ↑	One characteristic is emphasized with regard to more knowledge of food when purchasing local foods.
Support local communities	Support our local communities by purchasing local foods.

Table 8.32. The central messages of local foods for promotional strategy for 'sustain local culture' segment.

The Means-End Chain (MEC) output	The development of central message for local food promotion
Sustain local culture ↑ Tradition	By providing and consuming local foods means support and sustain local culture.
	Eating local food has a relationship to maintain the tradition with respect to traditional food or traditional celebration that local foods are a part of the celebration.

8.3.6 The comparison of segmentations in different consumption situations

There are three main motivations identified for four consumption situations, namely 'save money', 'health benefits' and 'easy for food preparation' using Means-End Chain (MEC) analysis in Chapter 6. In this chapter, network analysis approach is employed to interpret the Hierarchy Value Map (HVM) with respect to a concept of centrality index and the frequently a connection is mentioned by respondents. However, when employing the Decision Segmentation Analysis (DSA), a further MEC analysis for segmentation purposes, in Chapter 8 results seven varying segmentation-based motivations. 'Controlling budget', 'taste matters', 'support local communities', and 'sustain local culture' segments are additional motivations identified across consumption situations. The summary of motivation-segmentations for consumption situation is presented in Table 8.33.

Table 8.33: Summary of motivation-based segmentations for consumption situation.

Segments	Consumption situations			
	Everyday eating	**Eating at restaurant**	**Eating when travelling**	**Eating when celebrating religious festivals**
Save money		Yes	Yes	Yes
Health benefits	Yes	Yes	Yes	Yes
Controlling budget	Yes			
Easy for preparation	Yes			Yes
Taste matters		Yes		
Support local communities			Yes	
Sustain local culture				Yes

DSA is a powerful method to segment the market that is based on motivation, linking to MEC theory. The results of segmentation are more detail and reasonable as the HVMs are broken down into several particular segments. This approach is also very useful, with HVMs generating from a large number of respondents (in this study n=533). However, there is a serious need for software to help researchers to store and analyse segmentation data due to the time consuming and labour intensive nature of data analysis. Chapter 9 presents conclusions of this study and managerial implications.

Chapter 9: Conclusions and managerial implications

9.1 Introduction to the research questions and the findings of the study

This chapter examines the research questions developed in this study with respect to consumers' perceptions, motives and segmentations for local food markets and how they vary across ethnic backgrounds, urban and rural locations and consumption situations. This chapter also provides managerial implications.

9.1.1 What are the consumer perceptions of local foods?

Chapter 5 provides a detailed discussion of this research questions. In this chapter, 533 respondents in urban and rural locations representing three major ethnic groups are involved in the study in order to understand the consumer perceptions of local foods. When examining the sub-research question 'What are the consumer perceptions of local foods, rather than national and imported foods?', the three main characteristics of 'local' are identified that involve 'place produced', 'price' and 'quality'. Then respondents were asked how they perceive the meaning of 'place produced'. 'Village' is clearly mentioned by consumers to clarify the term 'place produced' with respect to a specific political boundary in Indonesia. Local foods are also believed by respondents to be cheaper and of better quality than 'national' and 'imported' foods. When the respondent asked what foods come from local sources, most respondents mentioned frequently rice as the 'local' food. However, corn and cassava can be used as alternative carbohydrate sources as these foods are also familiar with respondents. Although the level of consumer awareness of local food policy is quite high, there is a critical need for the Indonesian Government to give greater publicity to local food policy with a well delivered central message. The most effective way is through the mass media.

9.1.2 What are the primary motives of Indonesian consumers when purchasing their local foods?

The second objective of this study is to examine the main motives with respect to local foods that consumers want to achieve that are associated with the four situational aspects of consumption, namely: (a) everyday eating, (b) eating when travelling, (c) eating at restaurants, and (d) eating at festive religious events. The main motive that is identified in

all consumption situations is 'save money' followed by 'health benefits' and 'easy in food preparation'. The motive of saving money has an association with the attributes of 'inexpensive' and the consequences of 'can afford', 'money for other things', and 'controlling budget'. 'Fun and enjoyment', 'sense accomplishment', 'warm relationship with family and others' and 'happy' are the four personal outcomes that respondents want to achieve. 'Health benefits' and 'save time in preparation' are other motives that are identified with the four occasions.

When examining the similarities and differences in motivation with respect to the four occasions, the motivation of 'heath benefits' is considered by respondents to apply to the three consumption situations of: every day eating, eating at restaurants and eating when travelling. The motives of 'easy in food preparation' is also considered by respondents when making local food decisions for daily eating because of changes in people's lifestyles and food patterns.

This study also investigated the motives with respect to local foods that need to be achieved by urban and rural Javanese, Sundanese and Minangese residents when making decisions to buy local foods. When examining the motives associated with purchasing local foods in urban and rural areas, two main motives are identified: 'save money' and 'health benefits'. The motive of 'save money' motivation is stronger in both urban and rural Javanese areas and rural Sundanese areas than in the other areas. The motive of 'health benefits' is more important for urban Sundanese respondents and both urban and rural Minangese respondents. Further detail of the motives for local foods between different consumption situations and ethnic groups can be found in Chapters 6 and 7.

9.1.3 What are the segmentations involved in purchasing local foods?

Eight segments are identified for the four different situations consumption in urban and rural locations: 'save money', 'health benefits', 'controlling budget', 'fun and enjoyment in life', 'support local communities', 'easy in preparation', 'taste matters' and 'sustain local culture'. Each segment has different consumer characteristics with respect to urban and rural locations for the four different consumption situations. These differences are discussed in detail in Chapter 8.

Central messages for each segment have been advanced in detail in Chapter 8 with respect to urban and rural locations and the different consumption situations. These

proposed messages can be used in the development of promotional strategies with respect to the consumption of local foods.

9.2 Purchasing motives for local foods using Means-End Chain (MEC) analysis

It is proposed in this study that the MEC approach can be considered as an appropriate and powerful method for identifying what motives drive Indonesian consumers to purchase their local foods. The MEC approach provides linkages between attributes of a product and the consequences of product use in terms of consumption and personal values. The linkages between the attributes, consequences and values are demonstrated through the use of Hierarchical Value Maps (HVM) (Gutman, 1988). This study is also examines the motives expressed by respondents for purchasing local foods associated with different locations and ethnicity backgrounds as well as consumption situations. In the further analysis of segmentation purposes, Decision Segmentation Analysis is employed in order to identify the market segments with respect to motivation. Table 9.1 summarises the identified motivation-based segmentations with respect to ethnic background and location while Table 9.2 presents the identified motivation-based segmentations for different consumption situations.

Table 9.1: A summary of motivation-based segmentations with respect to ethnic backgrounds and locations.

Motivation-based segmentation	The Javanese		The Sundanese		The Minangese	
	Urban area	Rural area	Urban area	Rural area	Urban area	Rural area
Save money	Yes	Yes	Yes	Yes	Yes	Yes
Health benefits	Yes	Yes	Yes	Yes	Yes	Yes
Controlling budget		Yes				
Fun and enjoyment in life				Yes		Yes

Table 9.2: A summary of motivation-based segmentations with respect to consumption situations.

Segments	Consumption situations			
	Everyday eating	**Eating at restaurants**	**Eating when travelling**	**Eating when celebrating religious festivals**
Save money		Yes	Yes	Yes
Health benefits	Yes	Yes	Yes	Yes
Controlling budget	Yes			
Easy for preparation	Yes			Yes
Taste matters		Yes		
Support local communities			Yes	
Sustain local culture				Yes

The 'save money' and 'health benefits' segments are important in all urban and rural areas. In addition, the 'controlling budget' segment is considered to apply in rural Javanese areas, whereas the 'fun and enjoyment in life' segment is identified in rural Sundanese and Minangese areas.

There are seven segments based on motivation identified for different consumption situations. The 'health benefits' segment is important for all situation consumptions and the 'save money' segment is considered to apply for three consumption situations, namely eating at restaurant, eating when travelling and eating when celebrating religious festivals. The 'controlling budget' and 'easy for preparation' segments are important for everyday eating, whereas the segments of 'easy for preparation' and 'sustain local culture' are more important when celebrating religious festivals when compared to other consumption situations. The 'taste matters' segment is considered to apply to eating at a restaurant and the 'support local communities' segment is associated to eating when travelling.

It is suggested that the output of Means-End Chain (MEC) analysis can be used for the development of central messages for the promotion of local foods. Figure 9.1 shows how the MEC output can be employed as the input for the development of the promotional strategies.
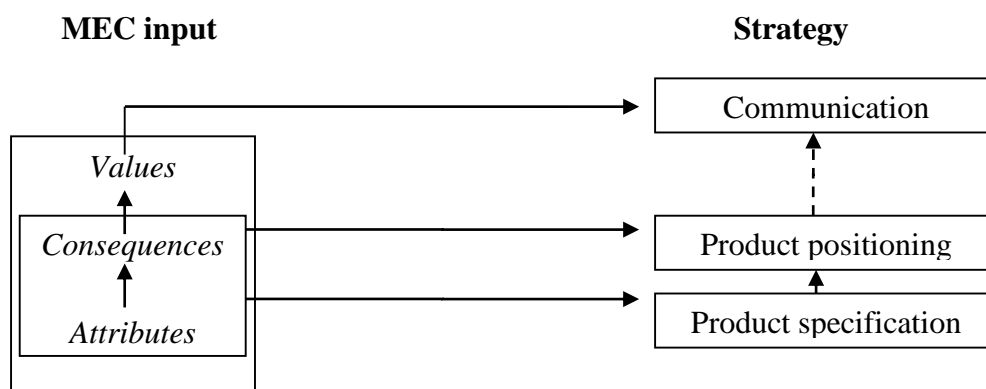
Figure 9.1: The use of MEC output as the input for development strategy (Valli et al. 2000, p. 93 with modification).

The attributes, consequences and values are employed in the development of strategies for the promotion of local foods. They are obtained from the MEC analysis with respect to the consumption situations as well as the ethnic backgrounds and locations. Tables 9.3 to 9.5 present the identified attributes, consequences and values that are involved in the development of local food promotion with respect to ethnic background, locations and consumption situations, respectively.

Table 9.3: The attributes, consequences and values involved in the development of strategies for the promotion strategy of local foods for different ethnic groups.

MEC output	The development strategies for local foods
Values	Happy, fun and enjoyment in life, sense of accomplishment
Consequences	Can afford, save money, money for other things, good health, time for other things, controlling budget
Attributes	Inexpensive, food quality

Table 9.4: The attributes, consequences and values involved in the development of strategies for the promotion of local foods in different consumption situations.

MEC output	The development strategies for local foods
Values	Happy, fun and enjoyment in life, sense of accomplishment, life satisfaction, warm relationship with family and others
Consequences	Can afford, save money, money for other things, good health, time for other things, controlling budget, family eats a lot, knowledge of foods, save time, sustain local culture
Attributes	Inexpensive, food quality, healthy food, enjoyable food, good taste, match with taste, support local communities, easy in preparation, tradition

In this section, 24 key messages for use in the promotion of local foods are listed:

1) Inexpensive

Local foods are associated with cheaper price. Consumers believe that local foods are cheaper than 'national' and 'imported' foods.

2) Food quality

Local foods are considered by consumers as natural and better quality products than 'national' or 'imported' foods. Freshness is the most important attribute for local foods identified by consumers.

3) Healthy foods

Local foods have good nutrition, are more hygienic and have less chemical pesticides used in their production.

4) Enjoyable food

Eating local food is believed to be more enjoyable.

5) Good taste

The taste of local foods is good, fresh and liked by Indonesian people.

6) Match with taste

The taste of local foods is attractive and appeals to the personal consumers and their family.

7) Support local communities

By purchasing local foods the local farmers are supported.

8) Easy for preparation

Local foods are easy to buy because (a) street vendors are readily available every day in the housing complexes, (b) traditional markets are common (c) shops are close to home making foods easy to prepare and cook. Furthermore, local foods are easy to prepare and cook as consumers are very familiar with them.

9) Tradition

Local foods are used as the raw material when serving traditional foods for daily meals or special events that support local customs and traditions.

10) Can afford

Local foods are more affordable products because of cheaper distribution and transportation costs, thus a cheaper sale price.

11) Save money

By consuming local foods, money can be saved because of lower access costs and less cost for health care due to in a good health condition.

12) Money for other things

By saving money on food, money can be used for other basic needs (food, water, clothes and shelter), school fees, charity, and travelling to Mecca, as well as unexpected needs.

13) Good health

Local foods are fresh and more nutritious and are good for health and child development.

14) Time for other things

Eating local foods is associated with saving time so that consumers have time to devote to other daily, family, religious and social activities.

15) Controlling budget

Consumers can more readily control their budget for daily food and other needs by purchasing local foods.

16) Family eats a lot

By eating local foods, more food is readily available because of cheaper price. The family also eats more when the taste is more familiar and liked.

17) Knowledge of foods

Eating local foods can be associated with a greater variety of cooked food as well as types of traditional food.

18) Save time and energy

Local foods can be readily bought in stops when consumers are tired and busy.

19) Sustain local culture and customs

By consuming local foods for daily meals or special events, consumers can sustain their local culture and customs.

20) Happy

Eating local foods can lead to greater happiness.

21) Fun and enjoyment in life

Eating local foods can lead to greater enjoyment of life in terms of having fewer problems and more fun and more sleep. Respondents also enjoy being Indonesian people that lead to a contented.

22) Sense of accomplishment

A greater 'sense of accomplishment' can be achieved when purchasing local foods, such as completing all housework and tasks, saving money for pension deposit fund, and sending children to school for a better future through education.

23) Life satisfaction

A greater sense of life satisfaction can be achieved when all tasks and homework have been done. The people are satisfied both mentally and physically.

24) Warm relationship with family and others

Warm relationship with family can be achieved through a greater and more harmonious life and greater enjoyment of time with family and friends.

9.3 The motivation of needs for local foods: the Maslow theory

The Maslow hierarchy can be used to understand the motives that drive individuals to attain a higher level of satisfaction in daily life. Maslow (1970) argued that a hierarchy could be formed of five levels from the lower-level of basic needs to a higher-level need starting from physiological, safety, belonging, prestige and self-actualisation needs. Schűtte and Ciarlante (1999) proposed an improved model of the Maslow hierarchy that were more suited to the Asian culture in which 'belonging', 'prestige' and 'self-actualisation' were broken down into 'admiration', 'affiliation' and 'status'. Figure 9.2 presents the Maslow hierarchy of needs that is used in order to understand the motives of consumer purchasing local foods.
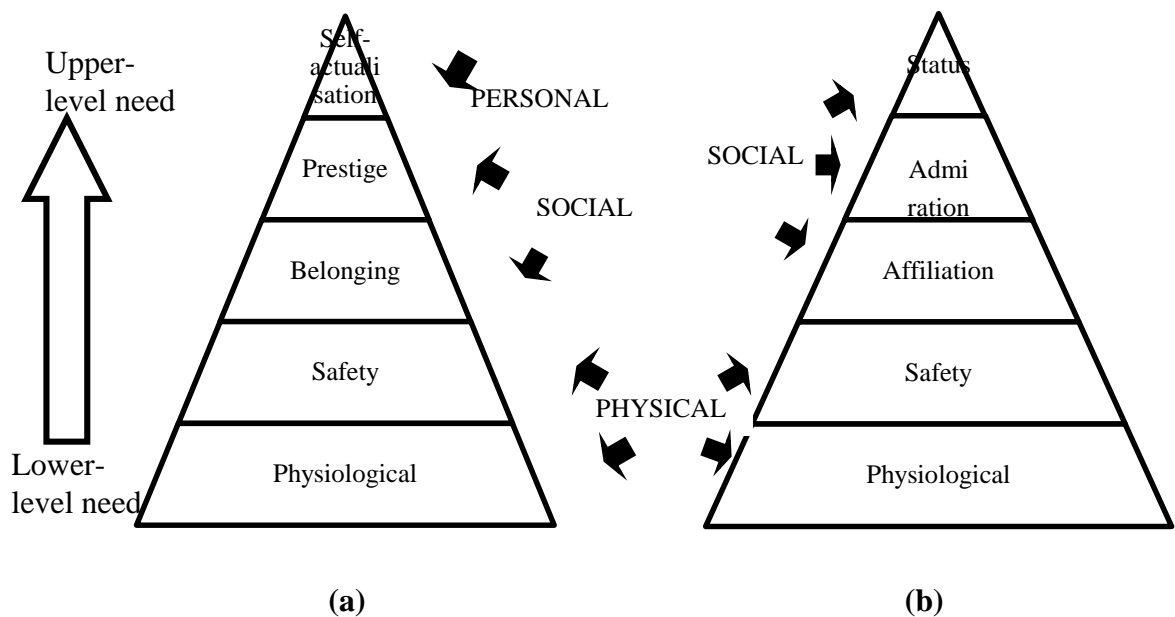
Figure 9.2: The original Maslow hierarchy of needs (a) and the Asian equivalent (b) (Shűtte and Ciarliante, 1998 p. 93).

In this study, the MEC analysis has been employed to reveal the purchasing motives of local foods. Physiological needs are the basic needs required for human living such as food and water. The most important motive in this study is to 'save money'. The 'save money' theme is strongly related to 'cheaper price'. 'Cheaper price' is the most important attribute when purchasing local foods particularly for a family with a lower family income and this is also confirmed by previous studies which argued that food choice was a complex function

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that included price and health benefits. Thus, the 'save money' motives can be linked to access food as the basic need of a cheaper price, particularly for a family with a lower family income. Once the physiological needs have been satisfied, a higher-level of need emerges namely 'safety' including health benefits as well as personal and financial security. 'Health benefits' is the major motive that is identified in this study. 'Controlling budget' is another motive that is identified in this study that is related to financial security. 'Fun and enjoyment in life' is a motive that also can be related to personal security as this motive is associated with: having no problems in life as well as a quiet and established life. When security needs are attained, consumers move to a higher-level of need 'affiliation' in order to be accepted into a social community. 'Support local communities' and 'sustain local culture' are two main motives related to personal acceptance in communities. 'Taste matters' may be linked to the need of affiliation of need in order to be accepted by friends, colleagues and family. Respondents consider taste when inviting their friends to the treat of eating at a restaurant. Consumers also consider 'save time for preparation' when purchasing local foods. This motivation emerges in order to fulfil the level of physiological, safety and affiliation needs. By saving time in preparation, respondents can use their time for doing other activities, such as working in order to fulfil the basic needs and saving some money to enhance personal financial security. By saving time in preparation, respondents can also spend their time in the social communities. Therefore, the need of affiliation can be achieved.

9.4 Managerial implications

It has been reported that the Means-End Chain (MEC) approach offers a quick and better understanding of the motives involved in purchasing local foods for consumer who come from a developing country background with at least a hundred different ethnic groups and with very different social and economic backgrounds when compared to consumers in developed countries. This study yields a set of codes of attributes, consequences and values. The set of codes is developed through a comprehensive study involving previous scholarly journals with respect to food choice themes using MEC approach as well as the pilot study with 52 respondents and the main study with 533 respondents. The set of codes of attributes, consequences and values can be used as the guide for future food studies, particularly in Indonesia and more generally in South East Asian countries.

The definition of 'local', as used by the Indonesian Government in order to support local food policy, has a broad meaning. This study has identified three salient characteristics of

'local', namely 'place produced', 'quality' and 'price'. A specific question is asked of the respondents in order to assess their understanding of the meaning of the term 'place produced'. It is clear that 'village' has a strong association with the term 'place produced'. Consequently, it is better for the Indonesian Government to have a database of potential local resources that is based on the village and to promote these products at a higher level such as the city or regency, province, island and country. The concept of 'one village one product movement' is also an alternative policy to uncover the potential resources that the villages have in order to strengthen the local economy and to ensure sustainable food consumption.

The Agricultural Department of Indonesia (2010) suggested a food diversification policy that was based on local resources. Although consumers were generally aware of this policy, the main themes of the policy were not well delivered which meant a need for further advertisement and a stronger education program. This study suggests, the need for local food promotion using the mass media through food cooking programs and a promotional program that explores the local food sources that are specific to each particular area within Indonesia. 'Cheaper price' and 'better quality' of local food are perceived by consumers in this study, when compared to 'national' or 'imported' food and these motives can be used as local food characteristics when promoting local foods. As the Indonesian Government has promoted local foods to diversify food consumption (in particular to reduce the dependence on rice), corn and cassava are possible alternative carbohydrate sources as they are familiar to respondents.

When motives are examined in urban and rural areas across the three major ethnic groups and different consumption situations, eight market segments that are based on motivations are identified: 'save money', 'health benefits', 'controlling budget', 'fun and enjoyment in life', 'support local communities', 'easy for preparation', taste is matter' and 'sustain local culture'. These motives can be used as the central messages to communicate local foods to the target markets. From these results, the Indonesian Government can emphasise all themes of motives as the advantages consumers can obtain when purchasing local foods.

Since the perceptions and motives associated with purchasing local foods are similar in urban and rural areas, it is highly likely that food demand in urban areas can be supplied and satisfied from local production. Therefore, harmonious urban-rural linkages can be strengthened and food-based communities in Indonesia can be further developed. This development is also possible in traditional rice consuming countries in South-east Asia.

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Chapter 10: Contributions to knowledge and limitations of the study

10.1 Contribution of the study

Theoretically speaking, this study has a twofold contribution. Firstly, the study provides a better understanding of consumers' preferences toward local foods in Indonesia in relation to consumers' perceptions, motivations, and segmentation. Although food diversification policies on local foods have been enacted since 1960s in Indonesia, there has been slow progress in the program. This may be because the concepts of consumers' perceptions, motives and market segmentation of local foods are not well understood. The consumers' perceptions of locally grown foods have been examined in this study. The local food definition has been elaborated to support the definition spelled out by the Indonesian Agricultural Department. A concept of geography in relation to where the foods come originally from falls within the remit of the local food definition. How consumers perceive prices and quality of local foods is also presented. The consumers' motives for purchasing local foods are also investigated. Drawing on these motives, consumers are then grouped into: 'save money', 'health benefits', 'controlling budget', 'fun and enjoyment in life', 'support local communities', 'easy in preparation', 'taste matters' and 'sustain local culture'. These findings provide the Government with empirical evidence in order to encourage Indonesians to consume more local foods. The second important contribution is the use of the application of the Means-End Chain approach to investigating food choices. Although this method has been applied widely in the food choices research, this study elaborates on the A-C-V (Attributes-Consequences-Values) variables specific to Indonesian consumers' perceptions on their local foods. The conceptualisation of A-C-V has a major implication for understanding food choices in Indonesia. The study provides empirical evidence that market segmentation, using Decision Segmentation Analysis (DSA), offers a powerful approach to investigating segment motivation, and this concurs with Means-End Chain analysis. It is also shown that the use of DSA leads to better results in identifying motives with a lower Centrality Index when a large number of respondents are involved, (n=533).

In terms of contributions to the formulation and development of government food policy, this study provides empirical information that can serve as the basis for identifying approaches so as to enhance local food consumption. In previous studies and policies of

local foods in Indonesia, the consumers' perceptions, motives and segmentation are unclearly explained. This study fills the gap and forms a solid foundation in further implementation of local foods informed by consumers' perceptions, motives, and segmentation.

10.2 Research limitations

It is generally known that Indonesia contains hundreds of ethnic groups of people living in a more than a thousand islands. Although investigating three major ethnic groups, the results of this study cannot be generalised to all Indonesian consumers.

The use of laddering techniques for MEC data collection has some limitations in practice. Among others, these include time-consuming and expensive interviews, artificial/pre-determined sets of answers, and researchers' biases. A selective sample can be used to represent a large-scale of sample to minimize fieldwork expenses. Providing specific training can equip interviewers with the craft of surmounting major problems such as researchers' biases, time-consuming interviews, and artificial sets of answers.

In spite of this, this study is successful in terms of identifying what constitutes 'local' rather than 'national' and 'imported' foods in this setting. In this context, a better understanding of consumer motivation toward local foods policy has been obtained. However, some important considerations involving the local foods motives of the wider population (Western Indonesia, within Indonesia), with larger samples and different groups (farmers or traders), involved with respect to specific food products need to be studied. Moreover, this study is also applicable to other Asian countries. However, a comprehensive study using appropriate, rigorous methodologies to help interpret voluminous data (from n =533) produce insightful, practical implications for effective local food policy implication.

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Exploring consumer motivations towards buying local fresh food products: A Means-End Chain approach

Abstract

Purpose - This article investigates how consumers from a developing country background such as Indonesia make local fresh food decisions for daily eating.

Design/methodology/approach - The use of the Means-End Chain (MEC) approach is utilized as a measure of attributes, consequences and values of locally produced products.

Findings – For Javanese ethnic group in Indonesia, 'save money' and 'health benefits' are identified views that motivate consumers purchasing their local foods.

Research limitation/implication - Although investigating the largest ethnic groups in Indonesia, the results of this study cannot be generalized to all Indonesian consumers and a larger sample needs to be studied to generalise the results to the wider population of Indonesia.

Practical implications - It is better for the Government to promote local food policies based on identified motivations of consumers. 'Save money' and 'health benefits' themes can be used as the central messages for the development of advertising strategies.

Originality/value - This study identifies the Javanese motivations for buying local foods and examines the motivation differences between rural and urban locations. This information is useful to the Government and individual businesses.

Keywords: consumer motivations, Indonesia, local foods, Means-End Chain analysis.

Paper type Research paper

1. Introduction

Support for the local-food movement as an alternative food system has been emerging in many countries around the world. Many countries have promoted local food systems as a part of sustainable food production such as Japan's *Chisan-Chiso Movement* which means 'locally produced, locally consumed' (Kimura and Nishiyama, 2008 p. 222), in the United States of America (USA): 'The Local Foods Purchase Policy' of Woodbury County, Iowa, (Flint, 2004), and 'The AgriMissouri Promotion Program' of South Missouri (Brown, 2003). The Indonesian Government has also promoted local food policy through the President Regulation Number 22 in 2009 with respect to food diversification that is based on local resources, aimed at encouraging Indonesian people to consume local foods to diversify their food consumption.

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The term 'local food' is used in order to 're-link food to place' as a shorter food transportation distance from farms to consumers in a particular area (Hall and Wilson, 2010). The term 'particular place' has flexibility in meaning for researchers concerned with physical distance (Onozaka et al., 2010; Trobe, 2001), or a specific region (Darby et al., 2008; Dunne et al., 2011; Gallons et al., 1997; Smithers et al., 2008). Arsil et al. (in press) have conducted and reported on a survey involving three major ethnic groups: Javanese, Sundanese and Minangese (n=533) to obtain consumers' perceptions of local foods. They found that 28 per cent of respondents perceived 'place produced' as the most important characteristic that denoted food as 'local' rather than as 'national' or imported' food. Feenstra (1997, p.28) emphasized that:

> "Local food systems are rooted in particular places, aim to be economically viable for farmers and consumers, use ecologically sound production and distribution practices and enhance social equity and democracy for all members of the community".

This was echoed by other researchers who believed that the capacity of local food systems could enhance both economic and social values among farms and farmer families as 'producers' and non-farm interests and consumers as 'users' especially in the local area (Hinrichs, 2000; Lyson, 2004). However, the local food program in Indonesia has focused completely on meeting the population's basic needs, increasing variety in consumable products and reducing the dependence on rice as the main cereal in use (The Indonesian Agricultural Department, 2010).

Indonesia is the fourth most populous country and the largest archipelagic state in the world. More than 218 million people resided in Indonesia in 2008 with approximately 59 percent concentrated in Java Island, making it the island with the most densely population in the world (Central Bureau of Statistics, 2010). The Javanese are the largest ethnic group in Indonesia and made up 41 per cent of the Indonesian population. Most of the people lived on Java Island but were also spread across the Indonesian regions. According to Molyneaux and Rosner (2004), food consumption in Indonesia from 1996 to 2002 increased by 7.5 per cent annually and this created an enormous food market.

Some weaknesses have been identified in the implementation of local food policy (The Indonesian Agricultural Department, 2010; The Indonesian Secretary of State, 2010). These

include top-down policy and the dominant role of the Government in practice. Therefore, the development of local food diversification was assessed by the Government to be less successful than might be expected. Despite renowned interest in the local food system, knowledge of the behaviour of local food consumers is lacking. The initial step to understand how consumers behave with respect to their local foods may be taken by asking the question "Why do people buy local foods?" Knowledge of the consumers' goals and their motivations will benefit the Government and encourage Indonesian people to consume more locally grown foods. This raises the research question: What motivates the Javanese people as the major ethnic group in Indonesia to purchase local fresh produce?

In order to investigate consumers' motivation of locally produced food, Means-End Chain Analysis (MEC) is employed, which is considered to be an effective approach for providing a link between the attributes (A) that the product have, the consequences (C) provided by attributes and personal values (V) reinforced by consequences which yield a Hierarchy Value Map (HVM) (Peter and Olson, 2005; Reynolds and Gutman, 1988). Prior studies have produced a set of A, C and V, that underpin MEC theory, which are linked with local foods (Lind, 2007; Roininen et al., 2006). However, these attributes may differ significantly with respect to the personal, social and cultural views and beliefs between European and Asian countries. Hence our study contributes to local food research, in terms of providing empirical knowledge of the motivation of Javanese consumers towards their local foods.

2. Literature Review

2.1 Local food system

A local food system is rooted in a particular location and aims at supporting economic benefit for farmers and consumers, providing environmental benefits through ecologically sound production and promoting social equity. The economic gain of local food systems is the economic viability for the small and medium-sized family farms, local food industries, local distributors and local retailers to support local economic growth. For farmers, transferring market risk and profit among them gives a larger portion of return for what they produce as there are fewer intermediate traders (Hall and Wilson, 2010). By this means,

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farmers can increase their cash flow and reassert farm control. Then, due to this locally-based effort, opportunities for the expansion of local agricultural businesses can occur. It also creates jobs, provides more food choices for consumers, enhances the local tax base and reinvests money into the local farms and the local food businesses (Welsh, 1997). Both producers and consumers obtain social advantages from local food systems. For producers, the social advantages are the contribution of supplying basic needs and foods for their community. For consumers, it is the knowledge of the authenticity and origin of the foods (Hinrichs, 2003; Morris and Buller, 2003). These benefits may not only promote an independent economy, but also enhance local food security (Baber and Frongillo, 2003; Feagan et al., 2004) and lead to sustainable food consumption.

Local food systems also promise environmental benefits in both direct and indirect forms. The direct benefit emerges from a shorter transportation distance. Therefore, it can reduce fuel consumed. Since locally grown products are likely to be consumed while fresh, this means reducing the needs of packaging, processing and refrigeration (Halweil, 2002; Norbeg-Hodge et al., 2002). The indirect benefit is that there is less waste causing from less shipping and packaging, thus reducing the carbon footprint and protecting the natural environment. Another advantage is that greater foodstuff variety is offered by local producers to meet the demand for food. Besides the advantages stated above, farm land preservation can be achieved by returning local biomass back to an agro ecosystem. By this means, local agricultural diversity can move towards a more sustainable agriculture (Halweil, 2002; Norbeg-Hodge et al., 2002).

There are some important factors driving consumers to buy or not to buy their local foods. The factors can be food quality, cost, lifestyle, and supporting local economic growth. In terms of food quality, local foods are believed to be a fresh product due to the fact that the food is grown near to the consumer and distributed with a shorter transportation distance. Therefore, the food is consumed usually immediately after harvest (Bruhn et al., 1992; Feagan et al., 2004; Wilkins, 1996). Some varieties of foods such as strawberries, plums and apples (Chambers et al., 2007) are believed to have better quality and taste (Baber and Frongillo, 2003). In terms of cost, the local food prices vary among regions, seasons and government subsidies. The government subsidies can provide price support, a tax break, and a supply of fertilizers. Local foods can be expensive if the foods are bought when they are

not readily available due to the season involved. In Ontario Canada, although 11 per cent of customers reported that the local foods were more expensive than supermarket prices, this was not the main barrier to them buying local foods (Feagan et al., 2004). Next, lifestyle is also a leading factor that motivates buyers to purchase their local foods, such as seeing friends, chatting and enjoying the atmosphere in the farmers' markets (Smithers et al., 2008). By being a part of this system, consumers believe that they can support their local farming families and the development of small businesses in order to enhance the local economy (Bruhn et al., 1992, Hinrichs, 2000).

2.2 The concept of means-end chain analysis

Means-end chain analysis is a qualitative method that provides the links between attributes, consequences and personal values in making buying decisions (Reynolds and Whitlark, 1995). This concept illustrates that consumers have three types of knowledge; knowledge of the attributes that the products have (A), knowledge of the consequences provided by the attributes (C) and knowledge of the values reinforced by the consequences (V) (Pieters et al., 1995). It is possible to link the A-C-V types of knowledge sequentially in a hierarchy called a ladder or Means-End Chain (MEC). By using this method, some reasons why consumers buy the particular products can be explored (Reynolds and Gutman, 1988).

The concept of personal psychology introduced by Kelly (1955) argued that people categorised their personal elements into a categorical hierarchy. This was then applied by Gutman (1982) in marketing research by defining the level of hierarchy into attributes, consequences and values. The basic tenet of this theory in marketing is that there is a chain of products, services and behaviour stored in memory and these are linked with the personal value concept. The means, products, service or certain attributes starts to establish a sequential link providing desired consequence at the end, while values drive buying behaviour as the fundamental sources of choice criteria (Reynolds and Gutman, 1988). Thus, the basic assumption of the means-end methodology, is also the tenet of the general marketing concept that products, services and behaviour are the main factors that drove consumer buying behavior (Kotler and Armstrong, 1991).

It has been argued that the means-end method consists of six aspects or levels of a hierarchy: concrete attributes, abstract attributes, functional consequences, psychosocial consequences, instrumental values and terminal values as described by many researchers (Gutman, 1982; Gutman, 1997; Mulvey et al., 1994; Olson and Reynolds, 2003, Reynolds and Gutman, 1988). In Figure 1, the six aspects or levels of the means-end chain are illustrated. They are categorized into two steps: product knowledge and self-knowledge (Mulvey et al., 1994).
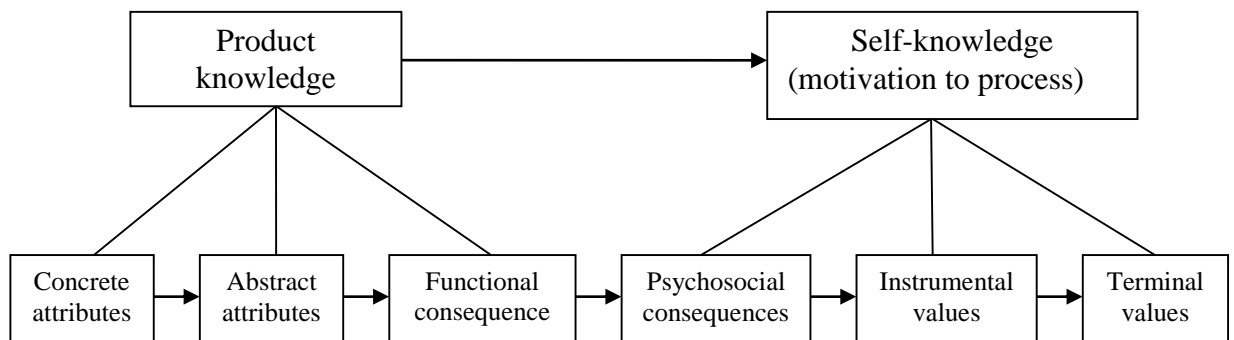
Figure 3: The six levels of the means-end hierarchy (Mulvey et al., 1994, p. 52).

Gutman (1997) gave an overview of the six level hierarchies. The concrete attributes were the tangible attributes such as colour and weight. They could be measured physically. The abstract attributes were defined as intangible characteristics such as "smell nice" or "pleasant feeling". They were measured subjectively. Peter and Olson (1995) explained that consumers could identify positive consequences that consisted of the functional and psychosocial consequences. Both of them were influences by the attributes. The functional consequences were the tangible outcomes of using a product, while the psychosocial consequences were psychosocial and social outcomes of the product used. Then, there were two types of values in the means-end chain. These were the instrumental values and the terminal values. The instrumental values reflected modes of conduct to achieve terminal values as perceived by others (Reynolds and Gutman, 1988). The end goal of the consumer was the terminal value related to the personal view of the consumer.

The level of consequence satisfaction influenced personal values. Consumers tended to purchase a product that could satisfy their values. This concept enabled an understanding

of the action and behaviour of consumers. In the means-end chain, the terminal value was the dominant role of consumer motivation in purchasing decisions (Mulvey et al., 1994; Vriens and Hofstede, 2000). The personal values emerged if consumers were able to link between the attributes the products had to positive consequences and to attain the desired values. A stronger A-C-V link identified by consumers meant that they were highly involved and complied with a means-end association. Therefore, it was necessary to understand the consumer's motivation to purchase local foods in order to ensure the appropriate policy of local food consumption.

3. Methods

3.1 Research questions

In order to understand the motivation of Javanese people to buy their locally grown foods, two research questions were formulated:

– What are the main motives for urban and rural Javanese residents when making decisions to buy local foods?

– What are the similarities and differences in motivation between residents in urban and rural areas?

3.2 Sampling

Multistage random sampling was used to select respondents who were food deciders (see Schiffman and Kanuk, 2010 p. 353 for a definition) as well as above 17 years old. A cluster sample of Javanese people was selected at the first stage, then rural and urban areas were selected that were based on the criteria identified by Statistics Indonesia (2005, p. 10).

Yogyakarta was chosen to represent the urban-based respondents of the Javanese people. This city is the capital city of the Yogyakarta special region province and is renowned as the heart centre of Javanese culture and art. The centre of Yogyakarta city is the *Kraton* (Sultan Palace) surrounded by a densely populated residential neighborhood. Yogyakarta is a heterogeneous city in terms of ethnicity in Indonesia, but the Javanese ethnic

group dominates the Yogyakarta population. The Javanese local language is widely used for daily communication. Based on the 2010 census, 388,088 people lived in Yogyakarta city.

Purbalingga regency is located in Central Java province, five hours driving by car from Yogyakarta city. Purbalingga regency is dominated by Javanese people and most of them live in rural areas. Farming is the predominant occupation of people living in Purbalingga regency, and farms occupy of 57 per cent of the regency (regionalinvestment. com).

Three sub-districts were then chosen randomly for each urban and rural area selected. Following that, a village was selected randomly for each district selected. Finally, a block was chosen randomly for each village selected. Interviews were conducted at each respondent's home with a response rate of 97 percent. A total of 184 local food consumers responded to the so-called, 'soft laddering' interviews. Every participant received a 1 AU$ gift for his or her contribution to this study.

A triadic sorting technique was employed by providing the respondents with pictures of three products: local, national and imported foods. Respondents were then asked to elicit the distinction. Typically the respondent answered with respect to one to five response categories. Then, laddering was generated by asking the question "Why is that important for you". All interviews were recorded and transcribed to *Bahasa Indonesia*.

Food deciders of Javanese households in both urban and rural areas were dominated by females who had attained the senior high school level of education and were from a married couple household. In terms of differences, the Javanese people who lived in rural areas had a lower family income and educational level compared to those living in urban areas (Table 1).

Table 1: Demographic survey of the Javanese respondents in urban and rural areas

Demographic characteristics (%)	Javanese ethnic group	
	Yogyakarta city (urban area)	Purbalingga regency (rural area)
Gender		
Female	93.7	97.8
Male	6.3	2.2
Family income (million IDR/month)*		
<2		
2 - <4	50.5	70.8
4 - <6	31.6	23.6
6 - <8	4.2	5.6
8 - <10	4.2	
10 - <12	1.1	
12 - <14	0	
14 - <16	0	
16 - <18	1.1	
18 - <20	5.3	
>20	1.1	
* 1 million IDR ≈ 103$US		
Educational level		
Primary school	13.7	39.2
Junior high school	19	29.2
Senior high school	46.3	24.7
University	18	7.7
Postgraduate	3.2	
Household types		
Single person	4.2	7.9
Married-couple family	64.2	73
Other family	29.5	19.1
Other non-family	2.1	0
Age (year old)		
<30	9.5	15.8
<40	25.3	38.9
<50	29.5	29.5
<60	20.0	11.6
<70	14.7	4.2
<80	1.1	0
Marital status		
Married	88.4	89.9
Separated	1.1	1.1
Widowed	5.3	6.7
Single	3.2	2.2
Divorced	2.1	0

4. Result and Analysis

The analysis consists of three steps: (a) content analysis procedure, (b) generating HVM, and (c) interpretation of HVM.

4.1 Content analysis procedure

One of the major issues emerging in the content analysis procedure is the coding of information. According to Kolbe (1991), a consensus in coding could be achieved by discussing the key theme of coding with trained judges or expert coders and reviewing the reports of previous studies. Judges needed to be trained as it would increase familiarity with both the content and the coding scheme, thereby improving the consistency of coding between two judges. In order to assess consistency, interjudge reliability, namely, the "ratio of coding agreements to the total number of coding decisions" was needed (Kassarjian 1977, p. 14). The author stated that researchers should treat reported data with suspicion when the interjudge reliability was less than 80 percent. If the reliability coefficient was above 85 percent, the analyst could accept the category involved and it was strong enough for scientific usage (Kassarjian 1977, p. 14). Interjudge reliability for this study that involved two judges was 87 percent.

4.2 Generating HVM

The Hierarchy Value Map (HVM) is a tree-like network that is an aggregate diagram of a cognitive structure that has three hierarchical levels: attributes, consequences and values. All interview data from the laddering procedure became the input into a Summary of Implication Matrix (SIM). The link of an attribute (A_j) to a consequence variable (C_k) is recorded in an A_jC_k cell in a SIM. The total frequency of the attributes-consequence (A-C) linkages is recorded in a tabulated SIM (Reynolds and Gutman, 1988). The same procedure is employed for the consequence-value (C-V) linkages.

An approach involving a comparison of the number of times each variable was mentioned as the end versus the origin of a relationship could be used to order the matrix (Bagozzi and Dabholkar, 2000; Pieters et al., 1995). The ratios or indexes of the numbers of times each variable was mentioned were referred to as 'in-degree' and 'out-degree' ratios or

indexes respectively. Pieters et al. (1995) suggested that at this stage, a concept of the 'abstractness ratio' could be used to examine which variables served as the means or ends in the attribute-consequence-value (A-C-V) hierarchies. The value of the abstractness ratio could range from 0 to 1. The higher the abstractness score indicated that the variable predominantly served as the end which represented the larger proportion of variable connections over other variables. Pieters et al. (1995) also suggested that centrality could be explained as how frequently a particular relationship was involved in linkages with other relationships. Pieters et al. (1995, p. 222) explained that

"The higher the centrality index, the larger the proportion of connections in the variables structure that run through the particular variable".

The next step in constructing a HVM is to identity a 'cut-off level'. A simple 'rule of thumb' for the cut-off level was suggested by Reynolds and Gutman (1988). They also suggested researchers might try multiple cut-off levels and then choose the HVM that led to interpretable and informative solutions. The key decision to construct the HVM was to determine which cells or linkages in the SIM should be portrayed in the HVM as the dominant relationships in the matrix. Pieters et al. (1995) suggested that the proportion of active links at or above the cut-off level and the proportion of active cells at or above the cut-off level could be an additional method to use in determining the cut-off level. Pieters et al. (1995, p. 238) explained:

> "In choosing a cut-off level, we tried to account for a large percentage of the total number of connections that subjects made between goals with a relatively small number of cells in the implication matrix."

Thus, a cut-off level represented between 60 to 70 percent of active links at or above the cut-off level (Reynold and Gutman, 1988; Pieters et al, 1995; and Bagozzi and Dabholkar, 1994) and was considered adequately representative for choosing the cut-off level.

4.2.1 The motivation of purchasing local food for urban Javanese people

Table 2 presents the abstractness ratio and centrality index for urban-based respondent of Javanese people.

Table 2: The Abstractness Ratio (AR) and the Centrality Index (CI) for Javanese Ethnic groups in urban area.

Attributes			Consequences			Values		
Content codes	AR	CI	Content Codes	AR	CI	Content Codes	AR	CI
Healthy food	0	0.01	Enjoyable food	0.31	0.01	Sense of accomplishment	0.83	0.04
Inexpensive	0.02	0.11	Can afford	0.32	0.04	Warm relationship with family and others	0.87	0.02
Food quality	0.05	0.04	Practical implication of food	0.43	0.01	Life satisfaction	0.96	0.03
Easy for preparation and cooking	0.06	0.08	Family eats a lot	0.44	0.02	Fun and enjoyment of life	0.97	0.03
Good taste	0.12	0.02	Save time and energy	0.44	0.02	Health is the most valuable thing in life	1	0.01
Support for local community	0.20	0.01	Save money	0.49	0.11	Happy	1	0.12
Options	0.26	0.02	Controlling budget	0.57	0.03			
			Good health	0.57	0.08			
			Money for other things	0.6	0.09			
			Earn money	0.6	0.01			
			Time for other things	0.67	0.03			
			Social interaction	0.75	0.01			

The important findings are summarized below:

–   In terms of the topic of centrality index, 'happiness' (0.12) is predominant, and 'save money' (0.11) and 'inexpensive' (0.11) follow.

–   Inexpensive is more tangible attribute because of its lower abstractness ratio, whereas attributes involving 'food quality', 'healthy food', 'easy for preparation and cooking', 'good taste', 'support for local communities', and 'options' are categorized as intangible attributes or attributes that cannot be measured directly.

–   'Inexpensive' and 'easy for preparation and cooking' are predominant attributes.

–   'Save money' (0.11) is the most important consequence, and 'money for other things' (0.09) and 'good health' (0.08) follow respectively.

In order to construct the HVM, the cut-off levels from 3 to 5 were used. Then, a cut-off level of 5 was selected. At this level, the cross lines were minimum and easy to interpret. At this level, there were 17 content codes accounting for 55.6 per cent active links and representing 15 per cent of active cells. Figures 2 and 3 depict the HVM for Javanese urban people when making a decision for local foods.
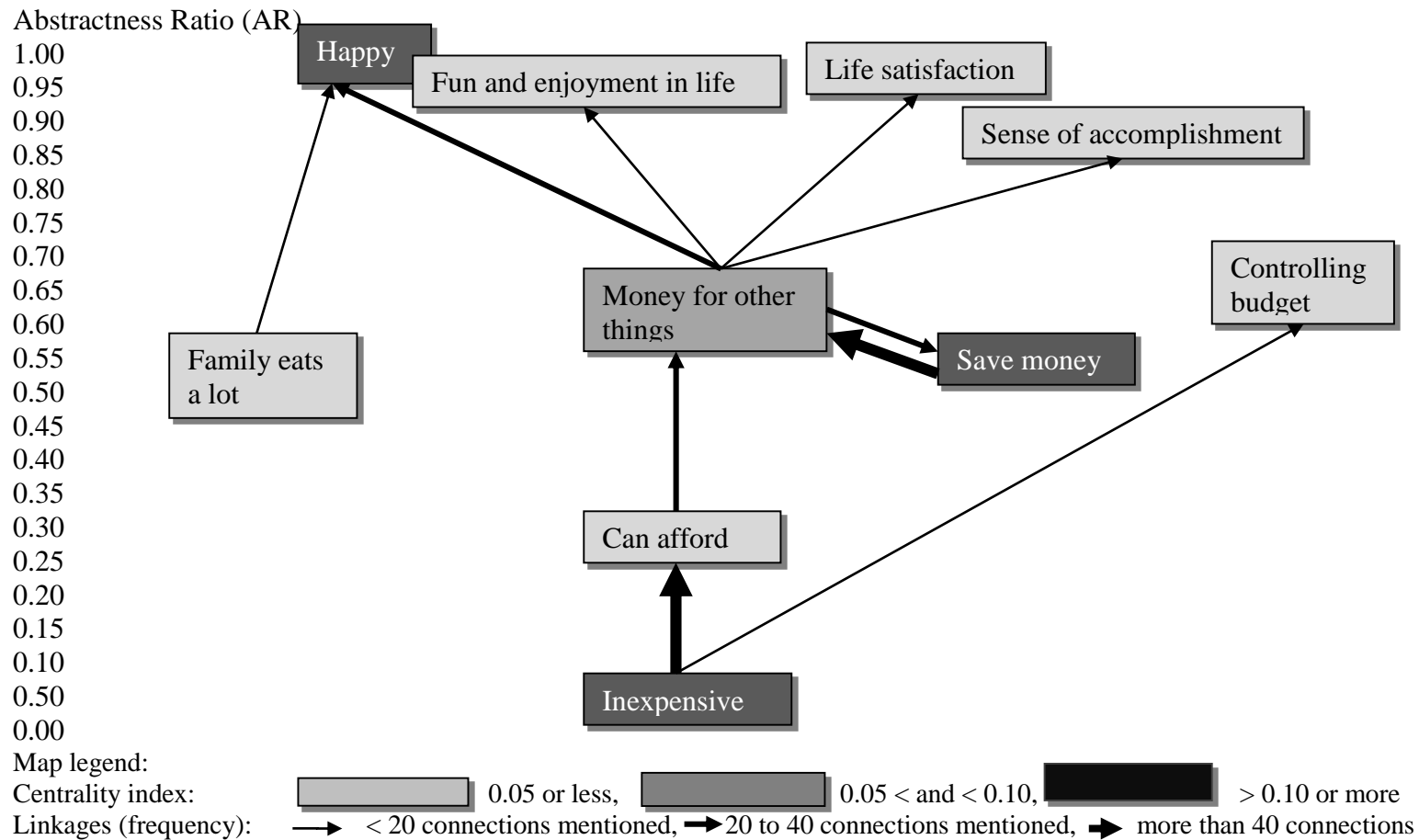
Figure 4: HVM of everyday eating local foods for Javanese people who live in urban areas at cut-off 5.

Abstractness Ratio (AR)

1.00
0.95 **Happy**
0.90
0.85 Health is the most
0.80 important thing in
0.75 life
0.70 Sense of accomplishment
0.65
0.60 Time for
0.55 other things
0.50
0.45 Good health
0.40
0.35 Save time
0.30 and energy
0.25
0.20 Good taste
0.15
0.10
0.50 Food quality   Healthy food
0.00

Map legend:
Centrality index: 0.05 or less,   0.05 < and < 0.10,   > 0.10 or more
Linkages (frequency): ⟶ < 20 connections mentioned, ➤ 20 to 40 connections mentioned, ▶ more than 40 connections
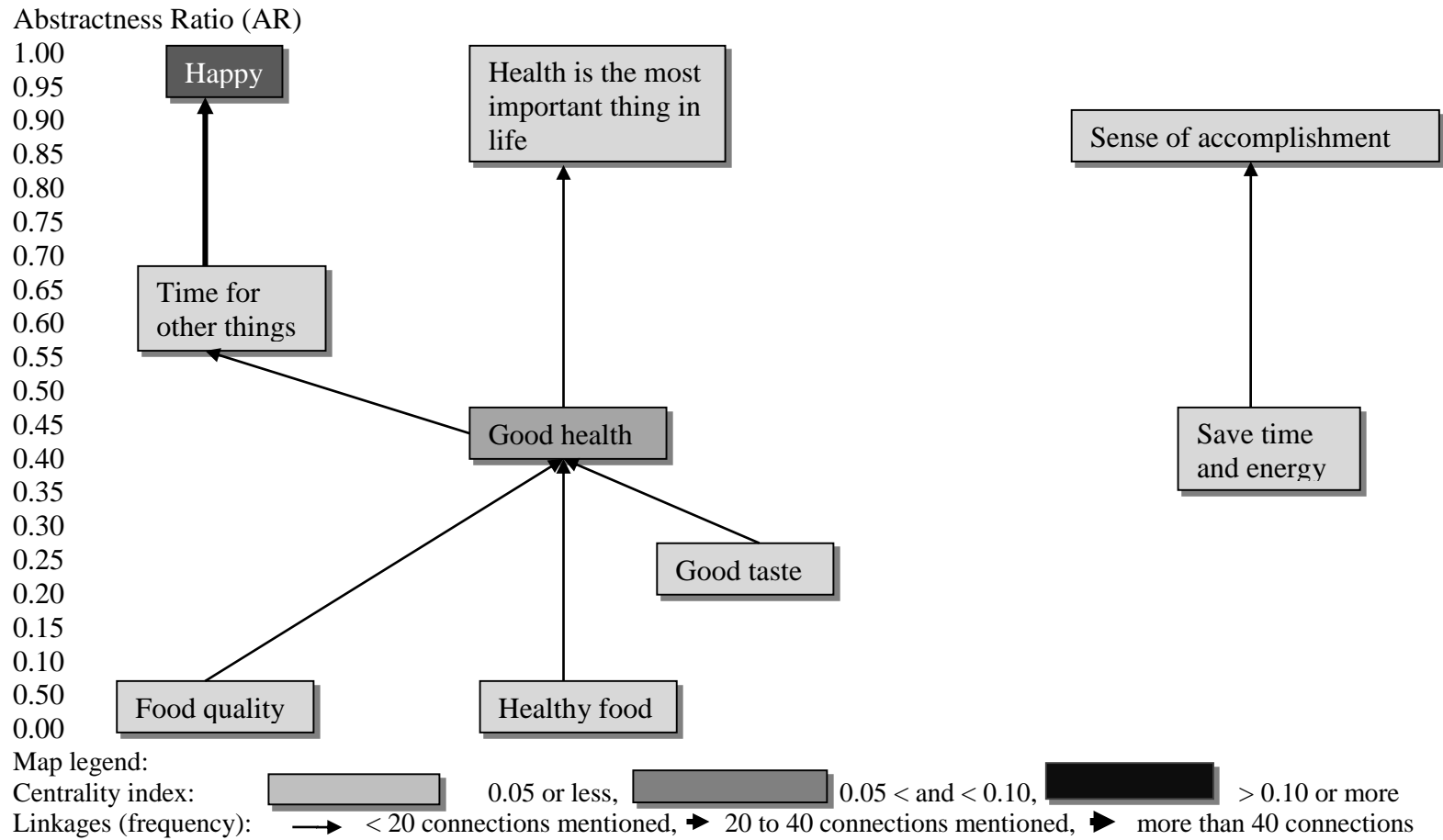**Figure 5: HVM of everyday eating local foods for Javanese people who live in urban areas at cut-off 5.**

When examining the final hierarchy from the viewpoint of the centrality index and the number of times the linkages are mentioned by consumers, two main themes are detected:

– **Saving your money for daily eating by purchasing local foods.**

Pathway: Inexpensive→ can afford→ money for other things ⇔ save money→ happy

– **Health benefits of local foods**

Pathway: Food quality→ good health→ time for other things→ happy

The results confirm previous research that food choice is primarily considered price and health benefit (Vickers 1993), particularly when respondents have a lower family income (Ostrom 2006). 'Happy feeling' is strongly valued for consumers to achieve as the end goal for this situation.

4.2.2 The motivation for purchasing local food of rural Javanese people

By employing the MEC procedure, Table 3 presents the attributes, consequences and values of rural consumers when making decision for local foods.

Table 3: The Abstractness Score (AS) and Centrality Index (CI) for rural Javanese people.
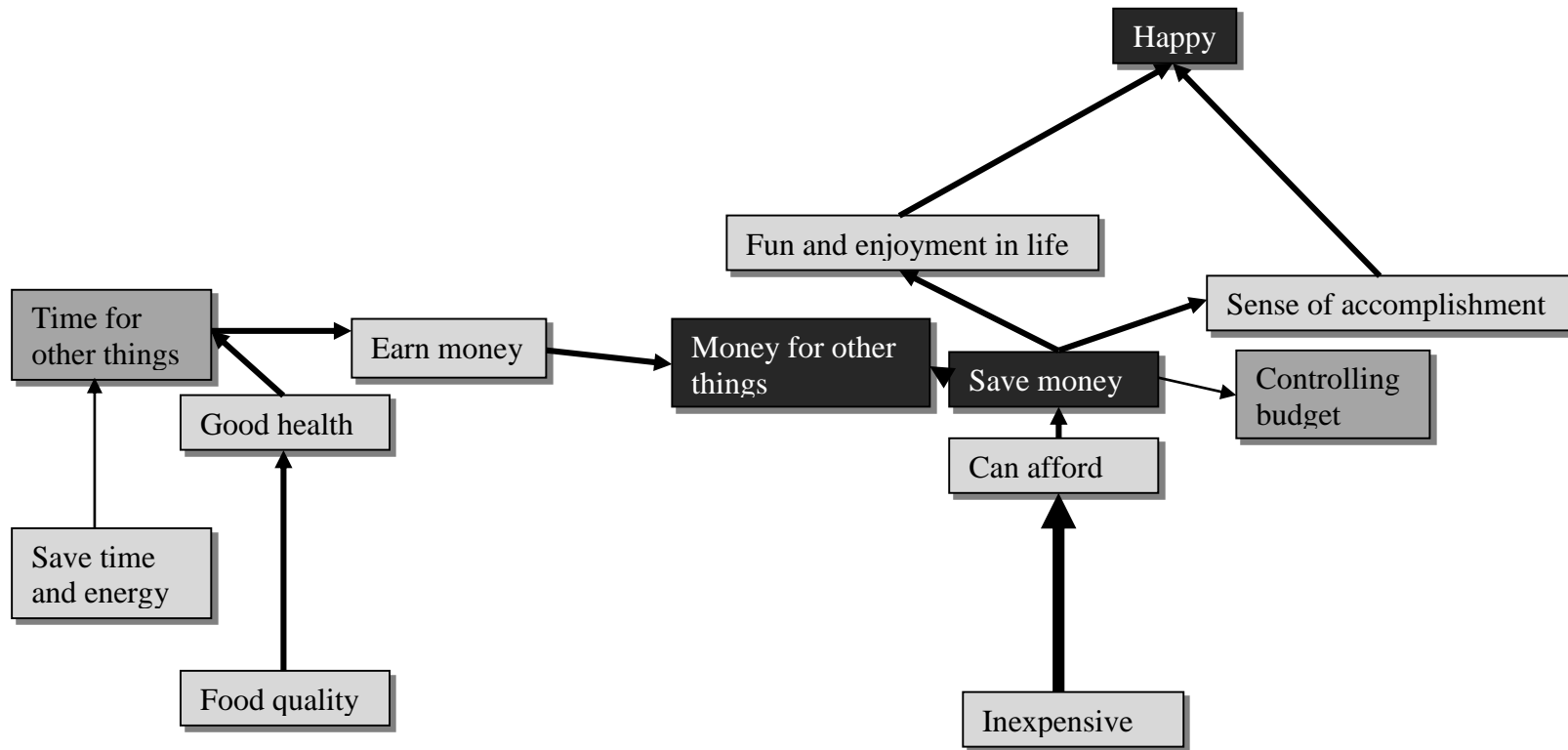
Attributes			Consequences			Values		
Content Codes	**AR**	**CI**	**Content Codes**	**AR**	**CI**	**Content Codes**	**AR**	**CI**
Good taste	0	0.01	Save time and energy	0.18	0.03	Sense of accomplishment	0.5	0.03
Healthy food	0	0.01	Can afford	0.35	0.04	Warm relationship with family and others	0.64	0.01
Options	0	0.01	Good health	0.44	0.10	Fun and enjoyment of life	0.67	0.04
Support local communities	0	0.01	Save money	0.48	0.12	Thank God	0.8	0.01
Inexpensive	0.04	0.07	Controlling budget	0.5	0.05	Happy	0.98	0.14
Food quality	0.09	0.03	Earn Money	0.5	0.03			
			Time for other things	0.5	0.09			
			Money for other things	0.52	0.15			

Rural consumers have a lower level of involvement with local foods because they have a simple means-end structure with less attributes, consequences and values compared to urban consumers. However, 'happy feeling' and financial issues (i.e. 'save money' and 'money for other things') are predominant variables both for urban and rural residents.

In determining the cut-off level, a trial and error cut-off levels have been employed to obtain the best HVM. A cut-off value of 8 is selected that consists of 14 content codes and accounts for 67 per cent linkages at or above this cut-off level. The HVM can be seen in Figure 4.

Abstractness Ratio (AR)

1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00

Happy

Fun and enjoyment in life

Sense of accomplishment

Time for other things

Earn money

Money for other things

Save money

Controlling budget

Good health

Can afford

Save time and energy

Food quality

Inexpensive

Map legend:
Centrality index: 0.05 or less,   0.05< and < 0.10,   > 0.10 or more
Linkages (frequency):   ⟶ < 20 connections mentioned, ⟶ 20 to 40 connections mentioned, ⟶ more than 40 connections
Figure 6: HVM of everyday eating local foods for Javanese who live in rural areas at cut-off 8.

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The main pathways for rural consumer are strongly lead to 'inexpensive' and 'save money' variables. A 'health benefit' theme is also considered by rural consumers when purchasing local foods.

- **Saving your money by purchasing local foods**

Pathways:

Inexpensive→ can afford→ save money→ money for other things

Inexpensive→ can afford→ save money→ controlling budget

Inexpensive → can afford→ save money→ fun and enjoyment in life→ happy

Inexpensive→ can afford→ save money→ sense of accomplishment→ happy

- **Health benefits from local foods**

Pathway: Food quality→ good health→ time for other things→ earn money→money for other thing

4.3 Discussion: The comparison of motivations for purchasing local foods between Javanese consumers in rural and urban areas

An interesting fact about Javanese people with regard to their consumption is that generally they prefer to consume vegetable products rather than meat products for daily eating. Astuti et al. (2000) noted that tempeh, traditional fermented food from soybeans, was originally used and became a daily food pattern for Javanese people particularly those who lived in central Java. Furthermore, they stated that Javanese people who lived in rural and urban areas consumed tempeh as a source of protein rather than meat and chicken eggs, with the values 10.0, 3.15 and 1.25 percent, respectively. Tempeh is served as a side dish, and fried, steamed, boiled or roasted. In their paper, Astuti et al. (2000) emphasized that although tempeh was consumed by consumers from different socioeconomic status levels and ages, this food was categorized as a food with a low social value and was only served at home and by stall-food vendors. However, this food pattern may change when people move from rural to urban areas as there is a strong relationship between household income and price affecting food consumption. People in urban areas may change their food demand pattern for certain reasons: (a) people have a wider food choice including a dietary pattern from a foreign culture that is available in urban markets; (b) an urban lifestyle demands a

premium food at cheaper price that is quicker and convenient to prepare; (c) urban people required food with lower calories than rural people because of their occupations (Huang and Bouis, 1996).

It can be seen from Table 4 that Javanese consumers both in urban and rural areas have the same motivation when purchasing local foods namely, 'saving your money' and 'health benefits'. However, in terms of centrality index, urban residents also consider the 'easy for preparation and cooking' attribute of local foods. Thus, urban lifestyle influences the consideration as people need to manage their time well to deal with their daily activities.

Table 4: Similarities and differences in terms of centrality and identified motivation of Javanese consumers in rural and urban locations.

Locations	Centrality Index	Identified Motivation	
		Saving your money	Health benefits
Urban areas	Happy (0.12) Save money (0.11) Inexpensive (0.11) Money for other things (0.09) Good health (0.08) Easy for preparation and cooking (0.08)	Yes	Yes
Rural areas	Happy (0.14) Money for other things (0.14) Save money (0.12) Good health (0.10) Inexpensive (0.07) Controlling budget (0.05)	Yes	Yes

5. Conclusions

The two main consumer motivations that are detected in this study for the Javanese people in urban and rural areas are: (a) 'saving your money' and (b) 'health benefits'. Saving your many is an identified motivation that is stronger in a rural area because of the cheaper price of local foods. An 'ease of preparation and cooking' variable is also an important attribute for urban residents because of their lifestyle. Therefore, it is beneficial for the

Indonesian Government to use both motivational themes when promoting local foods particularly in Yogyakarta special province and Central Java province, and this is likely to apply to other provinces in Indonesia.

This study has limitations in that only Javanese people are involved in the study. Consequently, there is need to investigate a wider population of Indonesian people involving different ethnic groups, a larger sample and different staple foods between western and eastern parts of Indonesia in order to obtain a more representative and comprehensive finding for the Indonesian population. This study is also applicable to specific food products.

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