The Effects of Modern Food Retail Development on Consumers, Producers, Wholesalers and Traditional Retailers: The Case of West Java

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The Effects of Modern Food Retail Development on Consumers, Producers, Wholesalers and Traditional Retailers: The Case of West Java

De invloed van ontwikkelingen in de moderne detailhandel in levensmiddelen op consumenten, producenten, groothandelaren en traditionele detailhandelaren: het geval van West Java

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To My Mum and Dad

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Acronyms

AJBR	Asian Journal Business Research
BPS	Biro Pusat Statistik
DKI	Daerah Khusus Istimewa
FDI	Foreign Direct Investment
FMCG	Fast Moving Consumer Goods
GDP	Gross Domestic Product
HRI	Hotel, Restaurant and Institution
IDR	Indonesian Rupiah
IMF	International Monetary Fund
KPPU	Komisi Pengawas Perlindungan Usaha (Committee for Supervisory of Business Competition)
LOI	Letter of Intent
NFP	Netherlands Fellowship Programme
Nuffic	Netherlands Organization for International Cooperation in Higher Education
PP	Presidential Decree
SPSS	Statistical Package for the Social Sciences
UNPAR	Universitas Katolik Parahyangan
UI	Universitas Indonesia
WHO	World Health Organisation

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Abstract

In developing countries, retail development was never considered as a strategy to boost the economy until the Asian financial crisis happened in 1998, which made the countries could not rely on their exports anymore. Indonesia experienced a difficult economic period and it became worse due to the political crisis, which happened in the same time with the financial crisis. One of the economic recovery programs was retail liberalisation, which consequently opened the domestic market for foreign retailers. Meanwhile, rapid urbanisation and huge investments in real estate have made retail sector, particularly modern food retail in Indonesia to grow bigger, it challenged local retailers to develop. The development of super- and hypermarkets in Indonesia in the last decade indicated that retail sector development was used as a strategy to encourage the economy. However, the development brings controversies regarding its impact on traditional retailers, environment and local economy.

This study has an objective to investigate whether the development of super- and hypermarkets as part of a strategy to boost the local economy benefits actors in the value chain, i.e. agricultural producers, local food processors and wholesalers. West Java was chosen as the case in this study considering that this province, is the centre of horticulture production, which experienced rapid development of modern food retail in the last decade.

Since the ongoing debates on pros and cons of the impacts of super- and hypermarkets development, there were many research investigations the impacts of development on many contexts, but this study is distinctive by focussing on investigating the impacts of super- and hypermarkets development on the local economy, which is measured by producers, processors and wholesalers profit. Two studies on consumers and traditional retailers were carried out for this study.

Quantitative analysis, using regression analysis to test the hypotheses on agricultural producers, local food processors, wholesalers and local economy. McNemar test, Chi-Square test, and Pearson Correlation test, was conducted to test the hypotheses on consumers and traditional retailers. Survey using questionnaires was the main tool of data collection, while interviews also performed to super- and hypermarkets managers, producers, processors and wholesalers to gain more insights for the study.

Using West Java as the case, super- and hypermarkets development have shifted consumers store preferences from traditional retailers to super- and hypermarkets due to product availability, quality, price and assortments. Furthermore, sales and number of buyer in traditional retailers decreased after the entry of super- and hypermarkets in their areas and traditional markets experienced the worst impact of modern retail development. Focussing on fresh goods category includes fruit, vegetables, local dairy products and processed meat, this study indicates that all producers, processors

and wholesalers benefit from the development of super- and hypermarkets. Moreover, super- and hypermarkets development contributes to the local economy.

This study has theoretical and practical contributions and recommendations to the field of retail development. Using value chain as the key concept, the study enriches the literatures on retail development, particularly the impacts of retail development on the local economy, which can be measured by analysing the contributions on producers, processors and wholesalers despite measuring the contributions on labour, productivity and tax revenues. In particular, this study introduces and presents a thorough analysis and information on retail development in developing countries, which have different environmental and cultural challenges.

The practical contributions and recommendations of this study are presented for the modern retailers, traditional retailers, suppliers and government. Environmental issues is the main concern for consumers that need to be considered by modern retailers as the impacts of the development, while suppliers concern for the benefits due to the development of modern retail. Small suppliers have to upgrade their knowledge and skills in order to meet the requirements of modern retail procurement systems. Building a farmers' group is one of the proposed recommendations in this study to upgrade small suppliers.

Realising that modern retail start not to use traditional wholesalers due to the inefficiency of traditional wholesalers' working systems, this type of wholesaler have to modernise their systems to achieve efficiency, which has an impact on the final prices of products, otherwise they can not compete with the specialised and dedicated wholesalers or large commercial farmers.

The development of modern retail does not have an objective to eliminate the traditional retailers, but in fact, traditional retailers can not compete with modern retailers due to a lack of resources. As part of the local economy, traditional retailers have to take advantages from the development of modern retail. To compete with modern retailers, first of all, traditional retailers have to repositoning themselves by providing a clean and convenience store environment for their customers. Then, they have to offer an attractive product displays in their stores and provide a good quality products.

Finally, the study contributes to the government, particularly local government by providing valuable information regarding the impacts of modern retail development on the local economy. Tax revenue and employment are not only the main benefits for the local economy due to the development of super- and hypermarkets in particular areas. The development of modern retail should also benefits consumers, suppliers and other retailers, furthermore it upgrades the standard of living. Government should be consistent with the implementation of regulations, therefore the development benefit all actors in the value chain of food retail sector.

De invloed van ontwikkelingen in de moderne detailhandel in levensmiddelen op consumenten, producenten, groothandelaren en traditionele detailhandelaren: het geval van West Java

Samenvatting

In ontwikkelingslanden is de ontwikkeling van de detailhandel nooit serieus overwogen als een strategie om de economie te versterken, totdat de Aziatische financiële crisis toesloeg in 1998, waardoor deze landen niet meer op hun exportmogelijkheden konden terugvallen. Indonesië maakte moeilijke economische tijden door, verder verergerd door de politieke crisis die samenviel met de economische crisis. Een van de economische herstelprogramma's bestond uit het liberaliseren van de kleinhandel, wat de deuren van de binnenlandse markt opende voor de buitenlandse detail- of tussenhandel. Tegelijkertijd hebben de snelle verstedelijking en enorme investeringen in onroerend goed (real estate) de sector van de detailhandel en in het bijzonder die van de moderne voedsel (levensmiddelen) kleinhandel in Indonesië doen toenemen, en deze ontwikkeling betekent een uitdaging voor de plaatselijke kleinhandel om mee te groeien. De ontwikkeling van de super- en hypermarkten in Indonesië over de afgelopen tien jaar gaf al aan dat de ontwikkeling van de detailhandelsector gebruikt werd als een strategie om de economie aan te sporen. Deze ontwikkeling heeft daarentegen wel controverses opgeleverd wat betreft de uitwerking ervan op de traditionele detailhandel, het milieu en de plaatselijke economie.

Het doel van deze studie is te onderzoeken of de ontwikkeling van genoemde hyper- en supermarkten bijdraagt aan de plaatselijke economie door de bijdrage van agriculturele producenten, plaatselijke voedselverwerkers en grossiers. De keuze is gevallen op West Java als case studie, met als overweging dat deze provincie het middelpunt vormt van de tuinbouw productie die de snelle ontwikkeling van de moderne detailhandel in voedsel (levensmiddelen) heeft ervaren in het afgelopen decennium.

Sinds de aanhoudende discussies over de voor- en nadelen van het effect op de ontwikkeling van de super- en hypermarkten zijn gehouden is er veel onderzoek gedaan naar de uitwerking van deze ontwikkeling op vele conteksten, maar deze studie onderscheidt zich door zich te richten op onderzoek naar de specifieke uitwerking van genoemde ontwikkeling op de plaatselijke economie, die wordt afgemeten aan de winst gemaakt door de producenten, verwerkers en groothandelaren. Twee aparte studies over consumenten en traditionele detailhandelaren zijn verricht in het kader van dit onderzoek.

Een kwantitatieve analyse is gemaakt met behulp van *Regression Analysis* om de hypotheses omtrent agrarische producenten, plaatselijke voedsel (levensmiddelen) verwerkers, groothandelaren en de plaatselijke economie te testen. De zogenaamde *McNemar Test*, de *Chi-Square Test* en de *Pearson Correlation Test* werden uitgevoerd om de veronderstellingen betreffende consumenten en traditionele kleinhandelaren te testen. Het voornaamste middel om gegevens te verzamelen bestond uit een enquête met gebruikmaking van vragenlijsten, aangevuld met vraaggesprekken gehouden met bedrijfsleiders van super- en hypermarkten, producenten, verwerkers en grossiers om nader inzicht te verkrijgen in het kader van dit onderzoek.

In het geval van West Java als onderwerp van deze case studie valt er een verschuiving te constateren in de ontwikkeling van super- en hypermarkten, namelijk in de tendens van winkelkeuze die oorspronkelijk op de traditionele detailhandel viel maar die tegenwoordig meer op de super- en hypermarkten valt vanwege de verkrijgbaarheid, kwaliteit, prijs en assortiment van de producten. Bovendien zijn de verkoopcijfers en het kopersaantal van de traditionele detailhandel gedaald sinds de komst van deze super- en hypermarkten in de omgeving en sinds de traditionele markten de zwaarste klappen hebben moeten verduren van de moderne ontwikkelingen in de detailhandel. Gericht op de categorie van verse producten (levensmiddelen) met inbegrip van fruit, groenten, plaatselijke zuivelproducten en verwerkte vleeswaren, geeft deze studie aan dat alle producenten, verwerkers en groothandelaren voordeel hebben bij de groei van de super- en hypermarkten. Er kan zelfs worden gesteld dat deze ontwikkeling een bijdrage levert aan de plaatselijke economie.

Dit onderzoek heeft zowel theoretische als practische bijdragen en aanbevelingen te bieden op het gebied van de detailhandelontwikkeling. Met behulp van een waardeketen (value chain) als sleutelbegrip betekent deze studie een verrijking van de vakliteratuur betreffende de ontwikkeling van de detailhandel, in het bijzonder de uitwerking ervan op de plaatselijke economie, die kan worden afgemeten door middel van het analyseren van de bijdrage afkomstig van producenten, verwerkers en groothandelaren, en van de bijdrage afkomstig van geleverde arbeid, productiviteit en belastinginkomsten. Deze studie introduceert en biedt een grondige analyse en informatie over de ontwikkeling van de detailhandel in ontwikkelingslanden, die nu eenmaal het hoofd moeten bieden aan verschillende uitdagingen op het gebied van milieu en cultuur.

De practische bijdragen en aanbevelingen van dit onderzoek worden hierbij aangeboden aan de moderne kleinhandelaren, de traditionele leveranciers, en aan de regering. Milieuproblemen zijn van het grootste belang voor de consument en deze problemen dienen te worden beschouwd door de moderne kleinhandel als uitwerking van deze ontwikkeling, terwijl de leveranciers zich meer interesseren voor voordelen die de groei van de moderne kleinhandel brengt. De kleinschalige leveranciers dienen hun kennis en vaardigheden bij te spijkeren om aan de eisen van het moderne inkoopsysteem te voldoen. Een van de voorgestelde aanbevelingen van deze studie is om landbouwerscollectieven te vormen om deze kleine leveranciers beter beslagen ten ijs te doen komen.

Met het oog op het feit dat de moderne detailhandel begint af te zien van gebruikmaking van de traditionele groothandelaren vanwege het gebrek aan efficiëntie dat valt waar te nemen in hun arbeidsysteem, moet dit soort grossiers wel overgaan op modernisering van het systeem teneinde een hoger niveau van efficiëntie te bereiken, wat weer zijn weerslag zal hebben op de uiteindelijke

prijs van de producten, aangezien zij anders niet meer in staat zullen zijn om op te boksen tegen de gespecialiseerde en geëngageerde groothandelaren of grootschalige commerciele agrariërs.

De ontwikkeling van de moderne detailhandel stelt zich niet ten doel de traditionele kleinhandel te elimineren, maar in feite ligt het zo dat de traditionele detailhandelaren de concurrentie van hun moderne rivalen in deze sector niet aankunnen vanwege gebrek aan middelen. Als onderdeel van de plaatselijke economie zouden de traditionele detailhandelaren juist moeten profiteren van de ontwikkelingen in de moderne detailhandel. Teneinde het hoofd te bieden aan de concurrentie van de moderne detailhandel zouden traditionele detailhandelaren zich in een nieuwe positie moeten manoevreren door hun klanten een hygiënische en aangename winkelomgeving te bieden. Verder zouden ze hun producten van hoge kwaliteit op aantrekkelijke wijze moeten uitstallen in hun winkels.

Tot slot kan worden genoemd dat deze studie een bijdrage vormt ten behoeve van de regering, in het bijzonder de plaatselijke autoriteiten, door hen te voorzien van waardevolle informatie betreffende de uitwerking van de ontwikkeling van de moderne detailhandel op de plaatselijke economie. Belastinginkomsten en werkvoorziening zijn niet de enige belangrijke voordelen voor de plaatselijke economie die de groei van de super- en hypermarkten in een bepaalde omgeving heeft gebracht. De ontwikkeling van de moderne kleinhandel zou ook de consumenten, leveranciers en andere detailhandelaren ten voordeel moeten strekken, afgezien van het feit dat dit het leefpeil op een hoger plan brengt. De regering dient de verordeningen consistent uit te voeren, zodat de beschreven ontwikkeling alle partijen die een rol spelen in de waardeketen van deze detailhandelsector in levensmiddelen ten goede zal komen.

1 Introduction

1.1 Introduction

The presence of modern retail in Indonesia started with the emergence of supermarkets in 1970. Modern retail in Indonesia is defined as shopping centres and modern stores, i.e., mini-market, supermarket, department store, hypermarket, and wholesaler that sell a variety of goods to consumers using a self-service system (Presidential Decree-PP no.112/2007). Mini-market has a store space less than 400m^2, while a supermarket is allowed to have a space from 400m^2 to 5000m^2, and more than 400m^2 is defined as a department store. Hypermarket and wholesaler are allowed by regulations to have store space of more than 5000m^2. Mini-market, supermarket, and hypermarket sell convenience goods, particularly foods and household goods to consumers, while department store offers shopping goods, i.e., fashion goods.

Until 1983, supermarkets formed a small sector, located mainly in the Jakarta area serving a niche of market-expatriates and upper-class Indonesians. Rapid diffusion of supermarkets in Indonesia started in 1983, and reached its peak in the early 1990s through market expansion in a few big cities in Java. However, the growth of supermarkets started to decline during the crisis of 1997. After 1998, supermarkets have experienced rapid growth due to the following factors (Natawidjaja, Reardon and Shetty 2007:13-14):

1) Rapid urbanisation, the urban share of population was about 50% of the retail sector by 2006, and real per capita GDP had grown 3% on average during 2000-2004;
2) Retail liberalisation, which started in 1998 as part of Indonesia's economic recovery program with the IMF. This initiative drove the Foreign Direct Investment (FDI) in the Indonesia's retail sector. Continent and Carrefour (French retailers) introduced the hypermarket concept in 1998 followed by Wal-Mart, who left due to the financial crisis, and Giant (Dairy Farm of Hongkong). As part of their competitive strategy, there were some consolidations among big players in this retail sector. Continent was acquired by Carrefour, Hero Group (Indonesian retailers) acquired parts of the Dutch Ahold, Tops also joined with Dairy Farm Hongkong to open hypermarkets. Besides consolidation, some of the local retailers developed their business and introduced a new format of stores, i.e., Matahari group (the biggest retailer group in Indonesia) has developed their portfolio introducing Hypermart (a hypermarket format), while another local group, Yogya has developed its supermarket coverage, and also introduced the mini-market format.
3) Mass investments in urban real-estate after the crisis, and real estate market access is crucial for supermarket diffusion.

Following retail liberalisation, there were two types of modern retail which actively tried to increase their market shares in the Indonesian market – Hyper- and Mini-Market, Carrefour is the leader in hypermarket sector with more than 60 stores in some urban centres, followed by Hypermart and Giant. The big three in Mini-Market sector are owned by a local group with Alfamart as market leader followed by Indomaret and Yomart. Considering the development of modern retailer, Indonesian government has issued a regulation (Presidential Decree - PP no.112/2007) to manage the growth of modern retailer in order to protect and to increase the competitiveness of traditional markets (the so called 'pasar') . Local government in each municipality has been given authority to regulate, to manage and to monitor the development of modern retail and traditional market together with the central government.

Retailing has been viewed traditionally as a dependant industry, which relies on manufacturing industries as the basic sector (Williams 1996:54). There are two types of basic industry activities: the export industry, which consists of primary, manufacturing, and producer service activities that sell their products to consumers outside the local area; and the second type, those companies that bring consumers into locality to spend their money (Williams 1996:54). The retail sector plays an important role in facilitating the growth of economies, particularly at the local level, in that it prevents the drainage of income out of the area (Williams 1997:208).

Retailing activity as part of consumer service sectors plays an important role in encouraging economic growth. As part of the marketing system, retailing has an important contribution to economic development (Kaynak 1986:26; Kaynak and Hudanah 1987). Retail development can prevent the leakage of money by providing facilities that stimulate people not to travel out of the area to acquire that service (Williams 1996:54), which makes the local economy larger and more self-sufficient (Brammer and Tomasik 1995:33). There are previous studies done on economic development (Barnes, Connel, Hermenegildo and Mattson 1996; Hicks and Wilburn 2001; Nene, Azzam, Yiannaka and Katchman 2005; Golden, Jeutang, Pattaik, Rosenbaum and Thompson 2006), and some focus on the impact of modern retail on employment and tax revenue (Ketchum and Hughes 1997; Mehta and Persky 2004 ; Basker 2005; Hicks 2005; Neumark, Zhang and Ciccarella 2008; Basker 2007).

Other studies focus on consumer shopping behaviour (Seiders and Tigert 1997; Arnold, Handelman and Tigert 1998; Singh, Hanse and Blattberg 2004; Fox, Montgomery and Lodish 2004), and indigenous traditional retailers performances (Seiders and Tigert 2000; Peterson and McGee 2000; Arnold and Luthra 2000; Singh et al. 2004), and value chain particularly on the contribution of modern retailers on agricultural producers (Weatherspoon and Reardon 2003; Dries, Reardon and Swinnen 2004, Reardon 2005, Neven and Reardon 2006). There are few studies have been done about modern retailer in developing countries, especially in Southeast Asia (Goldman, Krider and Ramaswami 1999; Suryadarma, Poesoro and Budiyati 2007; Sunanto and Tuninga 2008, 2009; Sunanto, Anggawijaya, Adriani and Palesangi 2010).

The development of modern retail in Indonesia cannot be separated from the role of government, both at central level and local/region/municipality level. They try to attract investment in the retail sector in order to get benefits of modern retailer entry and development, i.e. job availability/creation, and tax revenue. However, in fact, modern retailers are related to other stakeholders in the value

chain such as producers, wholesalers, other retailers, consumers, and also society. The existence of modern retail is expected to give value, not only to consumers but also to local producers, particularly agricultural producers (farmers) and food processors. It is expected that the inclusion of farmers and food processors in the modern retail value chain will bring them prosperity, and supports the local economy. Another current issue regarding environmental impact of modern retail has emerged, being its impact on transportation, air pollution, and waste considering that majority are located in the city centres.

1.2 Problem Identification

Rapid development of retail sector in Indonesia in the last decade has been influenced by the significant growth of hyper- and mini-markets (Table 1.1), while the number of supermarket has declined since 2009. Two retailers, Hero and Matahari decided to close their supermarkets and changed them into the hypermarket format, namely Giant and Hypermart, due to competition and changes of consumers shopping behaviour.

Table 1.1 | Indonesia Retail Structure

Year	*Traditional Grocery Stores*	*Supermarkets*	*Mini-Markets*	*Hypermarkets*
2003	1,745,589	896	4038	43
2004	1,745,589	956	5604	68
2005	1,787,897	1141	6465	83
2006	1,846,752	1311	7356	105
2009	2,520,757	1149	12,599	125

Source: Nielsen (2005, 2007, 2010)

Due to the decentralisation system, local governments in municipality level have authorities to manage the development of modern retail in their area based on their own spatial planning and zonal regulations, which should be issued at least two years after the PP no.112/2007. Local governments have to pay attention to protecting and increasing the competitiveness of traditional retailers, for example traditional and small grocery stores and traditional markets (pasar) in spite of gaining benefits from allowing modern retailers to come into their area.

Traditional retail is characterised as small retail stores owned and managed by an individual or a family. There are two types of traditional retail in this study – small retail stores located in the neighborhood areas (kiosk, or warung, or convenience store) and those are located in the traditional markets (pasar). The term of traditional market emerged along with the phenomena of traditional markets in developing countries. Indonesia defines traditional market as a place where buyers and sellers meet directly to bargain and to do transactions (Muslimin, Farid, Nur, Mahatama, Santoso and Santoso 2010: 21).

A traditional market is perceived as an old building, wet and dirty, and unsafe. Hence, it creates an inconvenient shopping environment due to bad management. It is supported by the fact that 67% of current traditional markets were built between 1976 and 1979 and most of them have never been renovated (Muslimin et al. 2010: 22). Generally, there are three types of places where merchants sell their merchandises in traditional markets – *kios*, *los*, and *gelaran*. *Kios* are small stores, which merchants display their merchandises, and usually located in a *los. Los* is a place like a long alley where *kios* and *konter* are located. *Konter* is an open space store where merchants use desks for displaying their merchandises, and majority of them are merchants who sell vegetables and convenience goods. There are also some merchants who displays their merchandises on the floor called *gelaran* located at the ground floor of building among *los* and *kios*.

Generally, each traditional market has 250-500 *kios* and 150-500 *los*, which shows that traditional markets still survive with quite a big number of *kios* and *los* providing merchandises to fulfil needs of their consumers. In fact, most merchants in traditional markets own small scale businesses with limited capital, sales, and profit supported by a survey that there were 57.78% of merchants owned kios with space between 6-12 m^2, while 20% of them occupied spaces between 1-5 m^2, and 76.5% merchants employ less than five people (Muslimin et al. 2010: 24).

In order to give benefits to local economy, modern retailers have to cooperate with local partners i.e. local suppliers, local farmers, and *koperasi*. Unfortunately, only few municipalities e.g. DKI Jakarta and Bandung have issued or renewed the regulations regarding this. The main concern here is that the new regulations cannot be applied on past decisions, which means that if a hypermarket was allowed to open its outlet near the traditional market, it would not be possible to apply any penalties despite it does not comply with the zonal regulations.

The presence of modern retail is expected to contribute to local economy. According to Brammer and Tomasik (1995: 33), retail development is a dependent part of the regional/metropolitan economy (local economy), which consists of basic industries, supplier industries, and non-basic consumer (or retail) industries. Retail industry as non-basic consumer industries makes the local economy larger and more self sufficient, which has impacts on jobs and income, population and workforce, land and buildings, infrastructure demand, services demand, revenue generation, environmental impact, and standard of living.

As a potentially important market, Indonesia has attracted not only large foreign retailers to setup operations in this country, but has also stimulated the development of modern retail in Indonesia. Retail recruitment brings a new retail to a community, which attracts people from outside the community and stimulates them not to travel out of the community to acquire that service by providing facilities (Williams 1996: 54; Artz and Stallman 2006). Shopping centres can both perform the basic sector function of bringing income into locality and at the same time keep income within the area. The local economic growth can be achieved not only through attracting external income but also preventing the leakage of money out of the area (Persky, Ranney and Wiewel 1993). We will now discuss some of the issues resulting from the rise of modern retail in Indonesia.

Retail development offers a "win-win" deal for three major constituencies – government, citizens, and business, and contributes to regional economy by reducing trade leakage while improving

the overall quality of life for the community through the diversification of services and expanded employment opportunities (Brammer and Tomasik 1995; Gibson, Albrecht and Evans 2003: 50). In addition, retail development benefits the community through increased sales and property tax revenue, which can be used as a strong incentive to produce interest among local politicians and citizens in a retail economic development program (Pittman and Culp 1995: 5).

Previous studies of modern retail and its impact on economic development mainly focussed on big box retailers i.e. Wal-Mart and its impact on employment and local tax revenue in developed countries such as United States (Barnes et al. 1996; Hicks and Willburn 2001; Nene and Azzam 2005; Golden et al. 2006; Ketchum and Hughes 1997; Basker 2005; Newmark et al. 2006; Basker 2007). Nowadays, rapid development of modern retail in Asia, particularly in China and Indonesia has lead to some critical questions regarding their contributions to the local economy despite controversies regarding their negative impacts on traditional markets and small retailers. Considering that phenomena, this study focusses on investigating the impact super- and hypermarkets in Indonesia on local economy in the urban areas where super- and hypermarkets have come up.

Modern retail business in Indonesia is dominated by mini-market (12,599 stores), supermarket (1149 stores), and hypermarket (125 stores) (Nielsen, 2009). They offer convenience goods categorised into four product categories- Food, Non-Food, General Merchandise, and Fresh (except for mini-markets which do not provide fresh goods). Super- and hypermarket products are dominated by food products (52.1%) followed by following products respectively – non-food (24.4%), general merchandise (6.8%), and fresh (16.7%). On average, 85-90% of goods sold in modern retail, particularly basic goods (rice, sugar, and snacks) and fresh goods (fruits, vegetables, meat, and poultry) are provided by local producers. There are some products that are imported such as fruits i.e. orange, melon, apple, grape, and pear and other products in food and non-food categories i.e. confectionaries, biscuits, chocolates, beverages, dairy products, liquid soap, and shampoo. Price is the main reason why those fruits have to be imported, while other products mentioned have to be imported because the local market cannot supply them insufficient quantities.

Realising that local food products dominate merchandise sold at modern retail in Indonesia, local food producers and food processors are an important part of modern retail value chain and local economy should benefit from doing business with modern retail. However, local food producers, particularly small-scale food producers do not have strong bargaining power when dealing with big retailers, and eventually they are forced to accept their conditions instead of losing the business. Based on that fact, this study analyses the impact of modern retail on local producers, particularly agricultural producers and local food processors. This study examines whether agricultural producers and local food processors benefit from doing businesses with modern retail.

Super- and hypermarkets source fruits and vegetables from a mix of (1) direct from farmers, (2) from specialised or dedicated wholesalers, and (3) from the wholesale market. Unfortunately, supermarket only source a small amount of products directly from farmers (only 10 to 30% of their total products), and usually supermarket prefers to source from medium and large farmers (Natawidjaja et al. 2007). Natawidjaja et al. (2007) found that leading super- and hypermarkets in Indonesia source fruits from large importers or wholesalers and large inter-island traders, but they increasingly source

local vegetables from: (1) a new generation wholesalers who are specialised, capitalised, and dedicated to modern food industry segments such as super- and hypermarkets, fast food chains, restaurants, and hotels, and (2) grower/packer/shippers for some products using outgrow schemes. Realising that wholesalers are also a part of modern retail value chain, this study investigates whether wholesalers benefit from development of modern retail.

Another debate concerning modern retail development is whether they decrease the number of traditional retail stores and traditional markets. Previous studies found that most of traditional retailers have had difficulties in competing with modern retailers as indicated by decreasing market share, sales, and profit (Hernandez 2003; Peterson and McGee 2000, Seiders and Tigert 2000; Farhangmehr, Marques and Silva 2000; Arnold and Luthra 2000; Vance and Scott 1994). A qualitative study that was performed in West Java (Sunanto et al. 2010) found that there is decreasing number of traditional markets in this province from 800 in 2000 to 700 in 2010, or about 10% decline on average per year due to following reasons:

1) Shopping is not just an activity to fulfill basic needs, but people do shopping to spend their leisure time with family. Therefore, people prefer to go to the shopping centre or supermarket or hypermarket compared to traditional market;
2) Traditional markets are not able to fulfill consumers' needs of having nice and clean store environment when they do shopping;
3) Implementation of zonal regulations are still weak and inconsistent;
4) Local governments have conflict of interests between investors and traditional retailers.

Findings of previous studies on the impact of modern retail on consumer shopping behaviour and traditional retailers in Indonesia are presented in chapter 4 and 7. With regard to the modern retail development in Indonesia, this research focusses on investigating the impact of modern retail development on agricultural producers, local food processors, wholesalers, traditional retailers, consumers, and local economy.

1.3 Research Objectives

The objectives of this study are:

1) To investigate the impact of modern food retail development, in particular super- and hypermarkets development, as a strategy of local economic development on the actors on the upstream side of the food value chain who managed to become suppliers of super- and hypermarkets in West Java Findings of this study will help policy makers, in this case governments at the municipal level, to manage the development of modern retail in their municipalities in order to increase the welfare of local producers by providing more benefits from the development of modern food retail.
2) To examine whether consumers shift their store preferences from traditional retailers to modern retailers due to the development of modern food retail.

3) To investigate whether local food producers and local food processors benefit from doing businesses with modern food retailers.
4) To investigate whether wholesalers benefit from doing businessess with modern food retailers.
5) To investigate whether modern food retail development affect traditional retailers.

1.4 Research Questions

The major research question of this study is what are the effects of modern food retail development, in particular the rise of super- and hypermarkets in West Java as a part of local economic development program on actors on upstream side of the food value chain who managed to become supplier of modern food retail ?

Minor questions are:

1) What are the impacts of modern food retail development on consumers? Do consumers shift their store preferences from traditional retailers to modern retailers?
2) What are the effects of modern food retail development on agricultural producers? To what extent do they benefits from doing businesses with modern retailers?
3) What are the effects of modern food retail development on local food processors? To what extent do they benefits from doing businesses with modern retailers?
4) What are the effects of modern food retail development on wholesalers? To what extent do they benefits from doing businesses with modern retailers?
5) What are the impacts of modern food retail development on traditional retailers?

1.5 Significance of the Study

This study intends to make a contribution in the following areas: theoretical, empirical and practical. There is limited research on the impact of modern retail development on the local economy, particularly in developing countries. Moreover, previous studies on retail development usually only focus on the economic impact, although it is also realised that retail development has potential impact on social life and the environment.

This study wants to make a contribution to the retailing literature. Retailing is commonly perceived as a part of marketing channel. Its main function is to deliver value to consumers. In recent years, the literature on retailing has developed into the role of retailing for the local economy, particularly focussing on retail development (in this case is development of modern food retail as a strategy to develop the economy). Literature shows that modern retail influences consumer behaviour, traditional retailers, agricultural producers, and local economy. This study shows how modern food retail development affects the local actors in a local economy by examining the impacts of development on agricultural producers, local food processors, and wholesalers. Development of modern food retail in Indonesia provides knowledge that enriches literature of retail development and its impact.

Based on the findings, the researcher will develop specific policy recommendations for policy makers in Indonesia with regard to development of modern retail. It is expected that local government organisations in each municipality are able to encourage economic growth of their areas through policies or regulations that benefit all stakeholders in the local economy.

1.6 Organisation of the Thesis

This thesis consists of eight chapters.

Chapter 1 introduces the background of the study, presents research problem, and identify significance of this study.

Chapter 2 presents the literature review and theoretical framework of this study. The chapter also proposes the hypotheses of this study.

Chapter 3 describes the research method proposed for the study. The chapter consists of research design, operationalisation variables, specific research method used in the investigation, and analytical tools used in the data analysis.

Chapter 4 provides the overview of modern retail development, in particular modern food retail in Indonesia. This chapter also presents findings from previous studies conducted by the researcher on modern retail development and consumers in West Java.

Chapter 5 presents findings and discussions of super- and hypermarkets impacts on agricultural producers and local food processors based on the data analysis performed in the study.

Chapter 6 presents findings and discussions of super- and hypermarkets impacts on wholesalers and all actors on the upstream side of the food value chain who managed to become supplier of super- and hypermarkets in West Java.

Chapter 7 presents findings from previous studies conducted by the researcher on modern retail development and traditional retailers in West Java.

Chapter 8 draws conclusions based on previous analysis. The major findings of the study are identified and implications are drawn. Future research is recommended based on limitations of the study.

2 Literature Review

2.1 Introduction

This chapter presents the conceptual framework needed to build the analytical framework in chapter 3 and the hypotheses of the study in order to answer the proposed research questions in chapter 1. The structure of this chapter consists of six theoretical sections that provide deeper insight into the impacts of modern retail development on local economy, consumers, agricultural producers and food processors, wholesalers and traditional retailers by presenting the relevant theories.

Previous research on the entry of modern retailers, particularly large format retailers were categorised in three different categories. The first category focussed on the impact of modern retail on consumer shopping behaviour including consumer preferences, consumer switching behaviour and consumer loyalty (Seiders and Tigert 1997; Arnold et al. 1999; Farhangmehr et al. 2000; Arnold and Luthra, 2000; Seiders and Tigert, 2000; Singh et al., 2000).

The second category tried to analyse the impact of modern retail on the changes of market structure, retail structure, indigenous retailers performance with their competitive reaction (Davidson and Rummel 2000; Cliquet 2000; Peterson and McGee 2000; Farhangmehr et al. 2000; Arnold and Luthra 2000; Seiders and Tigert 2000; da Rocha and Dib 2002; Hernandez 2003; Singh et al. 2000; Haller 2004; Gatignon, Anderson and Helsen 1989; Ozmet and Martin 1990; Mahajan, Sharma and Buzzell 1993; Robinson 1998; Hallsworth and Worthington 2000; Kahra, Rajiv and Srinivasan 1998; Alexander and Silva 2002; Lira, Rivero and Vergara 2005; Basker 2005).

The last category of the study focussed on the impact of modern retailer entry in some different factors such as the supplier (Bloom and Vanessa 2001; da Rocha and Dib 2002), the host community and neighborhood community (Davidson and Rummel 2000; Arnold and Fernie 2000; Arnold and Luthra 2000), and the economic development (Anderson 1971; Drucker 1958; Wrigley and Currah 2003).

2.2 The Development of Modern Retail in Developing Countries

The development of modern retail in developing regions of Africa, Asia, and Latin America started in the early 1990s. There were three waves of modern retail diffusion in those regions (Reardon 2005: 1-2; Reardon and Gulati 2008: 1), the first wave started in early 1990 concentrating in much of South America, East Asia (outside China), and South Africa with growth in modern retailers' average share in retail sales from about 10 percent around 1990 to about 50-60 percent by the mid-2000s. The second wave was signed by rapid diffusion of modern retailers in Mexico, Central America, and much of Southeast Asia in mid- to late 1990s. This period had growth of average share in retail sales from

5-10 percent in 1990 to 30-50 percent by the mid-2000s. The third wave began in late 1990s and early 2000s with modern retail sales growing at 30-50 percent a year in China, India, and Vietnam.

Growth of super- and hypermarkets has been related to some of the following factors on the demand side (Reardon and Berdegué 2002: 376; Roe and Diao 2004: 788; Reardon 2005: 5): (1) urbanisation, (2) the entry of women into workforce, which make them to look for shopping convenience in terms of time efficiency to prepare the meal, (3) growth in real per capita income in many countries of the regions during the 1990s, increasing demand for processed foods, which mean modern retailers could rapidly penetrate into the market by offering greater variety and lower prices of goods than traditional retailers due to economies of scale in procurement, (4) rapid growth in ownership of refrigerators in the 1990s, along with the rise of middle class, meant that people started to shift their shopping habits from daily shopping in traditional retailers to weekly or monthly shopping in modern retailers. Growing access to vehicles also reinforced this trend

On the supply side, there are several factors which drive the development of modern retail in that regions: (1) retail Foreign Direct Investment (FDI) liberalisation, (2) improvements in coordination and logistical systems, contracts, packaging, (3) modernisation of procurement systems which makes modern retailers more competitive with traditional retailers, and (4) other factors related to the economic forces of world globalisation (Reardon and Berdegué 2002: 376-377; Roe and Diao 2004: 788; Reardon 2005: 5-11).

In general, supermarkets first serve a niche market, upper and middle class in capital cities and then spread from big cities to small towns in rural areas in order to penetrate into the food markets of the poor (Reardon and Berdegué 2002: 376; Reardon 2005: 4). However, in some countries big box retailers i.e. hypermarkets and big discount stores do not allow to open their stores in small towns in order to protect small traditional retailers. The diffusion of modern retailers also rolled out from processed foods to semi processed foods to fresh produce, and from domestic local chains to multinational. The procurement by modern retail was ranging from the spot wholesale markets, and few standards were used to direct sourcing from preferred suppliers, consisting of dedicated wholesalers, food companies, cooperatives, or farmers (Reardon, Timmer and Minten 2010: 1).

The development of modern retail has pros and cons regarding its impacts on following issues: (1) changes in retail structure which influence traditional retailers (Davidson and Rummel 2000; Cliquet 2000; Peterson and McGee 2000; Farhangmehr et al. 2000; Arnold and Luthra 2000; Seiders and Tigert 2000; da Rocha and Dib 2002; Hernandez 2003; Singh et al. 2000; Haller 2004; Gatignon et al. 1989; Ozmet and Martin 1990; Mahajan et al. 1993; Robinson 1998; Hallsworth and Worthington 2000; Kahra et al. 2000; Alexander and Silva 2002; Lira et al. 2005; Basker 2005); (2) suppliers, in this case is agricultural producers (Dries et al. 2004; Reardon and Berdegué 2002; Roe and Diao 2004; Reardon 2005; Weatherspoon and Reardon 2003; Neven and Reardon 2006); (3) local economy (Barnes 1996; Hicks 2001; Nene and Azzam 2005; Golden et al. 2006), which focus on employment (Basker 2005; Golden et al. 2006; Neumark et al. 2006; Ketchum and Hughes 1997; Hicks 2007) and tax revenue (Mehta et al. 2004; Hicks 2005).

Most of traditional retailers face difficulties in competing against modern retailers, that are indicated by decreasing market share, sales, and profit (Hernandez 2003; Peterson and McGee 2000,

Seiders and Tigert 2000; Farhangmehr et al. 2000; Arnold and Luthra 2000; Vance and Scott 1994). A study on hypermarkets entry in Malaysia (Shamsudin and Selamat 2005) shows that traditional retailers such as independent grocers and mini markets gradually closed. Emergence of modern retailing such as super- and hypermarkets filled this gap. Local retailers face intense competition from foreign hypermarkets and try hard to maintain their customers, however, they experience declining sales with low turnover.

A previous study in Indonesia found that both super- and hypermarkets did not significantly influence the decline of earnings and profits of traders in traditional markets, while most traders have gone out of business during the last three years after modern retail entry due to internal market and personal problems such as lack of management skills (Suryadarma et al. 2007: 30). However, a recent study of modern retailers and traditional retailers in West Java, Indonesia showed an interesting finding that super- and mini-markets negatively influenced traditional retailers, i.e. wet markets, small kiosks, and hawkers, in terms of number of customers and sales, while hypermarkets did not have any significant influences on traditional retailers (Sunanto et al. 2009: 372).

Another important issue of modern retail development in developing countries is its impact on producers and processors. The biggest share of super- and hypermarkets sales comes from processed food, staple goods or semi-processed product provided by food processing and food manufacturing companies. However, by buying those goods from processors, modern retailers indirectly affect farmers because processors tend to pass on the demands placed on them by their retail clients (Reardon and Gulati 2008: 1). Considering that the share of fresh produce has increased in developing countries (15-20 percent of super- and hypermarkets' food sales), modern retailers increasingly buy from farmers through specialised and dedicated wholesalers who collect products from farmers due to modernisation of modern retail procurements. Modern retailers also buy particular fresh produces such as raw seasoning and eggs directly from the farmers, include small and medium scale farmers. However, there is little opportunity for farmers to sell their produce graded by different qualities. That means that there still is little to no reward to farmers to produce quality while wholesalers sell by grades and capture the profit differences (Natawidjaja et al. 2007: viii).

More recently, retail development, particularly development of modern retail, has been performed as a strategy to boost the local economy with following supporting arguments (Brammer and Tomasik 1995: 32; Phillips 2000: 9): (1) retail development contributes to quality of life because it is perceived as a clean development, which means less destructive to natural environment compare to manufacturing, (2) retail is a growth industry, which expands follows the population, therefore, while employment has declined in manufacturing and other sectors, retail sector continues to expand, (3) retail development generates income from its sales tax revenues and property taxes to the communities, thus retail is the backbone of local economies.

2.3 Modern Retail Development and the Local Economy

The consumer service sector such as retailing has been viewed traditionally as dependent industries, which relies on manufacturing industries as the basic sector (Williams 1996: 54). Manufacturing

sector has traditionally perceived as the backbone of local economy due to following reasons (Gibson et al. 2003: 47): (1) manufacturing provided a large number of jobs and paid high wages, (2) export orientation is the primary activity in manufacturing that import payment into the region, (3) substantial investment in plant and equipment usually back up the manufacturing jobs, while the investments generate tax revenues for local government, and finally, (4) manufacturing is the ideal engines for regional industrial clusters due to its complex patterns of forward and backward linkages.

Changes in economic life around the world whereas manufacturing's share of countries' employment has dropped, has pushed economic developers to shift from the "old" economy to the "new" economy which involves consumer service sectors such as retail and tourism as the pull factor to boost the local economy. Retailing plays an important role in encouraging economic growth through preventing the leakage of money by providing facilities that stimulate people not to travel out the area to acquire that service. Retail counts as economic development when retail performs as a basic sector function as export activity by bringing income or money into the locality and at the same time keep the money within the area (Pittman and Culp 1995: 5; Williams 1996: 54; Gibson et al. 2003: 50).

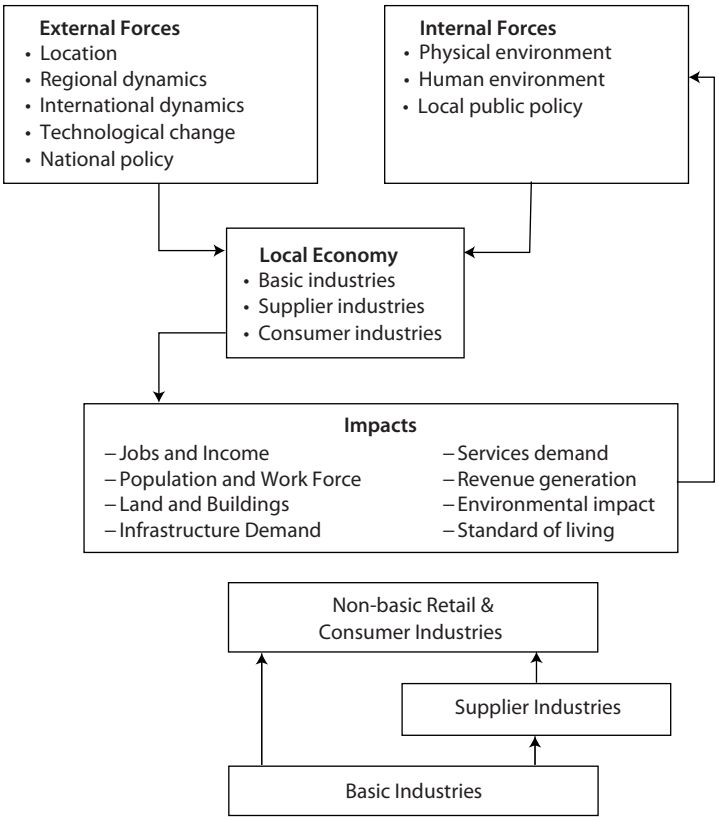
Modern retail development has increasingly become a popular strategy for economic developers due to its win-win deal for most economic constituencies i.e. government, citizens, and business (Brammer and Tomasik 1995: 32). Retail establishments and growth of shopping centres stimulate economic development, rather than being dependent on it. Tax revenue is the primary drive of local government, while citizens have positively perceived retail development contributes to people's quality of life with its clean development comparing to manufacturing. Other businesses such as landowners, developers, and brokers also get benefits from higher value of building, land, and rent (Pittman and Rhonda 1995: 5; Brammer and Tomasik 1995: 32; Phillips 2000: 9). Another potential contribution from retail development is job creation resulting from direct employment in retail facilities and indirect employment in providing goods and services to the new store, while jobs are also creating construction (England 1997: 23).

As Kaynak (1986:117) describes that modern retailers, particularly foreign modern retailers bring following benefits to less-developed countries: (1) offer price and service competition to local middlemen, (2) to stimulate local production by helping to rationalize local sources of supply, and (3) to make new merchandise available as an incentive to indigenous labour.

Local economy consists of people, organisations, or sectors, which are interlinked. Patterson (2007: 36) also quotes the Hausner, Tadeusz and Jacek (1997) definition of local economies as systems composed of multiple locations and multiple networks bound together by patterns of cooperation and control. Domisch (1999: 24) defined local economy as an ecology of projects composed of constituent localities, sectors and organisational networks. Patterson (2007: 36) himself defined local economy as a concentration of business, of buying and selling, of employment patterns and community ties, in an area defined by the institutional and administrative structures of local government, which refers to a "district" in his research.

What is the role of retail development, particularly the existence and development of modern retail in local economy? Brammer and Tomasik (1995: 32) present their model of the economics of the food chain (Figure 2.1).

Figure 2.1 | The Economic Food Chain: How Does a Local Economy Work?



Source: Brammer and Tomasik (1995)

Figure 2.1 shows that retail (non-basic consumer) industries are supported by basic industries, supplier industries, and other consumer industries to provide goods and services for market population. Basic industries consist of companies that sell goods and services to markets outside the local area and supplier industries, which sometimes part of retail development, sell goods and services directly to basic industries. Consumers served by basic and supplier industries buy retail goods and services. Brammer and Tomasik (1995: 33) argued that retail development makes local economy larger and more self-sufficient by keeping retail purchases inside the local economy. Strategy of retail development could be performed on basic industries consist of retail businesses that serve regional populations, and non-basic industries that serve local populations.

One of retail development strategies is attracting big modern retailers to come into local markets. Those big modern retailers enter the local markets and also rapidly penetrate the market. They could have positive as well as negative impacts on the local economy (Golden et al. 2006). Big modern retailers increased the economy productivity and employment level, and decreased consumer prices (Hicks and Wilburn 2001; Basker 2005). On the other hand, some research found that big modern retailers increased local poverty level in US counties during the 1990s relative to places that had no such stores (Goetz and Swaminathan 2004: 12) and failed to increase level of local employment and also declined the local economic growth in the initial year of their entries (Neumark et al. 2008; Nene 2005).

Interestingly, some scholars relate the channels to the stage of country's economic development process and give empirical evidence that economic development also determine the channel structure (Olsen and Granzin 1990; Ling Yi and Jaffe 2007). Economic development provides the need for more efficient channel, as more private-owned intermediaries enter the distribution system, followed by reducing number of channels as an effect of vertical integration and a shakeout of less efficient enterprises. To promote these developments, government policies are formulated to support the distribution reforms, issuing open market policy in order to attract foreign firms to come into the domestic market (Ling Yi and Jaffe 2007: 35).

2.3.1 Modern Retail Development, Value Chains and Local Economic Development

Local economic development (LED) is defined as a process in which partnerships between local governments, community-based groups and the private sector are established to manage existing resources, to create jobs and stimulate the economy of a well-defined territory. It emphasises local control using the potentials of local human, institutional and physical capabilities. Local economic development initiatives mobilise actors, organisation resources, develop new institutions and local systems through dialogue and strategic actions (Helmsing 2001: 3).

Due to structural adjustment, market liberalisation and improvements in transport, comunications and management technologies, the context of local economic development has changed since the nineteen eighties in low-income countries (Helmsing 2001: 59; Helmsing 2001: 277). Firstly, central governments have lost their central economic coordinating role. Local production is difficult to improve since they depend on investments by other producers and other economic agents, such as traders and bank. The interdependence may create a deadlock, which may isolate and underdevelop the area. Local economic development can contribute to reduce the deadlock. Secondly, the new 'geo-economy" creates winners and lossers. Some localities benefit from the larger domestic market and international markets by exporting goods and services, but others are unable to benefit from the opportunities. In this phase, central governments pay less attention to equalisation of conditions across regions and localities. Thirdly, localities are increasingly engaged themselves to create place prosperity, to create the right conditions for the economic advancement of its population, that households can improve their lives and that workers can find jobs that match their capacities. In this phase, local government are not the lead actor when it comes to local economic development. Fourthly, local economic development bring new roles for the public sector, that the context of

local economic development applies not only to central government, but also to local government (Helmsing 2001: 63).

There are three categories of local economic development initatives: community economic development, enterprise development and locality development (Helmsing 2001: 64). Community economic development facilitates households to improve livelihood and reduce poverty and vulnerability through diversification of economic activity (Helmsing 2003: 69). There are a number of objectives of community based economic development: (1) to stimulate a sense of community, (2) to promote self-help and empowerment, (3) to contribute to the generalisation of self-employment, (4) to improve living and working conditions in settlements, and (5) to create public and community services (Helmsing 2001: 65).

The core of local economic development programme in enterprise development is the expansion, re-structuring or creation of the economic base of the area, which consists of one single or various concentrations or clusters of local producers in particular industries (Helmsing 2001:69). Local producers can take initiatives to strengthen the clusters and to advance local participation in the corresponding commodity chains. Once a cluster has been formed, a new phase may of local economic development set in, namely that of 'active collective efficiency' that has three components: (1) local producers, particularly medium or small size, may find it advantageous to specialise, (2) the creation of private regulatory and support institutions by joint actions among loca producers, and (3) local collective action of local producers towards both central and local government to lobby for public support institutions and insfrastructures (Helmsing 2001: 68)

The last initiative category of local economic development corresponds to the management of the entire local territory, namely locality development (Helmsing 2003: 73). To meet the intensity of urban population growth, physical infrastructure and economic and social overhead capital of the locality should be built in such a manner that it generates the balanced development of all land uses, resolving land use conflicts, minimising negative externalities (congestion and pollution) and maximising positive ones (agglomeration economies). Localities that succeed in better management of their territories contribute to enhance the competitiveness of their economic activities, which may also imporve the local quality of life (Helmsing 2001: 71).

As the context for local economic development has extremely changed in the last two decades, the responsibility of central government to place prosperity has been reduced. Local actors have been given the frameworks and have themselves developed the full range of processess to do their own development (Helmsing 2001: 73). However, it should be noted that local economic development does not refer only to local institutions but also to decentralised sector and national agencies, and the participation of external stakeholders may be critical (Helmsing 2001: 9).

There are three factors enhancing the localised nature of economic development – externalities, learning and governance (Helmsing 2001: 277). Based on Krugman's concept of agglomeration, there are three sources of external economies – labour market pooling, specialist inputs and services and knowledge and information flows (Helmsing 2001: 279).

In the field of development policy and practice, value chains and their development are generally considered important to upgrade small producers, to improve income and employment, and to alleviate poverty (Helmsing and Vellema 2011: 4,18; Van Dijk and Trienekens 2012: 10).

Kaplinsky (2000: 121) defines value chain as the full range of activities required to bring a product or service from conception, through the intermediary phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use. The concept of value chain focusses on the networks and arrangements that bridge the entire chain of actors, directly and indirectly, involved in the production of a particular commodity or serice (Helmsing and Vellema 2011:4). The behaviour of a lead agent as an actor who has the capacity to set barriers to entry and to regulate and coordinate the behaviours of others is a key factor in managing interdependencies in the value chains. The actor can be a single company, a group of traders, or a cooperative managing trade flows (ibid.).

Modern retail in this study may become the lead firm that has substantial power, that enables it to inlude or exclude actors or to arrange access to resources. Retail development as the strategy to boost local economy should benefits all actors in the value chains, especially local small producers and small firms. Development outcomes are importantly defined in terms of benefits for or enhanced capabilities of actors on the upstream side of the value chain (Helmsing and Vellema 2011: 4).

The development of modern food retail in developing countries brings benefits through upgrading the value chains. Most approached to upgrading found in literature focus on upgrading of value added production, which can take various forms: (1) upgrading of products (and packaging), (2) upgrading of processess, (3) functional upgrading (in-sourcing production or distributive functions), and (4) intersectoral upgrading (product differentiation) (Trienekens and Van Dijk 2012: 239).

2.3.2 Measuring Retail Impact

There are several methods of retail impact assessment, particularly the impact of retail development on local economy (Phillips 2000: 22-24). The first method is (ex-post)cost-benefit analysis, that is usually performed to examine retail development impact which includes any public sector involvement through financial or other measures on society. This method measures not only financial attributes or financial investment performance, but also social costs and benefits, however this method is expensive and timely to conduct.

The second method is fiscal impact analysis, which examines current costs and revenues related to a projected project. This method is not as comprehensive as post cost-benefit analysis, and usually applied at the local government level. The third method, economic impact analysis, is performed to assess both direct and indirect impacts of a project introduced to a local economy.

Phillips (2000: 25-26) developed a modified economic impact method to assess the impact of retail-based projects. The assessment consists of six following steps: (1) estimate sales tax revenues, (2) estimate property tax revenues, (3) estimate impact on local jobs, (4) estimate any other direct investments, (5) estimate costs to the host community, (6) calculate economic return to community. This method is able to show the economic impact of the project to the community.

Retail impact assessment does not focus only on economic impact. There are three types of impact – economic, social, and environmental (England 1997: 21-22). Economic impact analysis is the most frequent analysis used to assess changes in retail turnover or trading patterns in shopping centre as a result of new shopping developments. Key indicators of economic impact are retail expenditure and employment. Social impact deals with demographic and behavioural change which focussed on implications of (new) retail development on shopper profile, and issues of disadvantages shoppers. England (1997: 24) identified a number of people who are more likely to be disadvantaged as shopper. They are: (1) low income earners, (2) residents of locations poorly served by public transport, particularly on peripheral estates or in rural areas, (3) people without access to a car for routine shopping trips, (4) people with caring responsibilities e.g. women, young children, or elderly relatives, (5) the disabled and others with mobility problems, (6) ethnic minorities. Environmental impact is concerned with the impact of (new) retail development on transportation and built environment. Transport impacts examine traffic volumes, car parking, provision of pedestrian areas, and public transport systems due to retail development. The impact on built environment due to retail development analyses changes in the land use distribution of centres, condition of buildings, redevelopment strategies, enhancement strategies, and level of care and maintenance.

Considering that human needs for a healthy environment have become an important part of human needs for a good quality of life, Yang (2002) examined the impact of shopping centres on the retail supply quality and store location environment. Retail supply quality reflects consumer quality of life, which is explained that if a household can purchase their needed goods in several shopping centres with a cheap and short traffic journey, the household will enjoy a high quality of retail service. Store location environment is represented by number of shopping trips and length travelled by corresponding shoppers such as energy consumed by cars and elevators. Shopping centres with shorter total shopping trip lengths are more environmentally friendly.

There are five types of argument regarding to the importance of retail impact assessment (England 1997: 19): (1) change argument relates to any changes in an economy or a physical environment, (2) control of public costs argument relates to risk of unregulated private actions which can cause undesirable public or environmental costs, (3) efficiency argument, which is concerned with the efficient use and allocation of resources, especially land, (4) equity argument relates to the degree of accessibility of different types of retail outlet and shopping centres directly affects standard living of all consumers, and finally (5) quality of life argument relates to the degree of accessibility of different types of retail outlet and shopping centres indirectly affects the quality of life of individuals and groups in society.

A methodology developed specifically by Parker (1995) to assess the impact of large food stores, suggests a combined retail, economic, and transportation evaluation. Retail economic evaluations measure catchment area profiles and shopping patterns, quantitative impacts, and employment impacts. Retail development impact on transportation examined by measuring modal split/public transportation, car ownership/availability, car parking, linked trips/store location, and travel distance.

Using backward and forward linkages, Gandee (2002) measures the economic impact of the Maine food system, which focusses on the farm production industry. Backward linkages determine

the amount of economic activity generated from the production of the particular sector and can be used to estimate the economic multiplier of that sector, while forward linkages represent sales of farm output by farm establishments in the case of Maine (Gandee 2002: 4,6).

2.4 Modern Retail Development and Consumers

Previous research on the effects of modern retail on consumers mostly focussed on its impact on shopping behaviour. Shopping behaviour is a self-conscious activity involving people when examining or purchasing goods or services, which can be a single act or a set of interrelated unit acts, which may produce positive or negative benefits for the individual (Darden and Dorsch 1990). Each shopping behaviour can be different, depending upon some factors, for example shopping trip regularities, whether people do a random shopping trip or more regular shopping trips (Kim and Park 1997: 503).

It is always interesting to study how retailers influence consumer behaviour, especially store choice decisions. Consumer preference plays an important role, while the consumer examines a set of alternatives of shopping places. A traditional view of consumer preferences states that consumer preferences are fixed and exogenous (Carpenter and Nakamoto 1989). Consumers come to market with fixed preference structure and this preference determines whether they buy from one store or another. Retailers cannot persuade consumers to change their preferences through their marketing mix because consumer preferences are fixed and exogenous. Contrary to the traditional view, Carpenter and Nakamoto (1989) showed that market pioneers are able to influence consumer preferences. They give arguments based on empirical study that early entrants can shift consumer preferences to a situation where the pioneer attributes are preferred to those of later entrants.

A large format retailer may take advantage of consumer ambiguity to shift consumer preferences in its favour. In other words, the large format retailer marketing strategy may influence or even change consumer preferences (Seiders and Tigert 2000). Consumers prefer to buy low risk goods such as convenience goods in a hypermarket, because of price and convenience, although they also buy in several other outlets. However, they prefer to buy higher involvement products in a traditional store (Farhangmehr et al. 2000).

A study of consumer perceptions of the hypermarket and traditional stores in Portugal (Farhangmehr et al. 2000) showed that consumers prefer to buy convenience goods or low involvement goods from the hypermarkets because they offer more benefits regarding prices, promotions, assortment, novelties, and schedules. However, for high involvement goods such as household appliances, consumers prefer to buy those goods from traditional retail stores considering the benefit of saving time spent on shopping.

Literature on retailing shows that there are several reasons for customer switching behaviour: location changes, pricing, convenience, assortment, services, quality, store environment, competition, ethical problems, and involuntary switching (Seiders and Tigert 2000; Arnold et al. 1983; Louviere and Garth 1987; Eagle 1984). Switching costs plays an important role in a customer's decision to change. A new entrant who has a greater competitive advantage by bringing noticeable distinction

with lower switching costs, acquires a bigger portion of the switcher segment (Seiders and Tigert 2000).

Findlay and Sparks (2008) study of the impact of new entrants (in this case the new entrant was a store, which took over a competitor's store) on consumer switching behaviour, found that competency and strategy of the retailers were considered as the main factors, which influenced consumer switching decision.

An interesting experience through service and merchandise become a major consideration which causes consumers willing to have extra travel efforts to buy grocery and fresh goods (Sinha and Banerjee 2004). However, their research in the Indian retailing sector found that the most important factor driving consumer loyalty for grocery stores was proximity, not the store atmosphere.

2.5 Modern Retail Development and Agricultural Producers (Farmers) and Food Processors

Realising that almost 80 percent of goods sold in super- and hypermarkets are processed, staple, or semi-processed products, food producers and food processors have experienced the biggest impact of modern retail on producers and processors. By buying from food processors, modern retail indirectly affect farmers, because farmers provide inputs for processors which receive demands from their retail clients (Reardon and Gulati 2008: 1). The World Bank predicts that between 40% and 60% of all agricultural products and food products in emerging economies may be sold through large supermarket chains, however, the main concern is that the increased supermarket's penetration could create a condition of diminishing market for local products (Roe and Diao 2004: 789).

As modern retail modernise their procurement systems, producers and processors have to meet the requirements on quality, costs, and terms of payment set by modern retail. Due to intense competition in modern food industry, modern retail initiated a modern procurement systems such as centralised, integrated procurement systems, global and regional procurement, contracts and private standards, the use of specialised/dedicated wholesalers, and have moved gradually away from traditional market channels' reliance on spot markets and traditional brokers that dominated traditional product value chains (Reardon and Gulati 2008: 2; Natawidjaja et al. 2007). Consequently, if local farmers and processors have not learned to satisfy the quality and volume demands of the new marketing structure, this could pose significant threats where inefficient or undercapitalised farmers cannot make the grade and this depress agricultural sector for several years (Roe and Diao 2004: 789; Dries et al. 2004).

There are four trends in retail procurement system change following the entry of modern retail (Reardon 2005: 14-24). First trend is the centralisation of procurement system as the result of a shift from a fragmented, per-store procurement system, to a distribution center serving several stores in a given zone or district, and eventually the whole country. Centralization helps retailers to increase their efficiency through reducing coordination and other transaction costs, however, this system may increase transport costs by extra movement of the actual product. As the number of large modern retail, such as hypermarkets, are actively tried to increase their market shares in developing countries,

they set up a regional system of distribution centres to allow coordinated procurement over a set of countries.

The second trend in retail procurement system, is the use of specialised/dedicated wholesalers, which replaces spot markets (traditional wholesale markets and brokers). Usually specialised/ dedicated wholesalers are the main client of a supermarket/hypermarket who provides a specific product category. The benefits of specialised wholesalers are efficiency in transaction, coordination, and search cost, and urge private standards and contracts with suppliers on behalf of the supermarkets.

The third trend describes a shift from spot market to implicit contracts or preferred supplier lists. Retailers build a list of suppliers, usually an informal one through their wholesaler, or directly by themselves. Contracts consist of incentives provided for the suppliers to stay with the buyer and over time make investments in assets specific to the retailer requirements regarding the products, while retailers get a guarantee of on-time delivery and quality of delivered products.

The fourth trend in retail procurement system change is the rise of private standards of quality and safety, and private enforcement of public standards. The objectives of standards are to specify and to harmonise the product and delivery attributes, which enhance efficiency and lower transaction costs. Unfortunately, in developing countries, many small farmers and food processors are facing difficulties to meet the standards, therefore they are dropped from the list.

A study in Indonesia found that local farmers are facing difficulties to meet the requirements set by retailers, due to some constraints such as poor infrastructures (roads), corruptions, lack of cold chains and logistic services (Natawidjaja et al. 2007: vii). However, despite supply chains and wholesale markets are stagnant, the horticultural economies of local area have shown some significant developments, particularly in the wholesale sector. Natawidjaja et al. (2005: viii) explains that farmers have little to no opportunity to get reward from producing quality, but the wholesalers sell by grades and capture the profit differences.

As supermarket modernises the procurement systems, there are some patterns of participation by suppliers in supermarket supply chains (Reardon and Hopkins 2006: 530): (1) supermarket chains tend to source from medium and large suppliers, typically for meat and dairy products, and other processed food; (2) supermarket chains also tend to source fresh products from medium/large farmers, if possible, but it is difficult for farmers in developing countries to provide expected quality of products except for local fruits such as banana and other export sectors where large and medium farms have developed in produces; (3) mostly, supermarket chains source indirectly from small farmers through wholesalers and processor; (4) where small farmers are lacking of the needed assets, though the channel have to rely on them, usually the proximate intermediary provides assistances in training, credit, and so on.

Berdegué (2001) also found that small farmers in Chile faced inconvenience when they had to do businesses with modern retailers, due to modern retailers' procurement practices i.e. long term payments (up to 60 and 90 days after delivery), high rates of rejected produces, and costs such as shelf fees and special discounts usually offered to consumers once a week (Reardon and Berdegué 2002). However, findings of a study on small contract farmers in Madagascar seem to contrast with other

studies which find that high standard suppliers find the modern retail chains have not yet interested in their products (Minten, Randrianarison, and Swinnen 2006: 9).

Other interesting findings from Minten et al. (2006) are that modern retailers, in this case supermarkets, improve small farmers' welfares, more income stability, and shorter lean periods through contracts combined with extensive farm assistance and supervision program. They also find that small contract farmers have significant improvement in technology adoption, better resource management, and spillovers on the productivity of the staple crop rice.

The modernisation of the modern retail procurement system in Asia not only affects farmers, but also food processors as it is realised that two thirds of food sold at modern retail are processed foods such as grains, edible oils, and packaged foods, and semi-processed foods such as meat and dairy (Reardon et al. 2010: 4). However, small food processors in developing countries are often excluded from supermarkets procurement system (Reardon 2005: 29). Modern retailers prefer medium/large processors as a main source of processed- and semi-processed foods because of lower product and transaction costs, the ability to provide diversity of product types in a "one-stop shop", attractive packaging, formality of invoicing needed for value-added tax accounting and product liability, and brand development that attract Asian consumers (Reardon et al. 2010: 4).

It is becoming a trend now in Western Europe that large retailers are influenced to modify their sourcing procedures in order to upgrade small farmers and processors to meet the requirements of supermarkets procurement systems. The capital building of human, physical, organisational, and institutional is needed by producers and processor to meet the requirements and to reduce tensions between retailers and suppliers (Reardon 2005: 31).

2.6 Modern Retail Development and Wholesalers

Wholesalers have an important role in the food supply chain. A study on supply chain of fresh fruits and vegetables (FFV) in Indonesia (Natawidjaja et al. 2007) found, that leading retail chains source fruits from large importers or wholesalers and large inter-island traders, but they increasingly source local vegetables from: (1) a new generation wholesalers who are specialised, have invested in, and are dedicated to modern food industry segments such as supermarkets, hypermarkets, fast food chains, restaurants, and hotels, and (2) growers/packers/shippers for some products using outgrow schemes. Traditionally, modern retailers source vegetables from local collectors, and traditional wholesalers who collect or buy vegetables directly from farmers. However, supermarkets find that traditional wholesalers provide inadequate services due to they lack standards, mix items of different grades, and have significant bargaining power in the wholesale market, since wholesaling is usually concentrated per product rubric (Reardon and Berdegué 2002: 380).

As modern retail modernises its procurement system, specialised wholesalers have been increasingly used to maintain regular supply and to guarantee the quality of products, while a number of farmers joined a farmers group in order to increase their competitiveness and bargaining power. Natawidjaja et al. (2007) also found that small horticulture farmers are starting to participate in

supermarket's supply chain, mainly through the specialised or dedicated wholesalers, but also through some large wholesalers, and a few groups directly.

Supermarkets tend to continue to procure from wholesale markets only where they cannot make adequate arrangements direct with producers through their distibution centres, or where new types of wholesalers emerge to meet their needs (Reardon and Berdegué 2002: 380). A study of South African supermarkets hypothesised that larger chain supermarkets tend to use distribution centres and direct contracts more than they use wholesalers, and small chain supermarkets and independent stores tend to use wholesalers to source (Weatherspoon and Reardon 2003: 10).

2.7 Modern Retail Development and Traditional Retailers

Previous research on modern retail focussed on the impact of large format retail entry on local retailers. The existence of a large format retailer has direct impact on local retailers including independent stores, and small or traditional stores. When a Wal-Mart entry is incurred, traditional grocery stores in a small town in the East Coast region of the US lost 17% of trade volume amounting to a quarter million dollars in monthly revenue (Singh et al. 2004: 5). Fewer store visits is the main reason for these losses, with little impact to the basket size. Other important findings are that a small proportion of customers, although large purchase customers, accounted for a big proportion of the losses. They suggest that traditional grocery stores must have an effective strategy to increase store traffic and focus on customer retention especially for primary shoppers.

More than half of local retailers were negatively affected by large format retailer entry into the local market and smaller retailers were affected the worst (Peterson and McGee 2000: 178). Peterson and McGee (2000) analysed the changes in sales and marketing activities in the first year after Wal-Mart entry, and also analysed marketing activities sustainability and local merchants' relative performance up to three years after Wal-Mart entry. Their study found that Wal-Mart does not only negatively affect local merchants in the first year, but also in the following years. There are negative relationships between sales changes in the first year and two immediate marketing responses that involve promotion activities during the first year. Three years after the large format retailers' arrival, small retailers were more stressed, reported lower performance than those who were not as stressed. The defense strategy of the incumbents that involved greater internal quality control has not been successful in overcoming the advantage in trade when existences of large format retailers become competitive.

Most of traditional retailers face difficulties in competing against large format modern retailers that are indicated by decreasing market share, sales, and profit (Hernandez 2003; Peterson and McGee 2000, Seiders and Tigert 2000; Farhangmehr et al. 2000; Arnold and Luthra 2000; Vance and Scott 1994). An interesting finding based on Davidson and Rummel study (2000) of Wal-Mart's entry into Maine showed that total retail sales and sales in each category in 13 Wal-Mart host towns experienced significant increases (with only two exceptions) four years after Wal-Mart came into the town. Wal-Mart had the ability to attract shoppers from neighbouring towns to travel to Wal-Mart host towns for their shopping. Previous research indicates that the entry of large format modern retailer stimulates

growth in certain retail categories, also leads to a decline in other categories (Arnold and Luthra 2000, Stone 1995).

As consumers are asked to compare small stores versus big stores, they have interesting perceptions of both types. Uusitalo's (2001) study found that consumers perceive a small store is attractive because shopping there is efficient, fast, and simple. Accessibility, familiarity, and intimacy are important factors, which make consumers prefer to shop in small stores. Big stores, which are usually located in city centre, are associated with a wide variety of goods, a lot of walking and searching, and buying a large amount of goods at a lower price. Some consumers feel that shopping in big stores is convenient because of the one stop-shopping concept. However, they compensate their extra walking in big stores space with purchasing larger quantities at one time.

2.8 Conceptual Framework of the Study

Figure 2.2 presents the conceptual framework of this study. As part of strategy to boost local economy, retail development has become a popular strategy to achieve the goal. However, there are some factors that also contribute to the rapid development of retail sector, i.e. urbanisation, liberalisation of retail foreign direct investment, and massive investment in urban real estate.

When the policy makers choose a retail development strategy, they open their (domestic/ local) markets to the investors who are interested to operate their retail businesses in those markets. Generally, retail formats that are preferred are modern retail ones, such as mini-markets, super- and hypermarkets and shopping centres. The development of modern retail may bring positive or negative impact or even both of impacts on the local economy.

As Helmsing (2001:3) states local economic development involves partnerships between local governments, community-based groups and the private sector to manage existing resources, to create jobs and stimulate the economy of a well-defined territory, it needs local control, using the potentials of local human, institutional and physical capabilities. The local governments, through regulations, try not only to stimulate the local economic development through its retail development program, but also to manage the impacts of the program on key actors in the local economy; in this case are local producers and processors, wholesalers, traditional retailer and.consumers. Taking the value chain perspective, what is the role of marketing channel such as retailer and wholesaler in the value chain? Using Lazzarini, Chaddad and Cook's (2001) "netchain concept" which identifies the interrelationships between the horizontal and vertical dimension in the value chain, the role of marketing channel i.e. the retailer is defined as a value chain or supply chain forming a "channel" for products and services that are intended for sales in a certain markets (Trienekens 2012:49). As it is acknowledged that value chains and their development are considered instrumental in achieving desired outcomes of economic development, such as poverty alleviation, entrepreneurship and decent labour conditions, the development should benefit actors on the upstream side of the value chain (Helmsing and Vellema 2011: 4).

The term value chain was first introduced by Michael Porter in the 1970s and 1980s reflecting the value adding character of business processes within the borders of the company (Trienekens

2012: 46). As a production network, value chain is a network of horizontally and vertically related companies that jointly aim at/work towards providing products or services to a market (Trienekens 2012: 48). Trienekens (2012: 48-49) states that the vertical dimension reflects the flow of goods and services from producers up to end consumers, while the horizontal dimension reflects relationships between actors in the same chain link, for example between farmers, between producers, between processsor, etc.

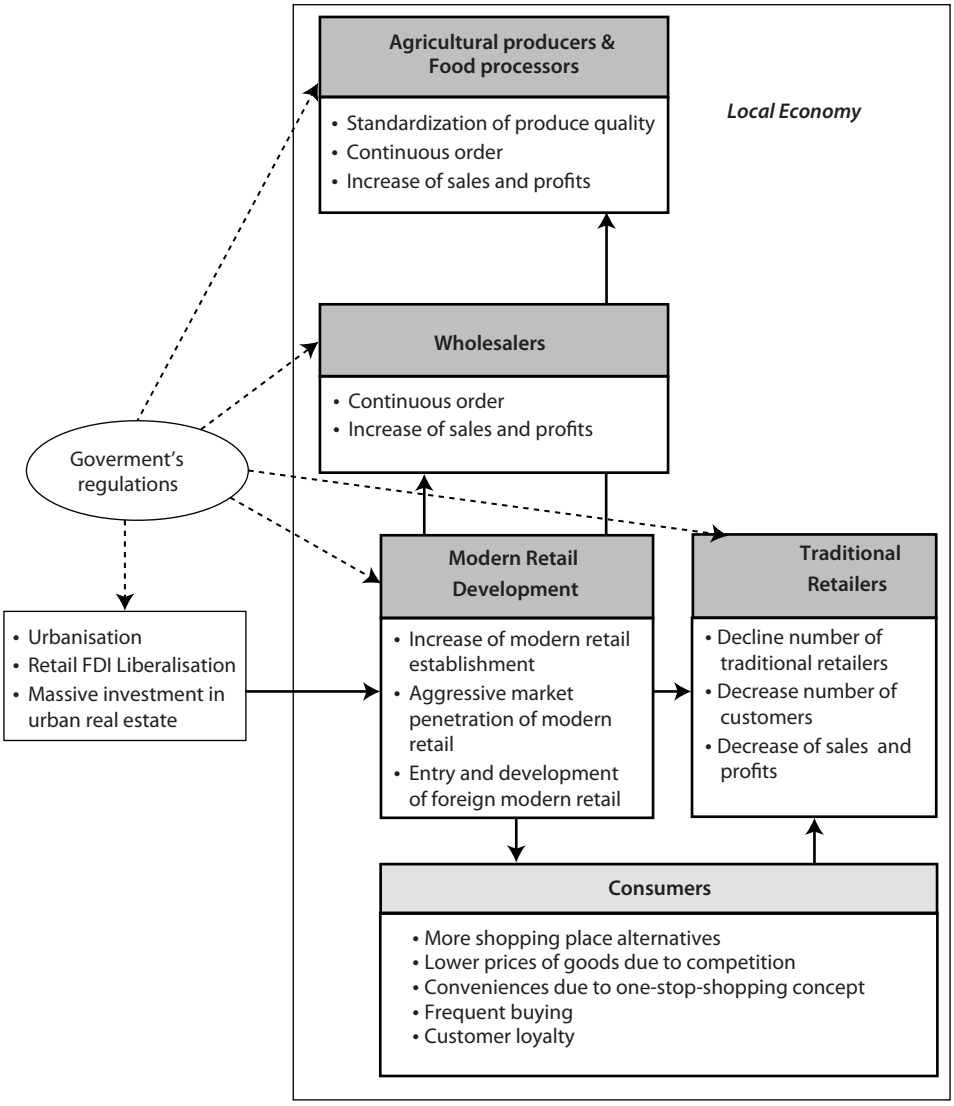
This study focusses on the impact of modern retail development on stakeholders/actors in a local economy measured by its impact on agricultural producers, local food processors, wholesalers, traditional retailers and also consumers. As producers, processors and wholesalers are able to fulfil the requirements set by modern retail, they will get continuous order, hence their sales and profits are expected to increase.

Modern retailers offer one-stop-shopping concepts to the consumers which make their shopping more convenient compared to the same activity at the traditional retailers. Consumers also have more choices of shopping places, which offer more benefits to them such as lower prices for some products, more variety of assortments, and interesting promotion in certain times e.g. discount, prizes, and seasonal sale. Large format modern retailers, such as Carrefour and Wal-Mart offer lower prices to attract consumers due to their bulk buying system and their operation efficiency, hence consumers enjoy the benefit from it.

As part of the value chain, modern retailers not only influence vertical relationships in the value chain network structure, but also horizontal relationships between modern retailers and traditional retailers. Traditional retailers have been facing a big challenge in order to survive and to compete with modern retailers otherwise they will continue loosing their market shares. However, traditional retailers perceive that modern retail, negatively influences traditional retailers. They experience decreased number of customers, sales and profits after the entry of modern retail.

The next section of this chapter presents hypotheses proposed in this study.

Figure 2.2 | Conceptual Framework



2.9 Hypotheses

We formulated hypotheses concerning the key actors in the upstream part of food value chain, which are represented by agricultural producers, local food processors and wholesalers which are proposed in this study and derived from the review of the relevant theories, and also hypotheses on consumers' preferences and traditional retailers. They are designed to explain the effects of modern food retail development, particularly super- and hypermarkets development in West Java.

2.9.1 Modern Food Retail Development and Agricultural Producers and Food Processors

The biggest share of modern food retail – super- and hypermarkets sales is processed foods, therefore, super- and hypermarkets are the main retail buyer in the supply chain of processed foods. However, in the meantime, the share of fresh fruits and vegetables (FFV) sold in super- and hypermarkets has risen and this makes the role of agricultural producers or farmers become more important in the supply chain of modern retail (Reardon and Berdeque 2002: 384: Natawidjaja et al. 2007: 17). Supermarkets also start playing an important role in the dairy sector through product innovation and a logistic system of large processors to induce rapid consumption of dairy products; therefore consumers start shifting their buying from small shops to supermarkets (Reardon and Berdeque 2002: 383).

There are several patterns of suppliers' participations in supermarkets due to the procurement systems of modern retail (Reardon and Hopkins 2006: 530): (1) supermarkets tend to get supplies of meats and dairy products and processed food from medium and large suppliers where they are available; (2) supermarkets tends to source fresh products from medium or large farmers, but, it is quite difficult to find the sources in developing countries; (3) supermarkets usually do not source directly from small farmers; and (4) if supermarkets must rely on small farmers, they usually are assisted with training, credit, and so on due to lack of needed assets. Medium or large producers are preferred because lower product transaction costs, ability to provide high variety of product types, attractive packaging, formality of invoicing needed for accounting, and brand development that attract some consumers (Reardon et al. 2010: 4). Small farmers have difficulties to meet the demand of the modern retailers due to lack of assets such as credit, information, education, and infrastructure (Natawidjaja et al. 2007; Reardon et al. 2010), and they found that they got higher incomes doing business with traditional retailers compare to modern retailers (Reardon and Berdegué 2002).

The development of supermarkets in Kenya has seen the emergence of a new group of medium-sized farms managed by well-educated farmers, which also found that farm size and irrigation were important determinants of farmers' participation in modern retail channel (Neven and Reardon, 2006: 118). The most significant contribution of farmers-modern retail relationship in Kenya was higher productivity level of land and labour, which is important to alleviate poverty for rural household with little or no land.

The existences of modern retail in Indonesia i.e. supermarkets and hypermarkets have influenced the supply chain of the food system, particularly agricultural producers and local food processors, due to modernisation of modern retail procurement system. Vedder and Cox (2006: 19) stated that, as consumers gain satisfaction from consumer surplus, producers also hope to gain benefit from added revenues by selling goods for more than the rock bottom minimum prices that they will accept, this is called producers' surplus. However, when large format modern retailers such as Wal-Mart and Carrefour enter the community, indigenous retailers have to reduce prices to stay in business. Consequently, producers may have to accept smaller margins if they still want to have huge account from big size stores and they find that their producer surplus is reduced.

Agricultural producers or farmers face challenges to meet the procurement standards of modern retail, that usually ask producers to meet the requirements of quality and safety standards, packing and packaging, cost, volumes, consistency, and terms of payment (Reardon and Berdequé

2002: 384). Dries et al. (2004: 37-38) found that the modernisation of procurement system will push a large share of farmers, and in particular small farmers, out of the market as they may find it hard to "make the grade" and sell to supermarkets. However, they found in their study that modern retail not only affects rural producers, but also has a larger impact on urban development. Finally, they concluded that modern retail development was likely to have important implications for supply chains and rural households which might bring very significant benefits to the region, but also posed significant threats where inefficient or undercapitalised farmers could not meet the requirements.

It is rarely to be found in developing country that farmers of fruits and vegetables, particularly small and medium farmers who directly supply to channels due to their inabilities to fulfill the requirements of quality and production consistency. Farm collectors, traditional wholesalers, specialised wholesalers, and traders collect or buy fruits and/or vegetables from farmers and distribute those goods to the retailers, hence, farmers only get small shares from this business. (Natawidjaja et al. 2007; Ahmad 2011).

Major products sold at super- and hypermarkets in developing countries, particularly in Asia, are dominated by processed foods, such as packaged foods, edible oils, and grains and semi-processed foods, such as meat and dairy. Modern retailers usually source processed and semi-processed food from medium and large-scale processors due to better positioning than small processors to meet super- and hypermarkets requirements (Reardon and Gulati 2008:1-2; Reardon et al. 2010: 3-4). Reardon et al. (2010) found that there are some reasons why modern retailers prefer to source processed and semi-processed food from medium and large-scale processor. Medium and large processors provide lower product and transaction costs, and they are able to diversity of product types in a one-stop shop with attractive packaging. Other reasons are that medium and large processors have formality of invoicing needed for value-added tax accounting and product ability, and for Asian consumers, their brand development is attracting. Medium and large processors also modernise their own distribution systems, having their own distribution centres and logistic systems. (Reardon et al., 2010: 4). It is usually far from business for small farmers and food processors to sell their products to super- and hypermarkets. Super- and hypermarkets require larger volume and coordination among suppliers and between suppliers and retailers, while super- and hypermarkets are more demanding as to quality and safety standards (Weatherspoon and Reardon 2003: 1).

With regards to the previous studies, this study proposes hypotheses that focus on examining whether agricultural producers and local food processors gain benefits from the development of modern food retail (H1 and H2):

H1: Agricultural producers benefit from the development of modern food retail
H1a: Small farmers benefit from the development of modern food retail
H1b: Medium farmers benefit from the development of modern food retail
H1c: Large farmers benefit from the development of modern food retail
H2: Local food processors benefit from the development of modern food retail
H2a: Small processors benefit from the development of modern food retail
H2b: Medium processors benefit from the development of modern food retail
H2c: Large processors benefit from the development of modern food retail

2.9.2 Modern Food Retail Development and Wholesalers

The role of wholesaler in modern food retail value chain is interesting to be studied. During the 1990s and before, supermarkets in developing countries usually used traditional procurement systems with following characteristics; (1) each store procure its own products or one store used as entrepÔt for a few neighboring stores, (2) products were procured in spot markets at the traditional wholesale markets than on contracts with suppliers, (3) retailers relied on public quality and safety standards where they existed (Reardon et al. 2010: 4; Reardon 2005: 12-13; Reardon and Berdequé 2006: 14). However, supermarkets found that traditional wholesale system has some disadvantages; (1) low or no standard for quality and/or safety, (2) inconsistent volume and quality, (3) high transaction costs due to use of many small brokers (Reardon and Berdequé 2006: 14).

As supermarkets modernise their procurement systems, there are increasing use of specialised and dedicated wholesalers (specialised in product lines and dedicated to modern retail) that can be outside the supermarket chain or can be 'in-house' in the chain (Reardon et al. 2010: 1; Reardon 2005: 13; Reardon and Gulati 2008: 2). Specialised and dedicated wholesalers benefit modern retail as agents of selection among farmers in order to maximise quality and minimise costs of product sorting, and loss from damage from low quality produce and transaction costs from dealing with inconsistent quality and volumes (Natawidjaja et al. (2007: 7).

The Natawidjaja et al. (2007: vii) study in Indonesia found that leading super- and hypermarket chains still source fruits from large importer wholesalers, but the chains increasingly source vegetables from specialised, capitalised, and dedicated wholesalers, while for some products they use outgrower schemes via growers/packers/shippers. In spite of dynamic development of the wholesale sector, due to the booming of horticulture in Indonesia, farmers have little opportunity to sell their produce graded by different qualities, which means that there still is little to no rewards for farmers to produce quality, but the whosalers sell by grades and capture the profit differences (Natawidjaja et al. 2007: viii).

Considering that wholesalers are increasingly used in the modern food retail supply chain, particularly in Indonesia, this study proposes a hypothesis (H3):

H3: Wholesalers benefit from the development of modern food retail

H3a: Vegetables wholesalers benefit from the development of modern food retail

H3b: Fruit wholesalers benefit from the development of modern food retail

2.9.3 Modern Food Retail Development, Value Chain and Local Economic Development

Food is an important part of some countries economies, particularly when the majority of household spending goes to food. Indonesia, as an example of a country that spends 55 percent of household expenditures on food, shows that changes in the food economy have a major impact on the overall development of Indonesia and the well-being of its people (Natawidjaja et al. 2007: 1).

The food system is closely related to the agricultural system and the local economy, which means that a more sustainable food and agriculture system, focussed on local markets, can contribute to the society (Natawidjaja et al. 2007; Conner, Knudson, Hamm and Peterson 2008). However, the food system does not only involve the producers e.g. agriculture producers and consumers or societies, but

also retail companies at the bottom of the economic food chain (Brammer and Tomasik 1995). Their framework proposes that retail development makes local economy larger and more self-sufficient by keeping retail purchases inside the local economy.

Retailing plays an important role in encouraging economic growth through preventing the leakage of money by providing facilities that stimulate people not to travel out the area to acquire that service. Retail counts as an economic development, when retail performs as a basic sector function as an export activity, by bringing income or money into locality and at the same time keep the money within the area (Pittman and Culp 1995: 5; Williams 1996: 54; Gibson et al. 2003: 50).

The development of a food system in a country is indicated by the growth of modern food retail such as supermarkets in urban areas. The development of modern food retail brings some economic benefits to the local economy, e.g. tax revenue, jobs and incomes, increase of productivity, increase of standard of living, value increase of land and building, and decrease of prices which give more benefits to consumers (England 1997; Pittman and Rhonda 1995; Brammer and Tomasik 1995; Phillips 2000, Basker 2005).

Retail development as a strategy to boost the local economy reflects the development of a (food) value chain, which is considered important to upgrade small producers, to improve income and employment, and to alleviate poverty (Helmsing and Vellema 2011: 4,18; Van Dijk and Trienekens 2012: 10). It is important to define the outcomes of development in terms of benefits for or enhanced capabilities of actors on the upstream side of the value chain (Helmsing and Vellema 2011: 4). Value chains are not just focussing on the physical flows of products and materials and the transformation of raw materials, but value chains connecting different value creating activities to achieve a position in end-use markets. The behaviour of a lead firm or a lead agent is a key factor in managing the interdependencies, that usually this actor has the capacity to set barriers to entry and to regulate and coordinate the behaviours of others (Helmsing and Vellema 2011: 4). Super- and hypermarkets in this case have capacities to become the lead agent in the food value chains and their developments. Kaplinsky (2000:21) presented a case of fresh fruit and vegetables sector as the example of a value chain development. As large retailers entered the market for fresh fruit and vegetables seriously, they began to set new critical success factors in the industry such as quality, product consistency, supply reliability, price and external health and environmental standards. The development posed new challenges for growers and wholesalers, particularly those in developing countries who were unused to the cricital success factors in high income markets.

Considering that there are increasing complexities in the economies and problems of co-ordination among actors in the economy have multiplied, while uncertainties about outcomes have increased, new forms of governance are required, both between firms, as well as between firms and territorial or public agencies (Helmsing 2001: 295). In the case of fresh fruit and vegetables value chains, Kaplinsky (2000: 21) describes the governance of the value chain. The retailers set standards (legislative governance) and demand that compliance be audited by the category managers, who in turn make similar demands of export agents located in producing countries (judicial governance). The third governance role (executive governance) is performed by a combination of developing country based exporters, and the category managers based in final markets.

In the case of how value chains developments promote the spreading of gains to low income producers, Kaplinsky (2000: 31) suggests upgrading within links in the value chains, which needs special action and assistance for small growers and small producers in the fresh fruit and vegetables sectors. To understand the development impacts, Helmsing and Vellema (2011: 21) suggest that we need to focus on processes linking the interventions and value chains to the circumstances in specific territories, as well as on the ways in which interventions and value chains affect the situation of different groups, in particular farmers, workers, and small and medium enterprises.Based on these studies, we propose the following hypothesis (H4):

H4: The development of modern food retail positively influences actors on the upstream side of the food value chain

2.9.4 Modern Food Retail Development and Consumers Shopping Behaviour

Literature on retailing shows that there are several reasons for customer switching behaviour: convenient location, changes in pricing, range of assortment, comfort services, quality, store environment, competition, ethical problems, and involuntary switching (Seiders and Tigert 2000; Arnold, Tae and Tigert 1983; Louviere and Garth 1987; Eagle 1984). Switching costs plays an important role in a customer's decision to change. A new entrant who has a greater competitive advantage by bringing noticeable distinction with lower switching costs, acquires a bigger portion of the switcher segment (Seiders and Tigert 2000).

A study of consumer perceptions on the hypermarket and traditional stores in Portugal showed that consumers prefer to buy convenience goods or low involvement goods from the hypermarkets because they offer more benefits regarding prices, promotions, assortment, novelties, and schedules (Farhangmehr et al. 2000). However, for high involvement goods, such as household appliances, consumers prefer to buy those goods from traditional retail stores considering the benefit of saving time spent on shopping. Farhangmehr's et al. (2000) study finds that there is no loyalty to a single retail format, that proves that consumers prefer to buy in hypermarkets; they also buy in several outlets and not exclusively in the hypermarket.

Modern retailer strategies take advantage of consumer ambiguity to shift consumer preferences in their favour. In another words, modern retailers may influence or even change consumer preferences (Seiders and Tigert 2000). By modelling price and cost structures of grocery retailers, Setala (2000) found that modern large grocery retailers achieved store level economies, where both costs and prices were lower than small stores, and consumers enjoyed this benefit. Location, transportation cost, and household size determine the consumer's utility; these large households are the ones that gain the main benefit from modern large retailers. However, the situation may not be the same in other local markets.

As consumers are asked to compare small stores versus big stores, they display interesting perceptions of both types. Uusitalo's (2001) study found that consumers perceive a small store is attractive because shopping there is efficient, fast, and simple. Accessibility, familiarity, and intimacy are important factors, which encourage consumers to shop in small stores. Big stores, which are usually located in city centre, are associated with a wide variety of goods, encompassing a lot of

walking and searching, and buying more goods at a lower price. Some consumers feel that shopping in big stores is convenient , however they compensate their extra walking in a big store space by its one-stop-shopping concept. An interesting experience through service and merchandise becomes a major consideration, that causes consumers to show willingness to accept extra travel efforts to buy grocery and fresh goods (Sinha and Banerjee 2004). However, their research in the Indian retailing sector found that the most important factor in attracting consumer loyalty for grocery stores was proximity, not the store atmosphere.

There are some interesting findings regarding consumer's perception of traditional and modern retailers. A study of the traditional market (wet market) versus the supermarket in Hongkong found. that consumers perceived wet market and supermarket as complementing one another and both being equally important (Goldman et al. 1999). While wet markets offered more advantages than supermarkets in fresh food, consumers complained about the store/market environment, which did not have adequate convenience to do their shopping comfortably. Even though large modern retailers with mass merchandise sell the same products as traditional grocers, there is no direct substitution relationship between traditional grocery retailers and mass merchandisers (Fox et al. 1994).

A study of consumers preferences concerning small retailers in Latin America (D'Andrea and Lopez 2006) shows that consumers do not prefer to buy in super- or hypermarkets for a number of reasons. First, they need to spend extra time and money for transportation as they must travel comparatively further to get to those stores. The second reason is that consumers do not like the way large retailers's staff treat them. Finally, consumers perceive small retailers are cheaper than the large ones. However, customer perceptions of indirectly competing stores differ between primary and secondary store loyaly (Mitchell and Kiral 1998).

Recent studies on the impact of modern retailers on store preferences in West Java, Indonesia (Sunanto and Tuninga 2009; Sunanto et al. 2010) found that the opportunity to bargain and indulge in personal relationships between sellers and buyers is the main reasons why people still prefer to buy goods at a traditional market rather than at a modern market (Sunanto and Tuninga 2009). Consumers switched their buying preferences from traditional retailers to modern retailers, particularly supermarkets, due to convenience, assortment, and cleanliness. The one- stop-shopping concept becomes a competitive advantage, offered by modern retailers to attract consumers to switch their buying preferences from traditional retailers to modern retailers (Sunanto et al. 2010).

With regards to previous studies, this study proposes hypotheses which elaborate consumer's store preference for buying goods in the grocery category after the entry of modern retailers:

H5a: Consumers have shifted their store preferences for fresh goods after the entry of modern retailers;

H5b Consumers have shifted their store preferences for staple goods after the entry of modern retailers;

H5c: Consumers have shifted their store preferences for foods and beverages after the entry of modern retailers;

H5d: Consumers have shifted their store preferences for toiletries and other goods after the entry of modern retailers.

2.9.5 Modern Food Retail Development and Traditional Retailers

A previous study on large retailer impact on the performance of existing retailers showed that there was such rapid market penetration in the initial growth stage, that is caused a decline in the sales of local retail stores, and growth and decline in various commercial sectors caused by large retailer entry (Arnold and Luthra 2000). Where the large retailers penetrate markets aggressively, indigenous retailers experience a decline in sales, market share, and profits. Research on the Wal-Mart entry in the East Coast region of the US shows that local supermarkets lost 17% in sales volume amounting to a quarter of a million dollars of monthly revenue following Wal-Mart's entry (Singh et al. 2004).

Study on the entry of hypermarkets in Malaysia shows that traditional outlets such as independent grocers and mini-markets gradually closed. Emergence of modern retailing such as super- and hypermarkets filled this gap (Shamsudin and Selamat 2005). Local traditional retailers face intense competition from foreign hypermarkets and try hard to maintain their customers; however, they experience declining sales with low turnover.

Most of local and traditional retailers face difficulties in competing with large format retailers as indicated by a declining market share, sales, and profit (Hernandez 2003; Peterson and McGee 2000, Seiders and Tigert 2000; Farhangmehr et al. 2000; Arnold and Luthra 2000; Vance and Scott 1994). This phenomenon does not only happen in the host market, but also in the neighbouring markets. The impact of the entry of large format retailers, such as Wal-Mart may change not only the total sales, but also the distribution of sales through the various types of retail categories in the host community where Wal-Mart exists (Davidson and Rummel 2000; Stone 1995).

Stone's study (1995) finds that all retail categories except food or grocery stores in the non-Wal-Mart towns were negatively affected after five years of Wal-Mart's entry. There are two rules of thumbs recommended by Stone:

1) Merchants selling items that differ from those sold by the large format retailers will probably not experience a loss of sales. In fact, if these stores are in close proximity to the discount stores, they experience an increase in sales after the discount store opens because they benefit from the "spillover" of the additional traffic generated by the discounter.
2) Merchants selling the same things that the large format retailers are selling will probably experience a decrease in sales after the discounter opens. This applies not only to merchants in the local area, but those in the neighbouring areas.

Davidson and Rummel (2000) also find that Wal-Mart neighbouring towns experienced a decline or only small increases in retail trade during the same period with the Wal-Mart host towns. Other research supported the facts that the entry of large format retailer stimulates growth in certain retail categories, but leads to a decline in other categories (Arnold and Luthra 2000; Stone 1995). Based on those previous studies, this study proposes a hypothesis:

H6: Modern food retail development negatively influence traditional retailers performances.

3 Research Methods

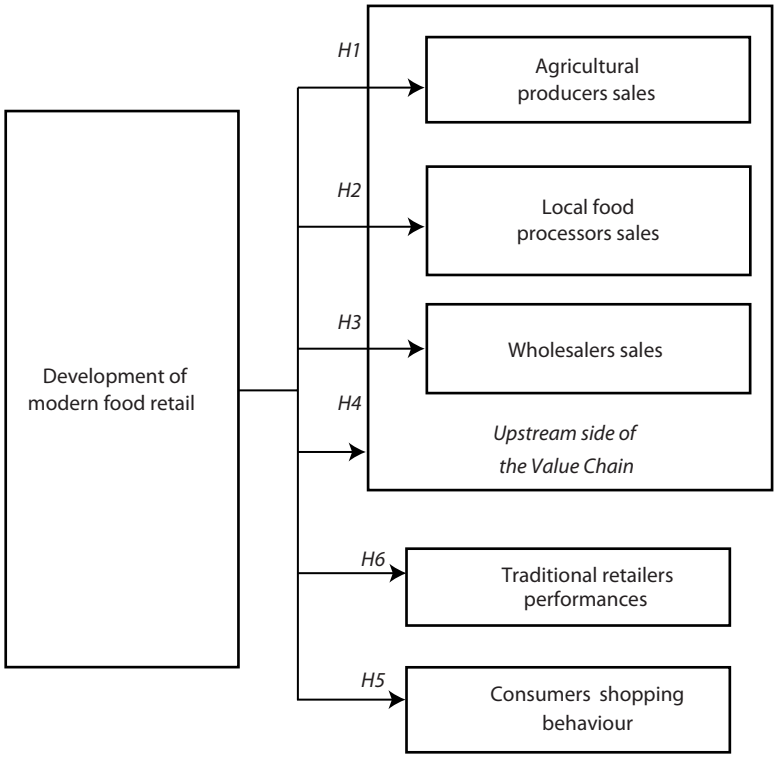
3.1 Introduction

This chapter presents research methods used in this study started with the definition and operationalisation of variables presented in the analytical framework. Next, research design is presented to describe unit of analysis, sample, data collection methods, and general analytical model to test the hypotheses proposed in chapter 2.

3.2 Analytical Framework, Variabel Definitions and Operationalisation

The analytical framework below (Figure 3.1) shows the development of modern food retail as the independent variable influenced by stakeholders/actors in the local economy where super- and hypermarkets present. Agricultural producers, local food processors, wholesalers, traditional retailers and consumers are stakeholders/actors in West Java's local economy studied in this research. Four hypotheses will be tested in this framework to get answer the questions on agricultural producers (H1), local food processors (H2), wholesalers (H3), and actors on the upstream side of the value chain (H4) benefit from the development of modern food retail, and two hypotheses tested (H5 and H6)) will answer whether consumers preferences and traditional retailers performances are also influenced by the development of modern food retail.

Figure 3.1 | Analytical Framework



3.2.1 Variable Definition and Operationalisation

There is one independent variable and six major dependent variables are used to test the proposed hypotheses in this study, which defined and operationalised below:

- Modern food retail development
  Modern retail refers to a modern store that sells variety of goods to consumers using self-service system (Presidential Decree-PP no.112/2007), and food sector contributes the largest share. There are two types of major modern food retail studied in this study -super- and hypermarket. The development of modern food retail in this study is treated as independent variable, which is defined as the growth of super- and hypermarkets in terms of turnover in Bandung, West Java. This variable is measured by leading modern food retailers sales value of fruits, vegetables, meat, and dairy product in West Java.
- Agricultural producers sales
  Agricultural producer in this study is local fruits and vegetables farmers who sell their produces to super- and hypermarkets in West Java. As the first dependent variable, agricultural producers sales refers to the benefits gained by farmers from doing business with super- and

hypermarkets, which are measured by sales value of fruits and vegetables ordered by super- and hypermarkets in West Java to those farmers.

- Local food processors sales
  The second dependent variable is local food processor sales, which is measured by sales value of processed meat and dairy products produced by local food processors and sold to the super- and hypermarkets in West Java. This study categorises local food processors as local companies that supply their produces - processed meat and dairy products to super- and hypermarkets in West Java.
- Wholesalers sales
  Wholesaler in this study refers to independent merchants who buy or collect fruits and vegetables in large volume and supply those produces to super- and hypermarkets in West Java. Wholesaler sales as the third dependent variable is measured by sales value of fruits and vegetables ordered by super- and hypermarkets in West Java.
- Actors on the upstream side of food value chain
  This dependent variable is defined as all actors on the upstream side of the food value chain (producers, processors and wholesalers) who managed to become the source of suppy of super- and hypermarket and have benefited from the development of those modern food retailers. This variable is measured by total sales of agricultural producers, local food processor and wholesalers to the super- and hypermarkets in West Java within a period of time.
- Consumer shopping behaviour
  This variable is operationalised into two sub-variables – consumers store preferences and consumers perceptions on store attributes after the entry of modern food retail.
- Traditional retailers performances
  This variable measures any changes in sales and number of buyers of traditional retailers after the entry of modern food retail.
  In sum, the operationalisation variables of this study is presented in Table 3.1 as below:

Table 3.1 | Operationalisation Variables

Variables	*Definition*	*Indicators*	*Scale*
The development of modern food retail(Independent)	Growth of super- and hypermarkets	Sales value of fruits, vegetables, meat, and dairy product	Ratio
Agricultural producer profit (Dependent 1)	Benefits gained by fruits and vegetables farmers	Sales value of fruits and vegetables sold to super- and hypermarkets	Ratio
Local food processor profit (Dependent 2)	Benefits gained by meat and dairy processors	Sales value of meat and dairy products sold to super- and hypermarkets	Ratio
Wholesaler profit (Dependent 3)	Benefits gained by fruits and vegetables wholesalers	Sales value of fruits and vegetables to super- and hypermarkets	Ratio

Variables	*Definition*	*Indicators*	*Scale*
Actors on the upstream side of the food value chain (Dependent 4)	Total benefits gained by producers, processors, and wholesalers who managed to become suppliers of super- and hypermarkets	Total sales value of agricultural producers, local food processors, and wholesalers that sell their produces to super- and hypermarkets	Ratio
Consumers shopping behaviour	Shopping behaviour is a self-conscious activity involving people when examining or purchasing goods or services, which can be a single act or a set of interrelated unit acts, which may produce positive or negative benefits for the individual (Darden and Dorsch, 1990).	– Consumers store preferences after the entry of modern food retail – Consumers perceptions on strore attributes of modern food retailers	– Nominal – Ordinal
Traditional retailers performances	The outcome or achievement of indigenous retailers' business strategies/offerings to the market	Number of buyer and sales changes after the entry of modern food retail	Nominal

3.3 Unit of Analysis, Sampling and Data Collection

There are six units of analysis observed and surveyed in this study: 1) modern food retail represented by super- and hypermarkets; 2) consumers; 3) agricultural producers which represent fruits and vegetables farmers; 4) local food processors of meat and dairy; 5) fruits and vegetables wholesalers; and 6) traditional retailers. Survey was performed in Bandung, West Java due to following reasons; Firstly, as the capital of West Java province, Bandung is a potential market for retail business hence the growth of modern food retail in this area is high during the last decade. Secondly, Bandung is the main centre of distribution of horticultural production, and poultry from producers in West Java to all cities/towns in West Java and also surrounding areas.

There are four supermarket chains in Bandung –Yogya, Borma, Superindo, and Giant, and four hypermarkets – Carrefour, Hypermart, Giant, and Lotte Mart. Samples of super- and hypermarkets are a local supermarket chain, a national supermarket chain and a hypermarket located in Bandung. Interviews were conducted to procurement managers and an owner of each super- and hypermarket selected as samples of this study between January-March 2012 in Bandung and Jakarta.

The author raised two main questions in the interviews. The first question relates to the procurement system in their super- and hypermarkets, in particular, the procedure of finding suppliers and evaluating suppliers' performances. The second question refers to their sales of fresh goods, in this case the sales of fruit, vegetables, local dairy products and meat processed products. They were asked to provide monthly sales data of those goods, which were supplied by local producers, local processors and wholesalers during 2002-2010.

There are 476 dairy processors, 789 meat suppliers (meat producer, meat processor, and wholesaler), 463 fruit farmers and wholesalers, and 1,121 vegetables farmers and wholesalers supply their products to super- and hypermarkets in Bandung and surrounding areas. This study collected monthly sales data during 2002-2010 from 60 local food processors (49 dairy processors and 11 meat

processors), 36 agricultural producers (28 vegetables farmers and 8 fruits farmers) and 104 vegetables and fruits wholesalers (64 vegetables wholesalers and 40 fruits wholesalers).

Interviews were conducted to farmers, local food processors, and wholesalers to obtain information on their relationships with their customers, in this case are super- and hypermarkets and also their product sales to super- and hypermarkets in 2002-2010. Interviews were conducted for six months (January-June 2012) in West Java area such as Lembang and Bandung, and also in Jakarta for a few producers.

A survey on consumers in West Java was conducted to investigate shopping behaviour changes after mini-, super- and hypermarkets entries. 550 consumers in three cities were selected as samples and they were asked to fill in the questionnaire. Structured interviews using questionnaires were conducted to 250 consumers in Bandung, 150 consumers in Bogor, and 150 consumers in Depok. There was a team coordinated by author that was responsible for the data collection. The team consists of four undergraduate students from Universitas Katolik Parahyangan, Bandung (UNPAR) who delivered the questionnaires in Bandung and four undergraduate students from Universitas Indonesia (UI), Depok who were responsible for getting the data in Bogor and Depok. All surveyors were provided with a training before doing the survey even though they were all have experiences in doing surveys. This survey started in the first week of June, 2009 and it finished by the end of July, 2009.

A desk research was also conducted to households in Bandung using the data of household monthly spending on food items (meat, fruits and vegetables, egg and milk, processed foods and beverages) and non-food items (fashions, durable goods, education, and transportation). Data were collected from the national social economic census in 2002-2010 after the entry of a hypermarket in Bandung.

The findings of this survey will be presented in chapter 4 and there was an article published in the Asian Journal Business Research and some articles published in conference proceedings based on this survey.

Chapter 7 presents the findings of a study on modern food retail development and traditional retailers in West Java. 300 traditional retailers were selected as samples in a survey conducted in the same cities with consumers survey. Using a structured questionnaire, the surveyors team consists of same people who did the consumer survey interviewed 150 traditional retailers in each city. Data collection started in early of June, 2009 and it took two months to get all data needed for this survey. The finding of this survey was not only published in the AJBR, but also in some conference proceedings.

Data coding for both surveys were performed by author and two undergraduate students from UNPAR. The quality control of data collected from both consumers and traditional retailers surveys was performed by the author, except for data of household spending from the national social economic census. The statistical bureau, Biro Pusat Statistik (BPS) was the one who responsible for quality control of the data. The author did the quality control together with owners and/or managers for data collected from farmers, local food processors and wholesalers. All data are available in digital files, and not presented in this thesis due to large amount of data.

Table 3.2 summarizes each unit of analysis, sample of each unit and data collection methods used in this study.

Table 3.2 | Unit of Analysis, Sample and Data Collection Method

No.	*Unit of Analysis*	*Sample*	*Data Collection Method*
1	Super- and hypermarkets in Bandung, West Java	– one local chain supermarket – one national chain supermarket – one hypermarket	– Interview – Desk research
2	Consumers/Households in West Java	– 550 consumers in three cities – 2000 households in Bandung	– Survey using questionnaire – Desk research
3	Agricultural producers (farmers)	– 36 agricultural producers (28 vegetables farmers and 8 fruits farmers)	– Interview – Survey
4	Local food processors	– 60 local food processors (49 dairy processors and 11 meat processors)	– Interview – Survey
5	Wholesalers	– 64 vegetables wholesalers – 40 fruits wholesalers	– Interview – Survey
6	Traditional retailers	– 250 traditional retailers in West Java (traditional markets, kiosks, street hawkers)	– Survey using questionnaire

The summary of data collection activities is presented in table 3.3. below:

Table 3.3 | Summary of Data Collection Activities

No.	*Activitiy*	*Time*	*Place*	*Surveyor/Data Collector*	*Quality Control*	*Data Coding*
1	Consumer survey	June-July 2009	– Bandung – Bogor – Depok	– 4 undergraduate students from UNPAR – 4 undergraduate students from UI	– Sandra Sunanto	– Sandra Sunanto – 2 under-graduate students from UNPAR
2	Traditional retailer survey	June-July 2009	– Bandung – Bogor – Depok	– 4 undergraduate students from UNPAR – 4 undergraduate students from UI	– Sandra Sunanto	– Sandra Sunanto – 2 under-graduate students from UNPAR
3	Consumer desk research	January 2012	– Jakarta – Bandung	– National Social Economic Census 2002-2009	– Biro Pusat Statistik (BPS)	– Sandra Sunanto
4	Modern retail survey	January-March 2012	– Bandung – Jakarta	– Sandra Sunanto	– Sandra Sunanto – Managers of selected super- and hypermarket	– Sandra Sunanto

No.	Activitiy	Time	Place	Surveyor/Data Collector	Quality Control	Data Coding
5	Agricultural producer survey	January-June 2012	– Bandung – Lembang – Jakarta	– Sandra Sunanto	– Sandra Sunanto – Owners/Managers	– Sandra Sunanto
6	Local food processors survey	January-June 2012	– Bandung	– Sandra Sunanto	– Sandra Sunanto – Owners/Managers	– Sandra Sunanto
7	Wholesalers survey	January-June 2012	– Bandung	– Sandra Sunanto	– Sandra Sunanto – Owners/Managers	– Sandra Sunanto

3.4 General Analytical Model

According to the characteristics of the variables and the hypotheses, the empirical studies will be implemented using the statistical software SPSS and consist of following sessions.

1) Hypothesis 1 (a,b,c) testing.
A linear regression will be conducted to test the hypothesis 1 (a,b,c). The regression function is given as below:

$$y1(a,b,c)=b_1+b_2x \quad (3.1)$$

where y is the agricultural producers sales; y1a is the small farmers sales; y1b is the medium farmers sales; and y1c is the large farmers sales, and x is the modern food retail development. Considering that modern food retail development positively benefit the agricultural producers, hypothesis 1 will be accepted if significance value is below 0.05 (using α=95%).

2) Hypothesis 2 (a,b,c) testing.
Hypothesis 2 proposes that local food processors benefit from the development of modern food retail. The general regression function is given as below:

$$y = b_3+b_4x \quad (3.2)$$

where y is the local food processors sales; y2a is the small local food proessors sales; y2b is the medium local food processors sales; y2c is the large local food processors sales, and x is the modern food retail development.
Using α=95%, hypothesis 2 will be rejected if significance value is above 0.05 which means that the development of modern food retail does not benefit the local food processors.

3) Hypothesis 3 (a,b,c) testing

Hypothesis 3 investigates whether wholesalers, as part of modern food retail supply chain benefit from the development of modern food retail. The regression function is given as below:

$$y = b_5 + b_6 x \tag{3.3}$$

where y is the wholesalers sales of fruits and vegetables; y3a is vegetables wholesaler sales; y3b is fruit wholesaler sales, and x is the development of modern food retail.

Using the same α with previous two hypotheses, hypothesis 3 will be accepted if significance value is below 0.05, otherwise it will be rejected.

4) Hypothesis 4 testing

This hypothesis will be answer the major research question of this study whether the modern food retail development positively contributes to actors on the upstream side of food value chain. The regression function is given as below:

should it be 3.4?

$$y = b_7 + b_8 x \tag{3.4}$$

where y is the actors on the upstream side of food value chain, and x is the development of modern food retail.

Variable y will be measured by counting total sales value of agricultural producers, local food processors, and wholesalers to super- and hypermarkets in Bandung, West Java. Using α=95%, hypothesis 4 will be accepted if significance value is below 0.05, otherwise it will be rejected.

5) Hypothesis 5 (a.b.c.d) testing

There are four hypothesis related to the shift of consumers store preferences from traditional retailers to modern retailers due to the entry and development of modern retailer in West Java. Using binary dependent variable, McNemar test is used to test whether consumers shift their store preferences for fresh goods (H5a); staple goods (H5b); foods and beverages (H5c); and toiletries and other goods (H5d) to modern retailers after the entry of mini-, super- and hypermarkets.

To compute McNemar's the following formula is used:

$$\text{McNemar's } \chi^2 = \frac{(c-b)^2}{c+b} \tag{3.5}$$

c,b and d come from labelling the cells in the table below:

		After entry	
		Traditional retailers	Modern retailers
Before entry	Traditional retailers	a	b
	Modern retailers	C	d

6) Hypothesis 6 testing

Chi-square non parametric test is used to the test the hypothesis on traditional retailers performances using formula below:

$$\chi^2 = \sum_{i=1}^{k} \frac{(o_i - e_i)^2}{e_i} \tag{3.6}$$

If then reject the null hypothesis.

In sum, Table 3.4 presents the relation of research questions, variables, hypotheses, and statistical analysis performed to test the hypotheses.

Table 3.4 | Research Questions, Variables, Hypotheses and Statistical Analysis

Research Questions	*Variables*	*Hypotheses*	*Statistical Analysis*
1. What are the effects of modern food retail development, in particular the rise of super- and hypermarkets in West Java on actors on the upstream side of food value chain?	– Independent variable: Modern food retail development – Dependent variable: Sales of agricultural producers, local food processors, and wholesalers	The development of modern food retail positively influences actors on the upstream side of food value chain	Regression
2. What are the impacts of modern food retail development on consumers? Do consumers benefit from the development of modern food retailers?	– Independent variable: Modern food retail development – Dependent variable: Consumers shopping behaviour and perceptions	The entry and development of modern retail shift consumers store preferences from traditional retailers to modern retailers	– McNemar test
3. What are the effects of modern food retail development on agricultural producers? To what extent do they benefits from doing businesses with modern retailers?	– Independent variable: Modern food retail development – Dependent variable: Agricultural producers sales	Agricultural producers benefit from the development of modern food retail	Regression
4. What are the effects of modern food retail development on local food processors? To what extent do they benefits from doing businesses with modern retailers?	– Independent variable: Modern food retail development – Dependent variable: Local food processors sales	Local food processors benefit from the development of modern food retail	Regression

Research Questions	*Variables*	*Hypotheses*	*Statistical Analysis*
5. What are the effects of modern food retail development on wholesalers? To what extent do they benefits from doing businesses with modern retailers?	– Independent variable: Modern food retail development – Dependent variable: Wholesalers sales	Wholesalers benefit from the development of modern food retail	Regression
6. What are the impacts of modern food retail development on traditional retailers?	– Independent variable: Modern food retail development – Dependent variable: Traditional retailers performances	The entry and development of modern retail negatively influence traditional retailers' performances	– Descriptive – Chi-square test

4 Trends in Retail Development in Indonesia[1]

4.1 Introduction

The Asian financial and political crisis in 1997 changed the economic conditions of some countries in this region, and Indonesia experienced the most serious economic impact. In November 1998, Indonesia had a 78.2 percent retail price inflation, with the consumer price index went up as high as 75 percent within a period of one year in 1998.

At the end of 1998, unemployment had risen to 15-20 million people (15 percent of the workforce), and 80 million people (40 percent of the population) were below the poverty line. The Indonesian retail sector reported a 30 percent decrease in total retail sales in 1998 caused by a diminishing consumer purchasing power followed by changes in retail shopping behaviour. In big cities, like Jakarta, consumers changed their shopping patterns for groceries from buying at the supermarkets for extended periods of a week or more, to day-to-day buying at small shops.

In response to this crisis, Indonesian government signed a Letter of Intent (LOI) with the International Monetary fund (IMF) in January 1998 to receive financial support. One of the clauses in the LOI was the liberalisation of the retail market, which means that Indonesia has to open its market for foreign retailers who are interested to open their stores in this country. Consequently, retail liberalisation has caused intense competition in the retail business, which negatively has affected small and traditional retailers.

Aggressive market penetration of foreign modern retail in Indonesia after 1998 was supported by government policies of trade globalisation, particularly in the retail sector that allows foreign modern retailers to enter and to compete with local retailers. Before the retail liberalisation, foreign modern retailers entered the market through the franchise system, and after 1998, each foreign modern retailer must have a local partner to operate its business in this country. De facto, foreign modern retailers were able to obtain local retailers due to their financial strength. For example, one of the major local modern retailers, Hero, was acquired by the Dairy Farm International (Hongkong) and subsequently acquired almost fully TOPS supermarkets owned by the Royal Ahold Group, the Netherlands.

[1] Chapter 4 is part of the project funded by the Indonesia General Directory of Higher Education through Competitive Research Grant in 2009-2010, and published in:
– Sunanto, S. (2011). "Modern Retailers and Consumer Shopping Behavior: A Study in West Java, Indonesia", Proceeding of the Marketing Asia Pacific Group (MAG) Scholar Conference, Wellington, New Zealand.
– Sunanto, S. (2012). "Modern Retail Impact on Store Preference and Traditional Retailers in West Java", Asian Journal of Business Research vol. 2 no. 2: 7-23.

The existence of foreign modern retail in Indonesia has led to the emergence of some controversies especially after Carrefour and Giant entered the market in 1998 and 2002. Some researchers show negative impact of modern retail on traditional markets and local suppliers (Singh et al. 2004; Shamsudin and Selamat 2005; Dries et al. 2004; Natawidjaja et al. 2007; Ahmad 2011 Until June 2005, foreign retailers have obtained 9.1% of market share of national stores with convenience stores (39.2%) and supemarkets (29.9%) dominate the market (Table 4.1). Local retailers dominate the market with the mini market format (54.1%).

Rapid growth of modern food retailing business in Indonesia has been dominated by hyper- and mini-markets growing on the average of 36 and 23% per year between 2004 and 2006, compared to the growth of traditional retailing, which grew only 2 percent on average between 2004 and 2006 (Table 4.2).

Table 4.1 | The Composition of Foreign and Local Retail Stores, 2001-2005

Format	*Foreign Retail*				*Local Retail*			
	2001 (June)	*%*	*2005 (June)*	*%*	*2001 (June)*	*%*	*2005 (June)*	*%*
Hypermarket	20	12.3	26	12.7	21	1.3	21	0.95
Supermarket	49	30.2	61	29.9	530	32.9	539	24.32
Department Store	15	9.3	11	5.4	402	24.9	419	18.91
Minimarket	8	4.9	26	12.7	633	39.3	1,199	54.11
Convenience Store	70	43.2	80	39.2	26	1.6	38	1.71
Total	162	100	204	100	1,612	100	2,216	100
TOTAL: Foreign vs Local	162	9.1	204	8.4	1,1612	90.9	2,216	91.6

Source: BisInfocus (2006)

Table 4.2 | Indonesia Retail Structure

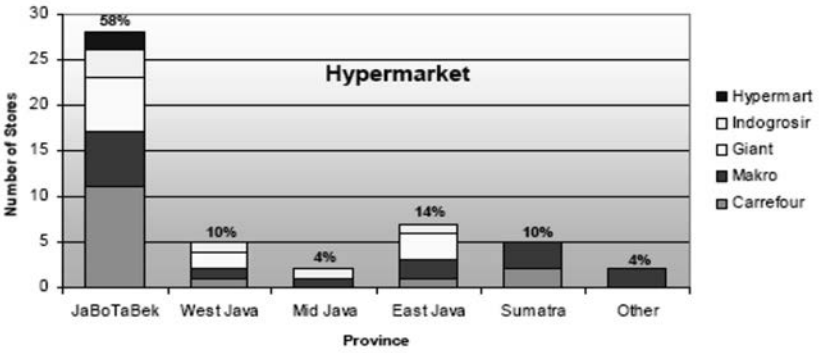
Year	*Traditional Grocery Stores*	*Supermarket*	*Mini-Markets*	*Hypermarket*
2003	1,745,589	896	4,038	43
2004	1,745,589	956	5,604	68
2005	1,787,897	1,141	6,465	83
2006	1,846,752	1,311	7,356	105
Total	7,125,827	4,304	23,463	299

Source: Nielsen (2005,2007)

A mini-market is a small outlet located in a residential area and selling convenience goods (except fresh goods such as meats, fruits, and vegetables) in both big and small cities. Usually people go to mini-markets for fill-in trips, not for regular shopping purposes. Hypermarkets, which have a bigger scale offer one-stop-shopping concept, provide a high variety of products. Due to the government regulation, a hypermarket is allowed to open its outlets only in the capital city of each province, thus hypermarkets are concentrated only in big cities. For instance, 58% of the hypermarkets are located

in the Jakarta area known as Jabotabek (Jakarta, Bogor, Tangerang, and Bekasi), followed by East Java (14%) and West Java and Sumatera (10% each) (Figure 4.1).

Figure 4.1 | Hypermarket and Its Store Location, 2004



Source: Natawidjaja (2005)

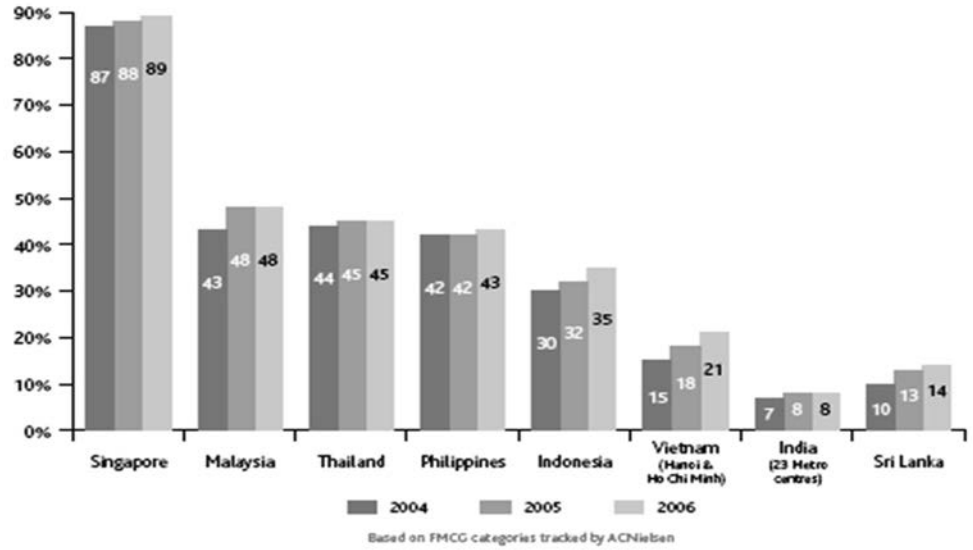
Even though the government has issued regulation to control the expansion of modern retailers, the growth of modern food retailers has negatively influenced the market share of traditional markets. Traditional markets have been decreasing in market shares because of the aggressive development of modern food retailers since 2000.

4.2 Modern Food Retail Development in Indonesia

Indonesia, with a huge population, is full of market potential for retail business, particularly food retail. The presence of modern food retail in Indonesia started with the emergence of supermarkets in 1970. Until 1983, supermarkets formed a small sector, located mainly in the Jakarta area and serving a niche of market-expatriates and upper-class Indonesians. Since 2000, two types of modern food retail, the hyper- and mini-markets, have shown remarkable market penetration measured by the growth of their shops number. Modern food retail provides more choices for consumers as to where they can do their shopping. Modern food retailers hope, of course, that consumers will develop a preference for buying groceries in their stores, for the cleanliness and convenience they provide. However, some studies found that traditional markets still are the most favourite place for shopping fresh goods and that modern food retail entry did not significantly influence the business performance of traditional markets (Goldman et al. 1999; Suryadarma et al. 2007).

Nielsen (2007) showed that compared to other Asian countries, Indonesia continues to have a very strong growth of modern food retailing, driven by the growth of hyper- and mini-markets (Figure 4.2).

Figure 4.2 | Share of Trade for Modern Services Outlets



Source: Nielsen (2007)

The entry of the first hypermarket in Indonesia was pioneered in 1998 by the biggest hypermarket in Europe; Carrefour. Within ten years, this hypermarket had opened 61 stores in 17 cities, the majority of which are located in Jakarta and its surrounding areas. Compared to other Asian countries, Indonesia reached the highest total sales growth in 2008 (12.5% at constant exchange rates), while sales in Asia grew by 6.9%.

Carrefour introduced a new way of shopping to Indonesians through its one-stop-shopping concept, which offers consumers convenience and an efficient way to do their shopping (Sunanto and Tuninga 2009). Consumers are provided with services such as free parking, credit and delivery options, in addition to a wide range of products and assortments such as: fresh goods (fruits and vegetables, meat, fish), beverages and snacks, toiletries, electronics, furniture, fashion goods, and sporting goods. Some Carrefour stores are located in the shopping centre (anchor store), while others have their own building complete with an ATM, a food court, a drug store, a small boutique, and an airline counter, for example.

The following section presents the profiles of major modern food retailers in Indonesia in order of store type:

- Hypermarket and Supermarket

1) Carrefour

As the second largest retailer in the world, Carrefour opened its first store in Cempaka Putih, Jakarta in October 1998. At the same time, another French hypermarket, Continent, also opened its first

store in Pasar Festival, Jakarta. At the end of 1999, Carrefour did a merger with Promodes, the head company of Continent, and since then all of Continent's stores have changed to Carrefour.
Carrefour has achieved tremendous growth in Asia for the last decade particularly in two countries, China and Indonesia. In early 2008, there were 41 stores located in 10 major cities in Indonesia, and in the mid of 2011, Carrefour run more than 60 stores in Indonesia with more than 11,000 employees who are ready to serve customers. With its philosophy (competitive price, a complete merchandise assortment, and excellent services) Carrefour achieved its success through applying the concept of one-stop-shopping, extremely low prices, a full range of assortment choices, self-service, and free parking.

To widen its market, Carrefour has finished the acquisition process of PT. Alfa Retailindo, Tbk and has changed the name of Alfa Gudang Rabat into Carrefour Express (www.carrefour.co.id). However, the acquisition has created a monopoly according to the Committee for Supervisory of Business Competition (KPPU). The monopoly was indicated by the increase of cost that had to be paid by suppliers to Carrefour at 120%, while the market share of Carrefour after the acquisition increased 30% and its dominant position in the market made Carrefour forced the suppliers to accept its trading terms. In March 2011, the KPPU decided that Carrefour had been proven in violating the regulation of monopoly, therefore Carrefour had to pay a fine of approximately $3,000,000 and had to give 75% of its shares in Alfa Retailindo to parties that do not have any affiliations with Carrefour for at least one year after the verdict had been taken in March, 2011. Carrefour refused the allegation and proclaimed that Carrefour had followed the right procedure of the acquisition.

Another big issue faced by Carrefour is the objections from merchants in traditional markets regarding some Carrefour stores which are located near the traditional markets. There were some protests in 2010 in some cities that insisted Carrefour to close some of its stores due to their negative effects on traditional markets.

In April 2010, 40% of Carrefour Indonesia's share was acquired by a national Group, Para Group owned by Mr. Chairul Tanjung. After the acquisition, the shareholder composition of Carrefour Indonesia is 40% owned by Trans Ritel (Para Group), 39% owned by Carrefour SA., 9.5% was owned by Carrefour Netherlands BV, and 11.5% owned by Onesia BV. The new shareholder composition shows that a larger part of Carrefour Indonesia's shares is owned by a national company and it is hoped that with the new owner, Carrefour will have more and better relations with small farmers or producers, small and medium local food processors and traditional retailers.

2) Hypermart

The presence of hypermart in Indonesia cannot be separated from the biggest retail group in this country, PT. Matahari Putra Prima, Tbk (Matahari). Matahari is known as the biggest chain retail store with 85 chain stores all over Indonesia dominated by department stores as its core business.

After the entry of Carrefour in Indonesia, Matahari decided to expand its business into the Fast Moving Consumer Goods (FMCG) market, with the hypermarket concept. Hypermart represents the modern, compact style hypermarket business within the fast growing Indonesian Fast Moving Consumer Goods (FMCG) market, with its nationwide operation, its current 47 stores spread over

21 cities and they will continue to expand in major areas in Indonesia (www.matahari.co.id). As one of the greatest growth contributor for the company, Matahari has decided to expand the Hypermart focussing on areas outside Java. To support the expansion, Matahari will build distribution centres to strengthen its logistic system.

Matahari also provides supermarket formats for its customers, namely Foodmart. Foodmart represents the latest interpretation of modern supermarket for lifestyle grocery shopping and convenience (www.matahari.co.id). Foodmart has 32 outlets in a few big cities, which offers convenience more focussed on western assortment products, fresh groceries, ready to eat meals and daily supplies.

3) Giant and Hero

The Hero supermarket was the first supermarket introduced in Indonesia in 1971 by M. Saleh Kurnia. Today, Hero is a retail group which offers four formats – Hero (supermarket), Giant (hypermarket), Guardian (drugstore), Starmart and Mitra (convenience). Introducing the self service shopping concept to Indonesian consumers, Hero supermarkets have succeeded in developing its business all over the country. By the end of 2009, Hero has operated 35 stores of Giant hypermarkets, 50 stores of Hero supermarket, 63 stores of Giant supermarkets, 195 stores of Guardian, and 124 stores of Star Mart. Hero also has penetrated into other countries such as Malaysia, Brunei, and China.

In 2010, a giant Hongkong retail group, Dairy Farm, officially owned 94.3% of Hero's shares through its subsidiary, Mulgrave Corporation BV. The presence of Giant hypermarket in Indonesia is a part of Dairy Farm's strategy as the owner to expand Giant market into the Southeast Asia and the Middle East.

4) Makro and Lotte Mart

Makro is a modern retail using warehouse format that offers food and beverages, and non food products such as electronics, office stationeries, and clothes. A customer who wants to buy goods at Makro has to be registered as a member and has to own a membership card.

Makro ran its first store in Indonesia in 1991 and in the following years, Makro expanded its market by building stores in West Java, Central Java, and East Java. Following the success of its stores in Java, Makro continued to open some new stores outside Java such as in Makassar (2003), Palembang (2004), and Banjarmasin (2005). In September 2008, the Lotte group from Korea acquired Makro Indonesia by buying all its shares from the Netherlands SHV Holding NV. All Makro stores in Indonesia have changed their names into Lotte Mart. The company plans to open 26 stores to compete in the Indonesia retail market.

5) Yogya

Under PT. Akur Pratama, this local retail chain is the leader in supermarket format in West Java which operates 60 stores with 160,000 m^2 total store size and occupies 89,000 m^2 selling areas in 2011. Started as a traditional store selling 'Batik' (an Indonesian traditional cloth), DJOGJA also sold convenience goods. In 1982, under the brand name 'Yogya', the owner opened its first modern store in Bandung

that combined a supermarket and department store in the same building. With its company mission "To be loyal in satisfying consumers needs", Yogya offers high quality products with affordable prices, good services, friendly and convenience shopping experience for customers.

Yogya has been continuously expanding its market coverage in West Java, Jakarta, and some parts of Central Java. As part of the company's expansion strategy, Yogya developed a new brand 'Griya', which serves as a medium to low income population with smaller store size and less assortment than 'Yogya'.

To support the store development, the company built distribution centres in some areas facilitated with sophisticated logistic equipments and reliable transportation facility, and information technology as the backbone of store operation. The distribution centre has main functions as a warehouse and as a distribution centre that organise distribution of goods to each store in a efficient way.

6) Super Indo

Super Indo is part of international retail chain DELHAIZE group in Belgium. This supermarket operates more than 91 stores in major cities in Java and Palembang, Sumatera. Super Indo started to develop in 1997, and provides convenience goods with reliable quality, high variety assortment, cheaper price, and freshness. This chain carries out more fresh goods in the stores compared to other supermarkets. As part of the company's values, Super Indo promotes healthy living by supporting the consumption of healthy foods by Indonesian consumers through a '5 a Day' program. Consumers are asked to consume vegetables and fruits at least five portions per day as the World Health Organisation (WHO) suggests that people should consume vegetables and fruit 400 grams per day.

- Mini-market

1) Alfamart

Alfamart is a national retail company using the mini-market format that offers convenience goods for consumers. It is the biggest in its kind in Indonesia. On average, each Alfamart store has less than 250 m^2 space and is located in the residential area, close by or even in public facilities, and office buildings. Based on demographic segmentation, Alfamart targets its market on housewives, children, and the middle income class.

Alfamart was established on June 27th, 1999, and was owned by PT. Alfa Retailindo, Tbk (51%), and PT. Lancar Distrindo (49%). The first store, "Alfa Minimart" opened in Karawaci, Tangerang, then three years later on August 1st, 2002, PT. HM Sampoerna Tbk took over the Alfamart as the main shareholder (70%), and the rest of Alfamart's share was owned by PT. Sigmantara Alfindo.

In January 2003, Alfa Minimart started to use a new name, 'Alfamart' and now, this mini-market owns around 3000 stores with a dramatic growth using franchise system. The franchise system offers: (1) location survey and store design planning; (2) definite target marketing; (3) high quality product selection based on Alfamart standard; (4) merchandising supplied by Alfamart; (5) employee selection and training by Alfamart; (6) financial and administration system for storing; (7) store promotion and store opening; (8) operational guidance, supervision, and consulting services for

five years; and (9) joined with the chain of Alfamart, the franchisee has to pay royalty fees based on monthly net sales.

2) Indomaret

Indomaret is mini-market chain store organised by PT. Indomarco Prismatama that provides convenience goods with sales area less than 200 m^2. Indomaret owned 4110 stores in March 2010 and 2327 of them are owned by Indomaret, while the rest of them are owned by franchisees spread over cities such as Jakarta, Bogor, Tangerang, Bekasi, West Java, East Java, Yogyakarta, Bali, and Lampung. Indomaret stores can be easily found in the residential area, office buildings, main streets, and public facilities. There are more than 3500 product varieties of foods and non foods with affordable prices. Indomaret has 12 distribution centres supported by modern technology to support stores daily operations, while Indomaret is also strengthened by its subsidiaries.

3) Circle K

Circle K is an international franchise of mini-markets from the United States. Circle K operates its store 24 hours and targets its market to teenagers, hence, Circle K has become the trendsetter.

Circle K opened its first store in Indonesia in 1986 in Jakarta and continued penetrating the market into Bali in 1996, Yogyakarta in 2000, and Bandung in 2001. Recently, Circle K has 23 stores in Jakarta, 7 stores in Bandung, 8 stores in Yogyakarta, and 24 stores in Bali, which employs around 700 employees.

4.3 Modern Food Retail Development in West Java

The province of West Java is the densest area in Indonesia with 43,053,732 inhabitants dispersed across 26 districts. Bandung, as the capital city of this province has the biggest population with 7,083,700 people located in this area, followed by Bogor (5,722,266), and Bekasi (4,965,272) (Sensus Penduduk, Badan Pusat Statistik, 2010).

The development of West Java's geographical economics is referred to by the condition of mega-urbanisation with some cities as strong reactors such as Bandung, Cirebon and Tasikmalaya. Hence, there are some rapid changes in land functions from neighborhood areas to industrial areas or satellite cities to provide services for industrial development and to serve people who commute in and out of the areas.

West Java experiences the highest level of urbanisation in Indonesia, and generally, city developments in West Java have similiar characteristics as some countries in Latin America and Southeast Asia such as Brazil and Thailand. The main problems of those cities are poor urban planning and management, and poor infrastructure. Even though this province has many horticultural production centres, those centres only can serve a few areas in the same province.

Bandung, as the capital city of West Java, is the backbone of this province's economy through the existence of several sectors of high potential i.e. tourism, manufacturing, and large scale retail. One of the fastest growing sectors in this city is modern retail. The first department store was

opened in 1977, followed by the first supermarket in 1979. There was an explosion in the number of supermarkets, starting in 2002; consequently this development has forced traditional markets and other supermarkets to close, mainly local chains except Yogya Group. There were 17 department stores, 5 hypermarkets, 40 supermarkets, and 60 mini-markets in 2007 (Kementerian Perdagangan Republik Indonesia 2010) compared to only 75 of traditional retailers in the same year. To create a healthy business environment, the government has issued a trade regulation in 2009, which consists of some important concepts such as fair trade, zoning regulation, and partnership between modern retailers and local merchants.

4.3.1 Consumption Trends

Food consumption is important in supporting the development of Indonesia's economy. The trend of private consumption as percentage of GDP was up between 1990-2005, at the same time food consumption contributed 26.4% to GDP growth (Nielsen 2009). However, the economy is still able to grow when the food consumption level is high. Along with the country's economic growth, there was an increasing rate of consumers spending on the non-food category between 1999 and 2007, while spending on food tended to be static (Table 4.3).

Table 4.3 | Percentage of Monthly Average per Capita Expenditureon Food and Non-Food in Indonesia, 1999-2009 (%)

Category	*1999*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Food	62.94	58.47	56.89	54.59	51.37	53.01	49.24	50.17	50.62
Non-Food	37.06	41.53	43.11	45.42	48.63	46.99	50.76	49.83	49.38

Source: National Social Economic Census, BPS (1999-2009)

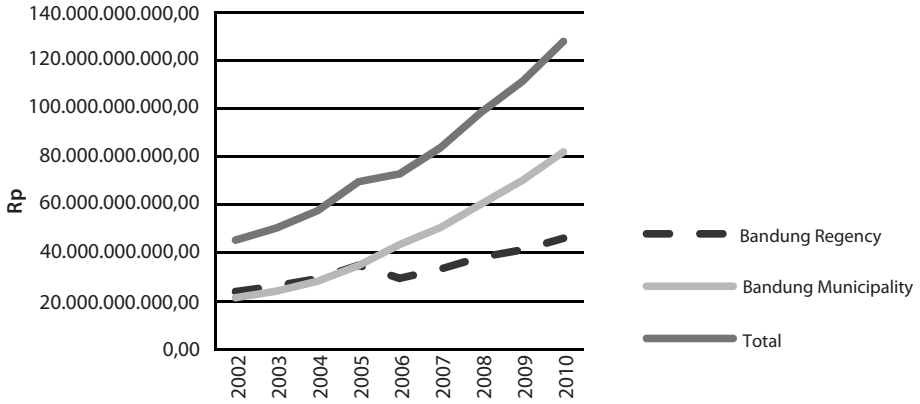
A trend similar to the condition described at the national level was also found in Bandung, West Java, where households spent more money for food than non-food (Table 4.4). If we compare the percentages of national household expenses to the percentages of household expenses in Bandung, we find that in 2002 to 2004, food consumption levels in Bandung were higher than the national consumption level, and started to decline in 2005, and reaching the lowest level in 2009 while non-food consumption level increased since 2005, particularly for education. The increase percentage of non-food consumption was related to the increase of Bandung's gross regional domestic product (Figure 4.3). As people's income increase, they spend more on non-food goods such as fashion, entertainment and education.

Table 4.4 | Percentage of Monthly Household Expenses, Bandung, West Java (%)

Year	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*
Meat	20.88	25.13	26.85	12.41	15.11	13.84	10.74	11.84	11.93
Egg and Milk	11.26	9.37	12.07	6.96	9.07	7.82	5.59	6.72	7.96
Vegetables	9.46	8.47	9.20	4.74	6.60	5.46	4.36	3.15	4.07
Fruits	8.07	7.90	8.18	3.80	5.47	4.32	3.49	3.27	3.52
Food & Beverages	30.46	18.89	27.70	24.03	14.59	16.66	27.97	22.16	25.20
Total Food	80.14	69.76	83.99	51.94	50.83	48.11	52.15	47.14	52.69
Year	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*
Fashion	13.48	20.97	9.61	7.58	6.13	6.45	5.12	5.56	7.15
Durable	6.38	9.26	6.40	9.23	2.68	3.89	10.50	3.01	4.59
Education	N/A	N/A	N/A	14.33	18.95	20.63	15.74	27.67	19.48
Transportation	N/A	N/A	N/A	16.92	21.41	20.93	16.49	16.62	16.10
Total Non-Food	19.86	30.24	16.01	48.06	49.17	51.89	47.85	52.86	47.31

Source: National Social Economic Census, BPS (2002-2010)

Figure 4.3 | Bandung Gross Regional Domestic Product, 2002-2010 (IDR)*



*(IDR = 0.0001USD)
Source: BPS (2002-2010)

4.4 Modern Food Retail and Consumer Shopping Behaviour in West Java

The dramatic growth of modern retail for example through super- and hypermarkets, has drawn a lot of people to these modern stores. Consumers who previously preferred to do shopping in traditional retail stores, now have the choices between different shopping places in modern retail stores.

For most people, visiting a modern shopping centre is now part of their life style. It has become a must. Based on a survey on visiting frequency to shopping centres in Jakarta and Surabaya, it was

found that people visited shopping centre at least once or twice a month (Table 4.5), which means that people love to go to the shopping centre as part of their lives.

Table 4.5 | Visit Frequency to Shopping Centre within the Last Month

Description	*Total (%)*	*Jakarta (%)*	*Surabaya (%)*
Visit	82.3	84.1	80.2
Not Visit	17.8	15.9	19.8
Visit 1-2 times	76.0	74.6	79.4

Source: MARS Indonesia (2008)

Research in eight major cities by MARS Indonesia (2009), revealed that 74.3% of consumers visited shopping centres on holidays, while only 25.7% of them visited shopping centres on working days. A study of consumer shopping behaviour in West Java (Sunanto et al. 2010) found, that most consumers who live in the area near both modern retail and traditional retail prefer to do their groceries (convenience goods) shopping at traditional markets (pasar), kiosks (warung) or convenience stores, and mini-markets at least once a week, while they shop at super- and/or hypermarkets at least once a month (Table 4.6).

Table 4.6 | Shopping Frequency for Convenience Goods

Type of Retail	*Daily*	*≥ Once a week*	*≥ Once a month*	*Rarely*	*Rarely*
1. Traditional market	21	61	6	2	10
2. Kiosk/Convenience Store	2	46	15	18	19
3. Street Hawker	23	24	2	4	47
4. Minimarket	0	33	30	18	18
5. Supermarket	0	16	78	2	4
6. Hypermarket	0	2	40	46	12

Source: Sunanto et al. (2010)

Consumers do their grocery shopping more frequent at traditional markets, kiosks/convenience stores, and mini-markets because of these reasons: (1) Consumers buy fresh goods on daily or weekly basis to keep the freshness of goods, (2) Consumers usually do "fill-in" trips at mini- markets because, usually mini-markets are located in residential area.

A factor that cannot be ignored is the shift of shopping schedule of people who live in big cities. People tend to plan their shopping activities carefully to fulfill their needs by doing weekly or monthly shopping, due to their limited times, as they are busy with their jobs.

The next question is Do people still prefer to go to the traditional retailers, particularly the traditional markets? A survey in Indonesia by Nielsen (2009) found that, after the global financial crisis in 2008, consumers in Indonesia have shifted back their shopping preferences from modern

retailers, i.e. mini-markets, supermarkets, and hypermarkets to traditional retailers. There was an increasing percentage of number of consumers who did their shopping at traditional stores from 13% to 25%, while 60% of consumers preferred to buy fresh goods, i.e. meat and fish, at the traditional market. The increase of food prices due to the crisis had forced consumers to tighten their household spending, therefore they preferred to buy foods at the traditional stores, indicated by the trips or shopping frequency increase, the amount spend each trip, and the average spending of households.

A study in West Java (Sunanto et al. 2010) found that consumers still preferred to buy meat and vegetables at a traditional market after the entry of modern retail, because of the freshness of products. There are some reasons why consumers are still loyal to traditional markets: (1) traditional markets provide more fresh goods, i.e. meats, fish, and vegetables, compared to modern retailers; (2) consumers are allowed to do price bargaining at the traditional markets, which is not possible in a modern retail; (3) traditional markets provide lower quality products, i.e. electronics, textiles, and household goods, that are affordable for lower income consumers who cannot afford to buy those products at modern retailers; (4) some traditional markets provide unique products, i.e. traditional textile called "batik", local foods, and pets, while modern retailers do not sell those products in their stores (Muslimin et al. 2010).

Next, this section presents Sunanto's study (2012) on the modern retail impacts on consumers in West Java. The study focussed on investigating the effects of mini-, super- and hypermarkets on consumers' store preferences and consumers' perceptions on store attributes of those modern retailers. The study revealed which store attributes of modern retailers influenced consumers in West Java to shift their preferences from traditional retailers to modern retailers.

4.4.1 Hypotheses

Literature on retailing shows that there are several reasons for customer switching behaviour: convenient location, changes in pricing, range of assortment, comfort services, quality, store environment, competition, ethical problems, and involuntary switching (Seiders and Tigert 2000; Arnold, Tae and Tigert 1983; Louviere and Garth 1987; Eagle 1984). Switching costs play an important role in a customer's decision to change. A new entrant who has a greater competitive advantage by bringing a noticeable distinction with lower switching costs acquires a bigger portion of the switcher segment (Seiders and Tigert 2000).

A study of consumer perceptions on the hypermarket and traditional stores in Portugal showed that consumers prefer to buy convenience goods or low involvement goods from the hypermarkets, because they offer more benefits regarding prices, promotions, assortment, novelties, and schedules (Farhangmehr et al. 2000). However, for high involvement goods such as household appliances, consumers prefer to buy those goods from traditional retail stores, considering the benefit of saving time spent on shopping. The Farhangmehr et al. study (2000) finds that there is no loyalty to a single retail format, that proves that consumers prefer to buy in hypermarkets; they also buy in several outlets and not exclusively in the hypermarket.

Modern retailer strategies take advantage of consumer ambiguity to shift consumer preferences in its favour. In another words, modern retailers may influence or even change consumer preferences

(Seiders and Tigert 2000). By modeling price and cost structures of grocery retailers, Setala (2000) found that modern large grocery retailers achieved store level economies, where both costs and prices were lower than that of small stores, and consumers enjoyed this benefit. Location, transportation cost, and household size determine the consumer's utility; these large households are the ones that gain the main benefit from modern large retailers. However, the situation may not be the same in other local markets.

As consumers are asked to compare small stores versus big stores, they display interesting perceptions of both types. The Uusitalo study (2001) found that consumers perceive a small store to be attractive, because shopping there is efficient, fast, and simple. Accessibility, familiarity, and intimacy are important factors, which encourage consumers to shop in small stores. Big stores, which are usually located in city centre, are associated with a wide variety of goods, encompassing a lot of walking and searching, and buying more goods at a lower price. Some consumers feel that shopping in big stores is convenient , however they compensate their extra walking in a big store space by its one stop shopping concept. An interesting experience through service and merchandise become a major consideration, that causes consumers to show willingness to accept extra travel efforts to buy grocery and fresh goods (Sinha and Banerjee 2004). However, their research in the Indian retailing sector found that the most important factor in attracting consumer loyalty for grocery stores was proximity, not the store atmosphere.

There are some interesting findings regarding consumer's perceptions of traditional and modern retailers. A study of the traditional market (wet market) versus the supermarket in Hongkong found that consumers perceived wet market and supermarket as complementing one another and both being equally important (Goldman et al. 1999). While wet markets offered more advantages than supermarkets in fresh food, consumers complained about the store/market environment, which did not have adequate convenience to do their shopping comfortably. Even though large modern retailers with mass merchandise sell the same products as traditional grocers, there is no direct substitution relationship between traditional grocery retailers and mass merchandisers (Fox et al. 1994).

A study of consumers preferences on small retailers in Latin America (D'Andrea and Lopez 2006) shows that consumers do not prefer to buy in super- or hypermarkets for a number of reasons. First, they need to spend extra time and money for transportation as they must travel comparatively further to get to those stores. The second reason is that consumers do not like how the staff of large retailers treats them. Finally, consumers perceive small retailers are cheaper than the large ones. However, customer perceptions of indirectly competing stores differ between primary and secondary store loyaly (Mitchell and Kiral 1998).

Recent studies on the impact of modern retailers on store preferences in West Java, Indonesia (Sunanto and Tuninga 2009; Sunanto et al. 2010) found that the opportunity to bargain and indulge in personal relationships between sellers and buyers are the main reasons why people still prefer to buy goods at a traditional market rather than at a modern market (Sunanto and Tuninga 2009). Consumers switched their buying preferences from traditional retailers to modern retailers, particularly supermarkets due to convenience, assortment, and cleanliness. The one stop shopping

concept becomes a competitive advantage offered by modern retailers to attract consumers to switch their buying preferences from traditional retailers to modern retailers (Sunanto et al. 2010).

With regards to previous studies, this study proposes hypotheses which elaborate consumer's store preference for buying goods in grocery category after entry of modern retailers:

H1: Consumers have shifted their store preferences for fresh goods after the entry of modern retailers;

H2: Consumers have shifted their store preferences for staple goods after the entry of modern retailers;

H3: Consumers have shifted their store preferences for foods and beverages after the entry of modern retailers;

H4: Consumers have shifted their store preferences for toiletries and other goods after the entry of modern retailers.

4.4.2 Research Methods

A survey was conducted in three major cities in West Java – Bandung, Bogor and Depok considering that in those cities we can find mini-, super- and hypermarkets that were established in 2003-2007. The respondents of this survey are consumers who have had experiences shopping at mini-, super- and hypermarkets.

Questionnaires (Appendix A.2) were delivered to 550 consumers and they were asked to give information concerning their store preferences before and after the entry of those modern retailers, and their perceptions on store attributes of modern retailers.

A preliminary questionnaire (Appendix A.1) was compiled by focus group discussions, and from three previous studies in Jiménez (2001), Farhangmehr et al. (2000) and Carpenter and Moore (2006), that was tested by 100 respondents. A cluster sampling method was used to select the samples from people who live in the area near both modern markets and traditional markets (0-3 km). A respondent should have experience with grocery shopping both in one of modern and in one of traditional retailers in the last six month. Mc Nemar's test for two related samples from a categorical field was used to analyse whether consumers shift their store preferences from traditional retailers to modern retailers after an entry of modern retailers in their neighborhoods. This test was chosen due to nominal data used in this study.

To test consumers' perceptions on store attributes, they were asked to choose three provided responses, whether modern retailers provided worse, same, or better attributes compared to traditional retailers. The correlation was calculated to test consumers' perceptions on store attributes of modern retailers based on three points scales, which influenced their preferences to shop at modern retailers. The correlation coefficient is able to indicate which store attributes have strong, moderate, or weak influences on consumers preferences on modern retailers. The value of Cronbach's Alpha test is 0.601, which means that all questions asked in the questionnaire are reliable enough to support this study.

4.4.3 Findings and Discussions

There are some anomalies in patterns of consumers shopping frequency (Table 4.7). Consumers usually go to small kiosks near their house to buy goods related to daily needs such as vegetables, seasoning, snacks, and toiletries, while most consumers prefer to do shopping at traditional markets for fresh goods that are purchased on a weekly basis, due the location of traditional markets that are further from their houses. Another option for obtaining fresh goods is the frequent availability of street hawkers that usually offer their merchandises door to door in some neighbourhoods. Consumers found that they spent less time and efforts buying from street hawkers compared to the traditional markets or other retailers.

Shopping at super- and hypermarkets is mostly preferred on a monthly schedule and the majority of goods bought at the modern retailers are foods and beverages, toiletries, and household goods. Contrary to this, consumers also prefer to buy fruit at super- and/or hypermarkets due to the fresh quality and cheaper prices. It is common for consumers go to mini-market for a "fill-in" trip; consequently they do not spend much time or money at the mini-market.

Table 4.7 | Shopping Frequency (%)

	Shopping Frequency					
	Daily	***Weekly***	***Monthly***	***Quarterly***	***Semester***	***Total***
Traditional market	35.6	50.7	12.5	1.2	0	100
Street hawker	34.6	39.3	14.0	12.1	0	100
Kiosk	75.6	17.8	4.0	2.6	0	100
Mini-market	2.0	39.4	39.8	18.9	0	100
Supermarket	0.3	21.1	74.2	2.8	1.5	100
Hypermarket	0	5.2	63.5	30.7	0.5	100

Source: Survey (2009).

There were four product categories analysed in this study to show whether consumers changed their store preferences after the entry of modern retailers. A McNemar's test shows that consumers have changed their store preferences from traditional retailers to modern retailers for all products in the first category, fresh goods especially fruits (Table 4.8). Consumers also preferred to buy staple goods, particularly sugar and salt, eggs, and cooking oil and butter at modern retailers (Table 4.9).

Table 4.8 | McNemar's Test for Fresh Goods

	Meat	*Vegetables*	*Fruits*	*Fish*	*Raw seasoning*
N	520	539	532	530	537
Shift of shopping place (%)	24.2	22.3	49.1	20.4	18.2
Asymp. Sig.	.000	.000	.000	.000	.000

Source: Survey (2009).

Table 4.9 | McNemar's Test for Staple Goods

	Rice	*Sugar and Salt*	*Egg*	*Cooking oil and Butter*
N	535	535	536	538
Shift of shopping place (%)	20.9	46.4	44.0	62.5
Asymp. Sig.	.000	.000	.000	.000

Source: Survey (2009).

Modern retailers provide a high variety of food and beverages, as well as toiletries, which are attractively displayed giving greater choice of comparative brands on the shelves, therefore consumers prefer to buy those goods at modern retailers (Table 4.10 and Table 4.11).

Table 4.10 | McNemar's Test for Foods and Beverages

	Milk, Coffee and Tea	*Soft-drinks*	*Snacks*	*Bread*	*Cake*	*Mineral water*	*Canned foods*	*Confect-ionnaries*	*Instant noodle*
N	538	482	517	524	503	334	367	457	531
Shift of shopping place (%)	67.5	64.9	62.1	49.2	45.9	35	81.7	64.6	65.7
Asymp. Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000

Source: Survey (2009).

Table 4.11 | McNemar's Test for Toiletries and Other Goods

	Toiletries	*Body treatment*	*Detergent*
N	538	514	535
Shift of shopping place (%)	84	86	75.5
Asymp. Sig.	.000	.000	.000

Source: Survey (2009).

All McNemar' test for four product categories have accepted four hypotheses (H1-H4), which means that consumers prefer to buy fresh goods, staple goods, food and beverages, and toiletries and other goods at modern retailers, compare to buy those goods at traditional retailers.

Using Spearman rank's correlation, this study found that consumers have changed their preferences due to the attributes offered by modern retailers (Table 4.12). The most preferred attributes

were product availability, product quality, and product prices. Store location and promotion were not enough to attract consumers to shop at modern retailers (Table 4.13).

Table 4.12 | Correlation of consumers' perceptions on modern retailers' stores attributes and store preferences

			Consumer perception on total attributes	*Consumer store preference*
Spearman's rho	Consumer perception on total attributes	Correlation Coefficient	1.000	.535**
		Sig. (1-tailed)	.	.000
		N	551	551
	Consumer store preferences	Correlation Coefficient	.535**	1.000
		Sig. (1-tailed)	.000	.
		N	551	551

** Correlation is significant at the 0.01 level (1-tailed).
Source: Survey (2009).

Table 4.13 | Spearman rank's correlation of modern retailers' stores attributes

Attributes	*Correlation coefficient*	*Sig. (1-tailed)*
Product availability	.405	.000
Product quality	.375	.000
Product price	.359	.000
Shopping cost	.358	.000
Product assortment	.317	.000
Payment method	.315	.000
Store location	.273	.000
Store area	.247	.000
Promotion	.091	.017

Source: Survey (2009).

4.4.3 Conclusions

This study shows that consumers have shifted their store preferences to modern retailers for all product categories, due to product availability with good quality, prices, and assortment. However, this study has a limitation by using categorical data to investigate the shift of store preferences. Future research will be encouraged to explore the impacts of modern retail development on other important issues, such as the local economy and environment. A comparative study between two countries with different characteristics is also an interesting option to be explored.

In terms of theoretical implications, the results of current study proposes that product availability and product quality are two main reasons why consumers shift their preferences from

traditional retailers to modern retailers, thus, not in line with previous studies, which found that price was the main reason (Farhangmehr et al. 2000; Setala 2000).

The findings of this study might have at least some important business implications. Modern retailers and traditional retailers could understand how to attract consumers by offering more selective store attributes to individualise themselves. Considering the pros and cons of modern retailers, particularly in Indonesia, this study presents findings that could be useful for traditional retailers to identify areas of opportunity in the face of strong competition from modern retailers.

5 Modern Food Retail Development, Agricultural Producers and Local Food Processors[2]

5.1 Introduction

Rice is the main food staple among Indonesian people, therefore the highest percentage of household monthly expenditure is on rice. Table 5.1. shows that based on the percentage of household monthly average expenditure, Indonesian people consume more vegetables than meat due to the higher prices of meat, but their willingness to consume fruit is still low. In 1999, average Indonesian people spent 40 Rupiah (IDR) (IDR = 0.2057 USD) on fresh fruits and vegetables for each 100 rupiah spent on rice, by 2004 that ratio was 74 to 100 on average and for the half of Indonesian population that lives in cities, fresh fruts and vegetables now stands equal to rice in importance in the food economy (Natawidjaja et al. 2007: 1). This fact supports farmers to start horticulture as the main agricultural diversification option.

As it is shown in table 5.1, household expenditure on processed foods are quite high, and continuously increased after 2006 and started to exceed the expenditure for rice.

Table 5.1 | Percentage of Household Monthly Average per Capita Expenditure on Food and Non-Food Category in Indonesia, 2002-2009 (%)

Category	*1999*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Food:									
Rice	16.78	12.47	10.36	9.44	8.54	11.37	10.15	9.57	8.86
Roots	0.78	0.64	0.65	0.76	0.58	0.59	0.56	0.53	0.51
Fish	5.58	5.17	5.37	5.06	4.66	4.72	3.91	3.96	4.29
Meat	2.29	2.86	2.9	2.85	2.44	1.85	1.95	1.84	1.89
Egg and Milk	2.91	3.28	3.04	3.05	3.12	2.96	2.97	3.12	3.27
Vegetables	6.23	4.73	4.8	4.33	4.05	4.42	3.87	4.02	3.91
Beans	2.33	2.02	1.9	1.75	1.7	1.63	1.47	1.55	1.57
Fruits	2.07	2.84	2.97	2.61	2.16	2.1	2.56	2.27	2.05
Oil and Fat	3.04	2.25	2.23	2.31	1.93	1.97	1.69	2.16	1.96
Beverages	3.12	2.71	2.52	2.48	2.23	2.5	2.21	2.13	2.02
Seasoning	1.65	1.55	1.46	1.43	1.33	1.37	1.1	1.12	1.08
Other consumption	1.29	1.37	1.24	1.23	1.34	1.27	1.34	1.39	1.33
Cooked Food	9.48	9.7	9.81	10.28	11,44	10,29	10,48	11,44	12,63
Alcohol	0.05	0.08	0.08	0.08	-	-	-	-	-

[2] Chapter 5 is submitted to the journal, Supply Chain Management: an International Journal, 2013.

Category	*1999*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Tobacco	5.33	6.8	7.56	6.89	6.18	5.97	4.97	5.08	5.26
Total Food	62.94	58.47	56.89	54.59	51.37	53.01	49.24	50.17	50.62
Non-Food:									
Housing and Utilities	15.92	17.8	19.15	20.65	22.53	22.56	20.78	20.21	19.89
Goods and Services	10.74	12.07	12.59	13.48	15.42	14.99	17.01	17.12	17.49
Fashion	5.23	5.18	5.49	5.11	3.82	4.42	3.33	3.37	3.33
Durable Goods	2.87	4.1	3.56	4.15	4.52	2.98	6.47	6.37	5.88
Tax and Insurance	0.85	0.8	0.77	0.83	1.22	0.97	1.27	1.25	1.41
Party Equipments	1.45	1.57	1.55	1.19	1.11	1.06	1.89	1.51	1.36
Total Non-Food	37.06	41.53	43.11	45.42	48.63	46.99	50.76	49.83	49.38

Source: National Social Economic Survey, BPS (2009)

The pattern is similar when we look into the percentage of average monthly expenditure on foods category in Bandung, West Java (Table 5.2). The consumption level of vegetables and fruits in Bandung, West Java was also low compared to other food consumptions, including meat, eggs, milk and processed foods, and has tended to decline since 2006. Although West Java is the centre of horticulture production, it does not push consumers in this province to consume more vegetables and fruits for their daily meals. Almost half of consumers expenditure on food was contributed to the consumption of processed foods and beverages. The development of modern food retail could be one of major factors that influence consumers to consume more processed foods, considering that processed foods and beverages are dominantly sold in super- and hypermarkets.

Table 5.2 | Percentage of Monthly Average per Capita Expenditure on Food Category in Bandung-West Java, 2002-2010 (%)

Food Category	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*
Meat	26.06	36.02	31.97	23.89	29.72	27.75	20.59	25.12	22.65
Egg & Milk	14.05	13.44	14.37	13.41	17.84	14.51	10.72	14.25	15.11
Vegetables	11.80	12.14	10.96	9.13	12.98	9.56	8.36	6.69	7.73
Fruits	10.07	11.33	9.74	7.31	10.76	7.03	6.70	6.93	6.68
(Processed)Food & Beverages	38.01	27.07	32.97	46.26	28.71	41.15	53.63	47.01	47.83
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: National Social Economic Survey, BPS (2002-2010)

The rapid growth of the modern food retail sector – mini-, super- and hypermarkets is an important change in the food economy. Modern food retail business in Indonesia is dominated by mini-markets, (12,599 stores), supermarkets (1149 stores), and hypermarkets (125 stores) (Nielsen, 2009). Modern food retail offers convenience goods categorised into four product categories: Food, Non-Food, General Merchandise, and Fresh (except for mini-markets which do not provide fresh goods). Super- and hypermarkets are dominated by food products (52.1%) followed by the following products

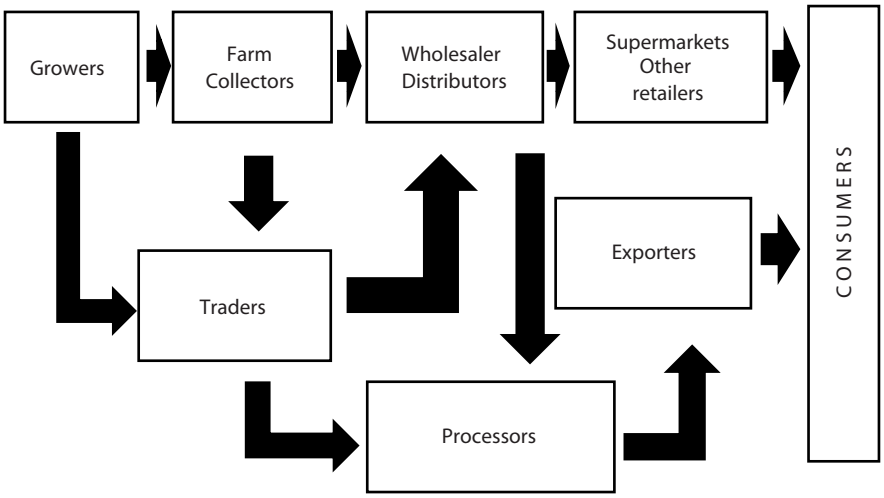
respectively: non-food (24.4%), general merchandise (6.9%), and fresh (16.7%). On average, 85% to 90% of goods sold in modern retail, particularly basic goods (rice, sugar, and snacks) and fresh goods (fruit, vegetables, meat, and poultry) are provided by local producers. There are some imported products including fruit like oranges, melons, apples, grapes, and pears, as well as other products in food and non-food categories including confectionaries, biscuits, chocolates, beverages, dairy products, liquid soap, and shampoo. Price is the main reason why fruits have to be imported, while other products mentioned have to be imported because the local market cannot supply in sufficient quantities.

Local products dominate merchandise sold in the retail environment today in Indonesia. Local producers or suppliers are an important part of the modern retail value chain and local economy and there should be significant benefits from doing businesses with them. However, local producers, particularly small-scale producers do not have strong bargaining powers with big retailers; therefore, they must accept conditions dictated by the retailers rather than losing the transactions. The contribution of modern retail to local producers has been questioned. The objective of this chapter is to answer the question whether development of modern food retail benefit the agricultural producers and local food processors, in particular the rise of super- and hypermarkets and their effect on fruits and vegetables farmers, and dairy and meat processors in Indonesia.

5.2 Value Chain of Fruit, Vegetables, Dairy and Meat in Indonesia

Generally, modern food retailers such as super- and hypermarkets source fruits and vegetables from a mix of (1) farmers directly, (2) specialised or dedicated wholesalers, and (3) the wholesale market (Natawidjaja et al. 2007). Wholesaler distributors collect or buy fruits from farm collectors or traders, while exporters of exotic fruits such as pineapples and mangosteen source these fruits from processors that also source those fruits from traders and wholesaler distributors. Growers only sell or deliver their crops directly to farm collectors and traders (Figure 5.1.). Unfortunately, super- and hypermarkets only source a small number of fruits and vegetables directly from farmers (only 10 to 30% of their total products), and usually super- and hypermarkets prefer to source from medium and large farmers (Natawidjaja et al. 2007).

Figure 5.1 | Fruit Value Chain in Indonesia



Source: Ahmad (2011)

A study on the supply chain of fresh fruits and vegetables (FFV) in Indonesia (Natawidjaja et al. 2007) found that leading retail chains source fruit from large importer or wholesalers and large inter-island traders, but they increasingly source local vegetables from: (1) new generation wholesalers who are specialised, capitalised, and dedicated to modern food industry segments such as super- and hypermarkets, fast food chains, restaurants, and hotels, and (2) growers/packers/shippers for some products using outgrow schemes.

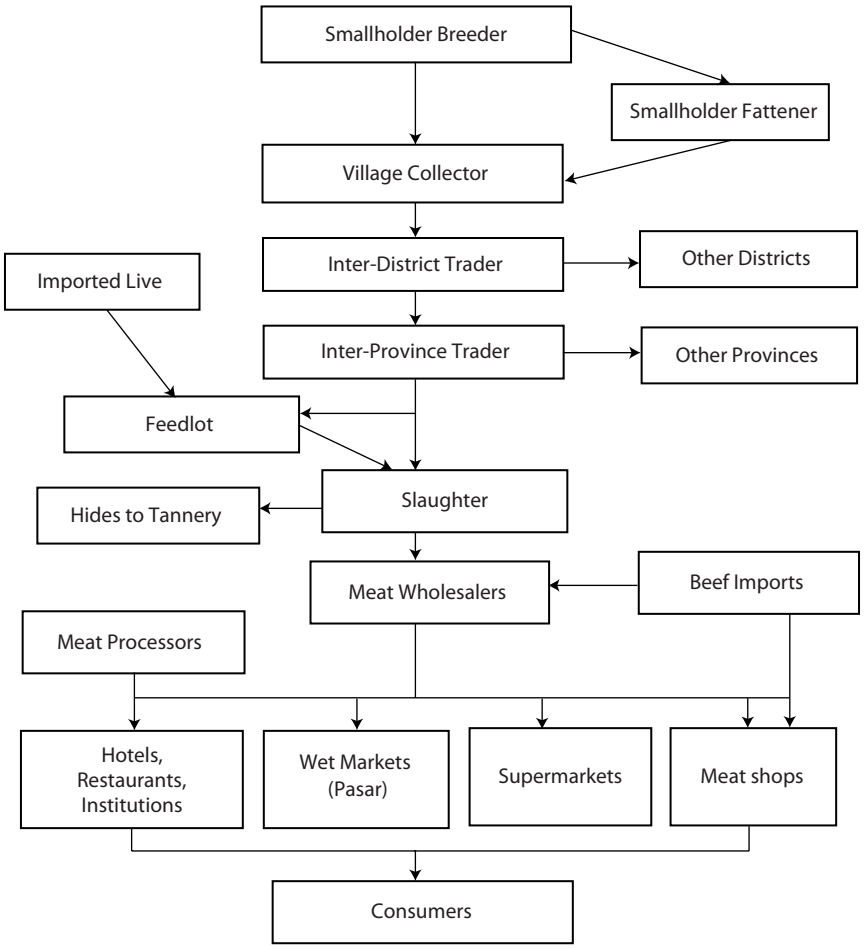
Appendix A.4 shows that traditionally, modern food retailers source vegetables from local collectors, and wholesalers who collect or buy vegetables directly from farmers. Specialised wholesalers have been increasingly used for some purposes i.e. to maintain regular supply and to guarantee the quality of products, while a number of farmers joined into a group called farmers group in order to increase their competitiveness and bargaining power. This study also found that small farmers are starting to participate in the super- and hypermarkets supply chain, mainly through the specialised or dedicated wholesalers but also through some large wholesalers, and a few groups directly.

West Java experienced a horticultural boom faster than other areas, hence many farmers have switched out of rice into fresh fruits and vegetables, adopting, irrigation, cropping multiple seasons, and shifting from low-value commodity vegetables like cabbage to intermediate-value product like tomatoes and potatoes and even into high-value vegetables (Natawidjaja et al. 2007: vii). Studying the tomato value chain in West Java, Natawidjaja et al. (2007) found that the most favourable channel was the organised farmers' channel to supermarkets (farmers' group) which captured 30% of the share of the consumer price, and the least favourable channel was traditional channel.

The beef value chain is illustrated in Figure 5.2 (Sullivan and Diwyanto 2007). It portrays two main flows of cattle in Indonesia: (1) the flow of cattle from smallholders outside Java, and (2) the flow of cattle from Australia and imported beef. There are millions of smallholders of cattle in Indonesia.

Usually, people use cattle as a source of household savings, hence they can be sold for household needs. Sullivan and Diwyanto (2007) described that inter-island transport of livestock is controlled by a few individual companies, and costs are high. Some of livestock traders, such as in Jogjakarta joined in an association in order to have stronger power and infuence to set the prices.

Figure 5.2 | Beef Value Chain in Indonesia



Source: Sullivan and Diwyanto (2007)

There are a number of quarantine stations and feedlots in Java and Sumatera that receive cattles from Australia as well as from other islands before shipping the live animals to destination points. Australian importers have developed a good and efficient system of cattle handling and shipping, therefore the level of stress is kept to minimum and the animals' health is ensured. On the other hand, local inter-island traders face difficulties in handling and shipping live stock. Feedlots sell cattles to the butchers, and the highest sales are in festivals and religious periods. There are public and private slaughter facilities in the same area.

The major meat processing activity is meatball production which requires large amounts of meat, and it is estimated that 60% of beef production goes into meatballs. The remaining products go to retailers and restaurants. In their paper, Sullivan and Diwyanto (2007) explained four segments in the consumer market of beef – wet markets (pasar), supermarkets, meat shops, and the HRI (Hotel, Restaurant, and Institution). The trend of sales to wet markets is declining , around 10-15% per year, while demand from supermarkets is increasing.

5.3 Modern Retail Procurement System

There were interviews conducted during February-March 2012 to the procurement/category managers of major super- and hypermarkets in West Java. These interviews collected information on the procedures and the requirements to get credible and reliable sources for super- and hypermarkets. This section summarizes the information obtained from the interviews.

There are two methods of selecting suppliers performed by modern retailers: passive and active. The passive method means that suppliers actively offer their produces/products to modern retail, while the active method means that modern retailers actively search the qualified suppliers and propose them to become the source for modern retail. There are main reasons why modern retail needs to be active to find a supplier: 1) the supplier has unique products that are not produced by other suppliers; 2) demand for products produced/owned by the supplier are high, but supply of those products is very limited; 3) the supplier does not want to use modern retail as the marketing channel of supplier's products. Generally, the active method needs modern retail to undertake the following actions to acquire reliable sources: 1) learn the market and product trends; 2) check the competitors; 3) find a product specialist; and 4) go to the product exhibition.

There are general requirements categorised into two main factors used by modern retailers to select their suppliers. The first requirement consists of commercial factors, such as reliability, profitability, reasonable/competitive price, production and land capacity, etc. The second requirement consists of financial factors, such as supplier's/company's history, capital strength, suppliers' responsibilities, and whether suppliers have international link or not. To avoid monopoly, each product category should be supplied by at least two suppliers.

- The procedure and criterias of choosing suppliers
  Generally, the first stage performed by modern retailers to choose suppliers as their sources is evaluating potential suppliers based on the three main factors below:

1) Supplier's background

First of all, modern retail will check suppliers' status, whether they are producers/processors or middlemen. Modern retail usually prefers to work with minimum channel in order to reduce the cost. However, sometimes it is difficult to cut middlemen, particularly in Indonesia. The presence of middlemen increases the cost of produces paid by modern retail; consequently consumers pay higher

prices. For instance, the price of local oranges from Medan is higher than imported oranges from China, due to many middlemen involved in the distribution of those local oranges.

2) Supplier's experience

Modern retail will check the experience of potential suppliers based on how long they have been in business and the scale of business they have. In fact, modern retail, mostly big companies only source from suppliers who have enough capital because mostly modern retail have term of payment in average 14 working days. Therefore, suppliers should have adequate capital to run the business.

3) Supplier's reputation

Modern retail, for sure, will not work with a "bad" supplier, hence modern retail will evaluate the reputation of potential suppliers whether they are good or bad, and cooperative or not.

As potential suppliers are identified, modern retail will do the selection based on following criterias listed from the most important to the least one; the supplier:

1) agrees with the trading term offered by modern retail;
2) has product differentiation;
3) guarantees the product quality. For instance, the supplier guarantees the quality of produces received by modern retail stores to be the same quality as during the produces harvesting;
4) guarantees continuous supply;
5) is able to serve modern retail, referring to modern retail operating business, which also means supplier has networks or branches wherever modern retail open the business;
6) supplier and modern retailer are partners, which means they work together to develop the business, grow together, and have same passions.

Selected suppliers have to sign a contract to agree with term of payment, rebate value, and trading terms/sales targets proposed by modern retail. Subsequently, all documents necessary to legalise the cooperation will be prepared, and suppliers will be asked to describe the detail of their products in a form provided by modern retail. Finally, the information will be transferred to the system and generated to the stores.

- Supplier performance evaluations

Generally, modern retail evaluate their suppliers' performances every three months based on following factors:

1) Service level. It is realised that in the fresh category, it is rather difficult to asses service levels of suppliers because modern retailers maintain the ordering as non-scheduled order. Fresh product is not mass product like coca cola, etc., and it fluctuates in terms of supply and price. The price of fresh products fluctuates almost every day;
2) Support for the modern retailers, both in good times or bad times;
3) Cooperation in term of how suppliers cooperate with modern retail to create new product or development;
4) How suppliers adapt to market changes;

5) How suppliers grow, in line with market or do not? If markets grow, they should grow too;
6) Achievement of target sales and margin set by modern retail.

The following sections present findings and discussions of modern retail development on agricultural producers and local food processors.

5.4 The Development of Modern Food Retail and Agricultural Producers Sales

As presented in the chapter 3, this study chooses one local supermarket chain, one national supermarket chain, and one hypermarket as the sample representing the modern retail sector in West Java, and 36 agricultural producers were chosen to represent fruit and vegetables farmers who supply their produces to super- and hypermarkets in West Java. Based on the research question and proposed hypothesis, this section presents and discusses whether modern retail development, in particular the rise of super- and hypermarkets in West Java contributes to the agricultural producers revenue. The development of modern retail is measured by super- and hypermarkets sales of fruit and vegetables, while agricultural producers sales is measured by fruits and vegetables sales to the modern retail.

Box 5.1 | Bogatani Farm, a Local Fruit Producer

Bogatani Farm started in 1985 by J.K. Soetanto. The company motto is "Fruits with Love", Bogatani has a strong commitment to fulfil the demand of high quality fruit products that are grown in Indonesia. J.K. Soetanto started with onion and garlic farming in 1990, then he moved to potato farming while the company still had no brand name. The brand "Boga Tani" was started in 1995 as this company also started to grow melons and watermelons.

The company's commitment to satisfy customers with high quality of fruits supported by a high technology production system, hydroponic (planting without soil, but instead using water media) and organic (planting in soil without using artificial chemicals). In this company, fruits are grown from seeds with love and passion, and it communicates this to consumers through company's logo – a symbol of fruit in the shape of a heart with a leaf growing upwards.

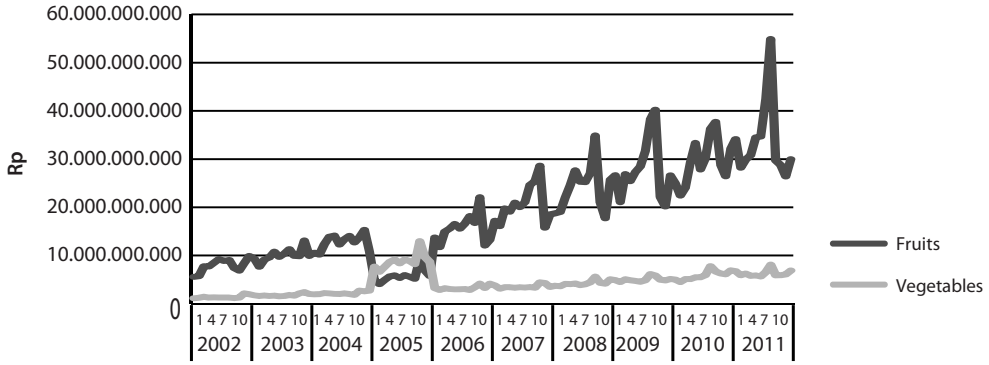
Bogatani Farm offers a range of fresh and nutritious fruits, exotic fruits, such as honey melon, Australian cantaloupe, redsweet watermelon, Californian papaya, sweet rose apple, ball rose apple, red guava, sugar apple, and banana golden. There are four plantation sites in West Java – Subang (60 ha), Cianjur (7 ha), Karawang (6 ha), and Bogor (1 ha).

Bogatani Farm chose to use direct distribution from their farms to several supermarkets and fruit stores in Jakarta and Bandung without intermediaries.

Modern retail sales of fruit and vegetables in West Java did not show a seasonal pattern by 2005, but after 2005, sales of fruits and vegetables were influenced by the season (Figure 5.3). Sales of fruit in super- and hypermarkets was higher than that of vegetables, due to a number of reasons: 1) consumers prefer to buy fruit in super- and hypermarkets because of freshness, high variety of assortment; in particular super- and hypermarkets sell imported fruit that are cheaper than local fruit; 2) consumers prefer to buy vegetables in traditional markets, due to lower prices and freshness compare to super- and hypermarkets. An interesting fact seen in Figure 5.3 is that in 2005 fruit sales in modern retail

dropped to the lowest value, but sales of vegetables in the end of 2005 reached the highest value. Product shortage, due to the harvest failure in 2005, was the main reason why sales of fruits in super- and hypermarkets slightly decreased. After 2005, fruits sales in super- and hypermarkets showed an increasing trend but vegetables sales tended to be at the same level. Consumers still believe that the traditional market is the best place to buy fresh vegetables compared to modern retail.

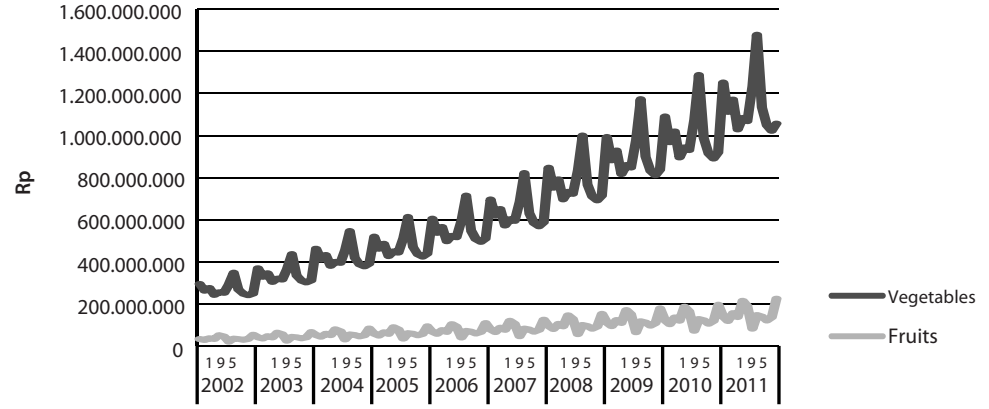
Figure 5.3 | Modern Retail Sales of Fruits and Vegetables in West Java, 2002-2011(IDR)*



*(IDR = 0.0001USD)
Source: Survey (2012)

Sales of local fruit to modern retail is lower than vegetables sales (Figure 5.4), but sales of fruit in modern retail are higher than of vegetables (Figure 5.3). The majority of the fruit sold in super- and hypermarkets is imported, that's why local fruit sales to modern retail is low. Super- and hypermarket orders for local fruits and vegetables to local producers show a seasonal trend, and trends for vegetables tended to increase while trends for local fruits were static (Figure 5.4).

Figure 5.4 | Agricultural Producers Sales of Fruits and Vegetables to Modern Retail in West Java, 2002-2011(IDR)*



*(IDR = 0.0001USD)
Source: Survey (2012).

On average, the share of local fruit in super- and hypermarket in 2002-2011 was only 0.5%, while share of vegetables was 16.8% (Table 5.3). Cheaper price of imported fruit and consumers; preference to buy vegetables at traditional markets are the main reasons why shares of local fruit and vegetables in modern retail are not high. Another reason is the inability of local agricultural producers, particularly small producers to meet the trading terms of modern retail. Do the increasing sales of fruit and vegetables in super- and hypermarkets benefit agricultural producers of fruit and vegetables? The next section will answer this question.

Table 5.3 | Modern Retail Average Sales vs Agricultural Producer Average Sales of Fruit and Vegetables in West Java, 2002-2011 (IDR)*

	Modern Retail Sales		*Agricultural Producer Sales*	
Year	*Fruits*	*Vegetables*	*Fruits*	*Vegetables*
2002	7,925,718,883	1,395,099,154	35,331,865	268,589,898
2003	10,060,004,902	1,793,199,857	44,247,107	336,362,827
2004	12,792,130,419	2,197,481,713	55,408,799	421,213,082
2005	5,780,326,586	8,801,284,256	62,229,952	473,066,914
2006	15,585,476,430	3,268,004,887	72,499,489	551,135,085
2007	20,600,567,157	3,568,146,994	83,406,141	634,046,541
2008	24,073,746,247	4,270,708,868	101,488,129	771,504,311
2009	27,894,402,822	5,031,692,268	119,069,350	905,155,288
2010	29,456,731,057	5,860,008,688	130,692,081	993,510,327
2011	33,702,684,119	6,302,908,127	150,095,527	1,141,013,707

*(IDR = 0.0001USD)
Source: Survey (2012).

5.4.1 Hypothesis Testing on Agricultural Producers

The first hypothesis in this study proposes that development of modern food retail, in particular the rise of super- and hypermarkets in West Java, Indonesia, benefits the agricultural producers. A linear regression is conducted to test the proposed hypothesis, and the output of this test is showed in table 5.4-1 and 5.4-2:

Table 5.4-1 | Regression Output for Agricultural Producers

Model	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Regression	1.096E19	1	1.096E19	781.486	.000[a]
Residual	1.654E18	118	1.402E16		
Total	1.261E19	119			

Table 5.4-2 | Coefficients Dependent Variable Agricultural Producers

Model	*Unstandardized Coefficients*		*Standardised Coefficients*		
	B	*Std. Error*	*Beta*	*t*	*Sig.*
(Constant)	1.071E8	2.493E7		4.299	.000
Modern retail development	.027	.001	.932	27.955	.000

The regression reports that with a significant F statistic, this model is statistically significant. Thus, there is a positive relationship between the two variables, and the first hypothesis is accepted, which means that the development of modern retail benefits the agricultural producers. An adjusted R square 0.868 shows that 86.8% variation in agricultural producers sales is explained by this model. This is a strong relationship between modern retail development and agricultural producers sales.

The next section elaborates findings on small, medium, and large fruit and vegetables producers/ farmers.

5.4.2 Hypothesis Testing on Small, Medium and Large Farmers

To understand better the impacts of super- and hypermarkets development on agricultural producers, this study presents the analysis of the development impacts on small, medium and large farmers.

There are four small fruit farmers and four medium fruit farmers in this study, which are categorised based on average sales values in 2002-2011. Small fruit farmers had average sales values below IDR 5,000,000, and medium fruit farmers had average sales values between IDR 5,000,000 and 50,000,000. There are no large fruit farmers in this study, due to the fact that local fruits only supplied by small and medium farmers.

There are 9 small vegetables farmers (average sales values under IDR 3,000,000), fifteen medium vegetables farmers (average sales values between IDR 3,000,000 and 50,000,000) and four vegetables farmers (average sales values more than IDR 50,000,000). Table 5.5 and 5.6 show shares of local fruit and vegetables sales produced by small, medium and large farmers to super- and hypermarkets in 2002-2011, based on sales data of local fruits sold to super- and hypermarkets and sales data of fruits (local and imported) sold in super- and hypermarkets.

On average, local fruit farmers only have small shares in super- and hypermarkets (less than 1 percent for both small and medium fruit farmers). It may indicate that: (1) imported fruits dominate the modern retail; and (2) wholesalers are the preferred source for both local and imported fruits.

Table 5.5 | Shares of Fruit Farmers Sales to Modern Retail, 2002-2011 (%)

		Share (%)				*Share (%)*	
Year	*Month*	*Small*	*Medium*	*Year*	*Month*	*Small*	*Medium*
2002	1	0.08	0.51	**2005**	1	0.15	1.02
	2	0.08	0.41		2	0.20	1.01
	3	0.05	0.42		3	0.13	1.19
	4	0.07	0.35		4	0.16	0.84
	5	0.03	0.57		5	0.07	1.44
	6	0.06	0.42		6	0.18	1.28
	7	0.05	0.16		7	0.14	0.42
	8	0.08	0.30		8	0.23	0.87
	9	0.08	0.37		9	0.19	0.93
	10	0.04	0.37		10	0.06	0.47
	11	0.03	0.35		11	0.07	0.75
	12	0.06	0.48		12	0.17	1.45
average		*0.06*	*0.39*	*average*		*0.15*	*0.97*
2003	1	0.06	0.38	**2006**	1	0.06	0.43
	2	0.07	0.38		2	0.08	0.40
	3	0.05	0.45		3	0.05	0.45
	4	0.07	0.35		4	0.07	0.36
	5	0.03	0.56		5	0.03	0.60
	6	0.07	0.50		6	0.07	0.51
	7	0.06	0.17		7	0.06	0.18
	8	0.08	0.30		8	0.08	0.31
	9	0.07	0.34		9	0.07	0.33
	10	0.04	0.32		10	0.03	0.23
	11	0.03	0.28		11	0.05	0.50
	12	0.07	0.60		12	0.09	0.73
average		*0.06*	*0.39*	*average*		*0.06*	*0.42*
2004	1	0.06	0.42	**2007**	1	0.06	0.39
	2	0.07	0.36		2	0.07	0.34
	3	0.05	0.42		3	0.04	0.39
	4	0.06	0.31		4	0.06	0.33
	5	0.03	0.53		5	0.03	0.54
	6	0.07	0.50		6	0.07	0.46
	7	0.06	0.17		7	0.05	0.16
	8	0.08	0.31		8	0.07	0.26
	9	0.07	0.34		9	0.05	0.25
	10	0.04	0.29		10	0.03	0.21
	11	0.03	0.30		11	0.04	0.44
	12	0.08	0.68		12	0.07	0.60
average		*0.06*	*0.38*	*average*		*0.05*	*0.37*

		Share (%)				Share (%)	
Year	*Month*	*Small*	*Medium*	*Year*	*Month*	*Small*	*Medium*
2008	1	0.07	0.44	2010	1	0.06	0.42
	2	0.07	0.35		2	0.08	1.53
	3	0.05	0.43		3	0.06	2.19
	4	0.06	0.32		4	0.06	1.79
	5	0.02	0.50		5	0.03	3.19
	6	0.06	0.44		6	0.07	2.58
	7	0.06	0.16		7	0.06	0.95
	8	0.08	0.29		8	0.07	1.82
	9	0.05	0.22		9	0.06	1.80
	10	0.04	0.35		10	0.04	1.67
	11	0.04	0.48		11	0.04	1.95
	12	0.06	0.53		12	0.07	3.13
average		*0.05*	*0.38*	*average*		*0.06*	*1.92*
2009	1	0.05	0.36	**2011**	1	0.05	0.35
	2	0.07	0.37		2	0.07	0.35
	3	0.05	0.41		3	0.05	0.47
	4	0.07	0.36		4	0.07	0.37
	5	0.03	0.60		5	0.03	0.59
	6	0.07	0.46		6	0.07	0.48
	7	0.05	0.15		7	0.05	0.14
	8	0.06	0.24		8	0.06	0.21
	9	0.05	0.23		9	0.08	0.39
	10	0.05	0.38		10	0.05	0.37
	11	0.05	0.49		11	0.04	0.47
	12	0.07	0.60		12	0.08	0.67
average		*0.06*	*0.39*	*average*		*0.06*	*0.41*
				total average		0.07	0.62

Source: Survey (2012).

On average, large vegetables farmers' share in modern retail was only 13.2%, while average shares of medium vegetables did not reach more than 4%. Unfortunately, share of small vegetables farmers was so small (less than 1 percent) and tended to decline.. Small vegetables farmers find it difficult to meet product standards set by modern retailers, and also they could not guarantee the consistency in volume and quality. On average, in 2002-2011, vegetables farmers had only 17.14% of shares in super- and hypermarkets. This indicates that major shares of vegetables sold in super- and hypermakets owned by the wholesalers.

Table 5.6 | Shares of Vegetables Farmers Sales to Modern Retail, 2002-2011 (%)

		Share (%)					*Share (%)*		
Year	*Month*	*Small*	*Medium*	*Large*	*Year*	*Month*	*Small*	*Medium*	*Large*
2002	1	0.37	5.58	20.37	**2005**	1	0.10	1.43	5.24
	2	0.19	4.45	16.30		2	0.06	1.48	5.43
	3	0.06	4.24	14.99		3	0.02	1.40	4.94
	4	0.04	4.55	14.33		4	0.01	1.19	3.75
	5	0.09	4.69	14.84		5	0.02	1.17	3.70
	6	0.05	4.77	15.05		6	0.01	1.27	4.02
	7	0.06	5.16	17.68		7	0.01	1.26	4.31
	8	0.05	5.66	21.70		8	0.01	1.43	5.49
	9	0.04	5.34	17.78		9	0.01	1.32	4.40
	10	0.05	4.52	14.75		10	0.01	0.78	2.56
	11	0.03	2.38	8.74		11	0.01	0.93	3.43
	12	0.06	2.83	9.76		12	0.02	1.13	3.90
average		*0.09*	*4.51*	*15.52*	*average*		*0.03*	*1.23*	*4.26*
2003	1	0.30	4.48	16.35	**2006**	1	0.26	3.95	14.43
	2	0.19	4.38	16.05		2	0.17	4.00	14.66
	3	0.07	4.49	15.86		3	0.06	3.86	13.65
	4	0.04	4.51	14.20		4	0.03	3.92	12.35
	5	0.09	4.57	14.44		5	0.08	4.19	13.25
	6	0.05	4.91	15.52		6	0.04	4.17	13.17
	7	0.06	5.06	17.34		7	0.05	4.38	15.02
	8	0.05	5.00	19.16		8	0.05	5.21	19.94
	9	0.03	4.64	15.46		9	0.02	3.70	12.30
	10	0.04	3.36	10.96		10	0.03	2.85	9.31
	11	0.04	2.65	9.76		11	0.04	3.22	11.85
	12	0.07	3.48	12.00		12	0.05	2.75	9.48
average		*0.08*	*4.29*	*14.76*	*average*		*0.07*	*3.85*	*13.29*
2004	1	0.33	5.02	18.32	**2007**	1	0.26	3.88	14.17
	2	0.19	4.44	16.27		2	0.18	4.23	15.49
	3	0.06	4.29	15.16		3	0.06	4.19	14.81
	4	0.04	4.24	13.37		4	0.03	4.03	12.69
	5	0.09	4.67	14.76		5	0.08	4.33	13.69
	6	0.05	4.74	14.96		6	0.04	4.17	13.18
	7	0.05	4.77	16.34		7	0.05	4.60	15.77
	8	0.05	5.63	21.56		8	0.04	4.92	18.86
	9	0.03	5.21	17.33		9	0.03	4.39	14.60
	10	0.04	3.32	10.85		10	0.04	3.07	10.03
	11	0.04	3.11	11.45		11	0.04	2.81	10.33
	12	0.06	3.22	11.09		12	0.08	3.78	13.04
average		*0.09*	*4.39*	*15.12*	*average*		*0.08*	*4.03*	*13.89*

		Share (%)		
Year	*Month*	*Small*	*Medium*	*Large*
2008	1	0.32	4.80	17.53
	2	0.19	4.41	16.16
	3	0.06	4.25	15.01
	4	0.03	4.10	12.93
	5	0.08	4.17	13.19
	6	0.04	4.48	14.15
	7	0.05	4.65	15.94
	8	0.04	4.68	17.92
	9	0.02	3.16	10.50
	10	0.04	3.83	12.49
	11	0.05	3.54	13.01
	12	0.06	3.15	10.86
average		*0.08*	*4.10*	*14.14*
2009	1	0.28	4.30	15.70
	2	0.18	4.18	15.32
	3	0.06	4.04	14.27
	4	0.03	4.04	12.73
	5	0.08	4.35	13.76
	6	0.04	4.47	14.11
	7	0.05	4.52	15.48
	8	0.04	3.95	15.13
	9	0.02	3.54	11.79
	10	0.05	3.93	12.82
	11	0.05	3.58	13.14
	12	0.07	3.66	12.60
average		*0.08*	*4.05*	*13.90*

		Share (%)		
Year	*Month*	*Small*	*Medium*	*Large*
2010	1	0.31	4.63	16.93
	2	0.19	4.57	16.76
	3	0.06	4.38	15.48
	4	0.04	4.21	13.28
	5	0.08	4.13	13.06
	6	0.04	4.09	12.91
	7	0.05	4.09	14.03
	8	0.03	3.41	13.08
	9	0.02	3.41	11.36
	10	0.04	3.40	11.11
	11	0.04	3.11	11.44
	12	0.06	2.98	10.26
average		*0.08*	*3.87*	*13.31*
2011	1	0.26	3.92	14.33
	2	0.17	4.00	14.66
	3	0.06	4.11	14.53
	4	0.04	4.28	13.50
	5	0.08	4.40	13.91
	6	0.05	4.55	14.36
	7	0.05	4.24	14.51
	8	0.03	3.77	14.46
	9	0.03	4.46	14.83
	10	0.05	4.15	13.55
	11	0.05	3.58	13.17
	12	0.07	3.44	11.86
average		*0.08*	*4.08*	*13.97*
Total average		0.08	3.84	13.22

Source: Survey (2012).

Using regression analysis, it is found that small and medium fruit farmers enjoy the benefits from super- and hypermarkets development. It is presented in table 5.7-1 and table 5.7-2 that the model is significant and the hypotheses are accepted. Adjusted R squares of 0.642 and 0.468 for small and medium fruit farmers indicate that there is a strong relationships between super- and hypermarket development and small fruit farmers in term of sales, and a modest relationship between medium fruit farmers and the development of super- and hypermarket in West Java.

Table 5.7-1 | Regression Output for Small and Medium Fruit Farmers

		Model	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Small Fruit Farmers	1	Regression	2.732E15	1	2.732E15	213.946	.000[a]
		Residual	1.507E15	118	1.277E13		
		Total	4.239E15	119			
Medium Fruit Farmers	2	Regression	9.216E16	1	9.216E16	105.687	.000[a]
		Residual	1.029E17	118	8.720E14		
		Total	1.951E17	119			

Table 5.7-2 | Coefficients Dependent Variable Small and Medium Fruit Farmers

			Unstandardised Coefficients		*Standardised Coefficients*		
		Model	*B*	*Std. Error*	**Beta**	*t*	*Sig.*
Small Fruit Farmers	1	(Constant)	2139527.985	688112.210		3.109	.002
		Modern retail development	.000	.000	.803	14.627	.000
Medium Fruit Farmers	2	(Constant)	2.297E7	5686298.671		4.040	.000
		Modern retail development	.003	.000	.687	10.280	.000

Based on output of regression analysis to test the hypotheses on small, medium and large vegetables farmers, tables 5.8-1 and 5.8-2 show that significance value of small vegetables farmers (0.081) is higher than α=0.05, which means that the hypothesis is rejected. The development of super- and hypermarkets in West java does not benefit small vegetables farmers, however, medium and large vegetables farmers enjoy benefits from the development of super- and hypermarkets. Adjusted R square values of medium and large vegetables farmers (0.274 and 0.275) indicate weak relationships between super- and hypermarket developments in West Java on medium and large vegetables farmers.

Table 5.8-1 | Regression Output for Small, Medium and Large Vegetables Farmers

		Model	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Small vegetables farmers	1	Regression	2.689E13	1	2.689E13	3.106	.081[a]
		Residual	1.022E15	118	8.658E12		
		Total	1.049E15	119			
Medium vegetables farmers	2	Regression	1.367E17	1	1.367E17	45.861	.000[a]
		Residual	3.518E17	118	2.982E15		
		Total	4.886E17	119			
Large vegetables farmers	3	Regression	1.669E18	1	1.669E18	44.806	.000[a]
		Residual	4.394E18	118	3.724E16		
		Total	6.063E18	119			

Table 5.8-2 | Coefficients Dependent Variable Small, Medium and Large Vegetables Farmers

			Unstandardised Coefficients	*Standardised Coefficients*			
		Model	*B*	*Std. Error*	*Beta*	*t*	*Sig.*
Small vegetables farmers	1	(Constant)	1929862.643	565808.645		3.411	.001
		Modern retail development	.000	.000	.160	1.762	.081
Medium vegetables farmers	2	(Constant)	8.293E7	1.050E7		7.898	.000
		Modern retail development	.015	.002	.529	6.772	.000
Large vegetables farmers	3	(Constant)	2.826E8	3.711E7		7.616	.000
		Modern retail development	.051	.008	.525	6.694	.000

5.5 The Development of Modern Food Retail and Local Food Processors Sales

The food category contributes 50% to super- and hypermarkets assortments, and 80% of the products offered in the food category are processed foods. Super- and hypermarkets categorise dairy products (yoghurt, tofu, traditional soy product named tempe, processed meat (meatball, sausage, and nuggets), biscuits, and cooked foods into the processed food category. This study focusses on local made dairy products like tofu, and tempe and processed meat like meatball, nuggets, and sausages considering that the major meat processing activity is meat ball production which requires large amounts of meat, and it is estimated that 60% of beef production goes into meatball.

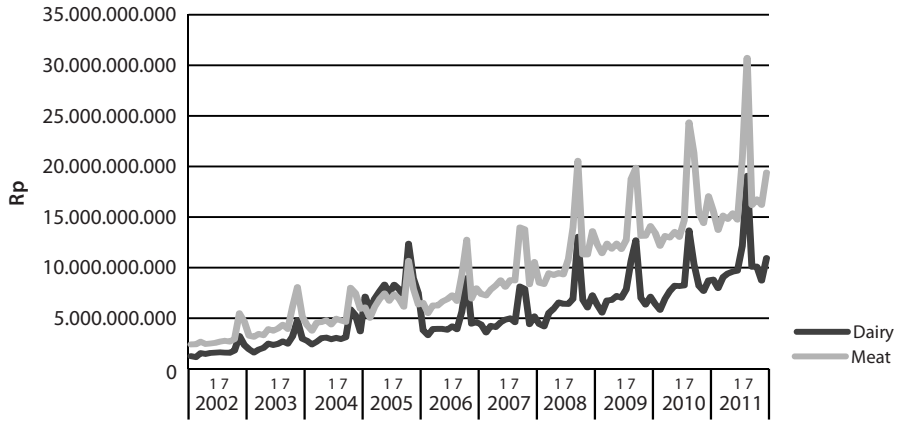
Box 5.2 | A Local Meat Processor

This company is known as the largest local company in meat processing and development. Its mission is to provide nutritious food to Indonesian people, particularly children, with good quality at an affordable price. There are three main brands offered by this company. The first brand represents meatballs made by beef and chicken meat, which is very well known in the Jabodetabek (Jakarta, Bogor, Depok, Tangerang, and Bekasi) market. The second brand carries out sausages, chicken nuggets, and the newest product, meatball in sausage shape. The last brand offers German flavoured premium quality sausages such as Bratwurst, Frankfurter, Bockwurst, etc. This company provides their products to the markets through modern retailers, such as super- and hypermarkets as well as traditional markets.

Meatball is the most favourite product. Indonesian people really like to consume meatball as their daily meal, but not many people like sausages and nuggets. Children are the main consumer of sausages and nuggets. Decreasing rate of sausages orders might be caused by competition, because there is another big meat processing company producing sausages with a more well known brand among consumers. For this company, nuggets are not the main product, but after 2009, the orders of this product were increasing. It is expected that consumers will prefer this company's brand compare to other brands.

Local dairy products like tofu and tempe are the most favourite foods in Indonesia, due to cheap prices compared to meat and also those traditional foods are a healthy food. Therefore, sales value of dairy products in super- and hypermarket are higher than sales value of processed meat (Figure 5.5). Considering that price of processed meat is higher than dairy products, we can draw a conclusion that the quantity of dairy products sold in super- and hypermarkets is quite large compared to quantity of processed meat sold in those modern retail. Dairy products sales are increasing in super- and hypermarket refers to the fact that consumers start to prefer buying local dairy products in super- and hypermarkets. Sales of processed meat like meatballs, sausages, and nuggets also shows an increase, particularly after 2007, but not as high as dairy products. Consumers still prefer to buy processed meat, particularly meatballs in traditional markets or in meat shops due to freshness and low price.

Figure 5.5 | Modern Retail Sales of Dairy and Processed Meat in West Java, 2002-2011(IDR)*

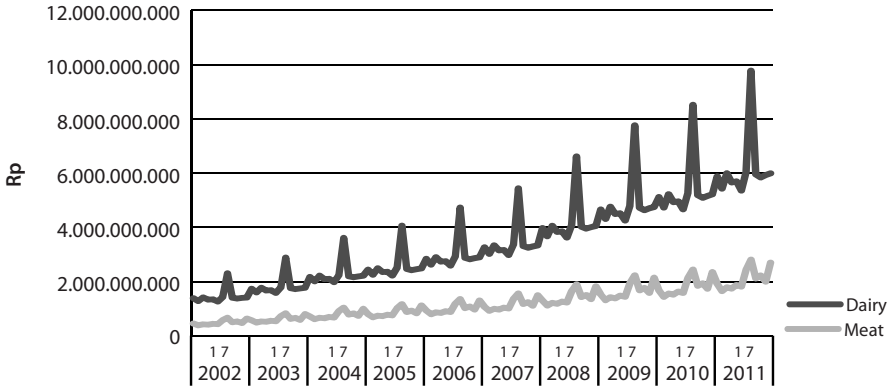


*(IDR = 0.0001USD)
Source: Survey (2012).

An increase in the sales of local dairy products sold to super- and hypermarket in West Java (Figure 5.6) supports the fact that the same condition also happens in modern retail where we find that sales of local dairy products in super- and hypermarkets increase every year. However, sales of processed meat to super- and hypermarkets tend to be static and not as high as sales of local dairy products. Local meat processors are not able to compete with big companies with well-know brands to become the main source of meatballs, sausages, and nuggets for modern retail. Local meat processors prefer to sell their products to the traditional markets or traditional stores, because there are no trading terms and no complicated procedures to sell their products to the traditional retailers.

On average, almost 65% of local dairy products sold in super- and hypermarket in 2002-2011 are sourced from local dairy producers, while the share of local processed meat products in super- and hypermarkets was only 13% (Table 5.9).

Figure 5.6 | Local Processor Sales of Dairy and Processed Meat in West Java, 2002-2011(IDR)*



*(IDR = 0.0001USD)
Source: Survey (2012).

Table 5.9 | Modern Retail Average Sales vs Local Processor Average Sales of Dairy and Processed Meat in West Java, 2002-2011 (IDR)*

	Modern Retail Sales		*Local Food Processors Sales*	
Year	*Dairy*	*Processed Meat*	*Dairy*	*Processed Meat*
2002	1,738,920,275	3,026,378,866	1,442,847,365	491,247,479
2003	2,581,856,975	4,384,238,297	1,806,919,111	615,203,299
2004	3,412,503,998	5,189,506,479	2,262,729,127	770,393,326
2005	7,954,075,465	6,976,032,121	2,541,284,525	865,233,321
2006	4,551,964,096	7,421,046,193	2,960,661,633	1,008,019,005
2007	5,086,284,677	9,316,418,580	3,406,056,552	1,159,662,995
2008	6,635,055,986	11,332,086,909	4,144,470,704	1,411,071,494
2009	7,617,921,880	13,667,222,562	4,862,435,012	1,655,517,418
2010	8,353,102,220	15,463,467,760	5,337,072,500	1,817,117,650
2011	10,473,450,655	17,460,994,837	6,129,451,016	2,086,899,443

*(IDR = 0.0001USD)
Source: Survey (2012).

In summary, shares of local fruits and vegetables sold in super- and hypermarkets are still low (Table 5.10). Fruits sold in super- and hypermarkets are dominated by imported fruits due to lower prices and quality consistency, while local fruits, particularly those that are produced by small farmers can not be sold in super- and hypermarkets, due to their inabilities to guarantee consistent quality of their produces and to meet the trading term of modern retail. Another main reason is the existence of (informal) middlemen in marketing channels of local fruits who create high costs, and in the end make consumers to pay a higher price. Consequently, consumers prefer buying imported fruits to local fruits.

Consumers still prefer to buy vegetables at the traditional markets, due to their perceptions that traditional markets provide freshness and better quality of vegetables. Based on observations in super- and hypermarkets in West Java, consumers usually go to super- and hypermarkets to buy organic or hydroponic vegetables.

Table 5.10 also presents shares of dairy and processed meat produced by local food processors. Local dairy products acquire more than 50% shares of total dairy products sold in super- and hypermarkets, except in 2005. Modern retail sources local dairy products directly from the processors, therefore consumers find that quality and price of local dairy products sold in super- and hypermarkets are the same with or even better from the traditional markets. However, the share of processed meat produced by local processors in modern retail is low and tends to decrease. Consumers prefer to buy meatballs, sausages, and nuggets in the traditional markets and/or meat shops due to freshness and lower prices.

Table 5.10 | Share of Fruits, Vegetables, Dairy, and Processed Meat Produced by Local Producers and Local Processors in Modern Retail, West Java (%)

	Share			
Year	*Fruits*	*Vegetables*	*Dairy*	*Processed Meat*
2002	0.45	19.25	82.97	16.23
2003	0.44	18.76	69.99	14.03
2004	0.43	19.17	66.31	14.85
2005	1.08	5.37	31.95	12.40
2006	0.47	16.86	65.04	13.58
2007	0.40	17.77	66.97	12.45
2008	0.42	18.07	62.46	12.45
2009	0.43	17.99	63.83	12.11
2010	0.44	16.95	63.89	11.75
2011	0.45	18.10	58.52	11.95

Source: Survey (2012).

Do local food processors benefit from the development of super- and hypermarkets? Next section presents the hypothesis testing to answer the question.

5.5.1 Testing the Hypothesis concerning Local Food Processors

The regression shows that the proposed model of modern retail development and local food processors sales is statistically significant with a significance value of F (Table 5.11.-1), which means that sales of local food processors explained by the model is not due to chance.

The regression results show a significance value less than 0.05, which means that the hypothesis is not rejected. Super- and hypermarket developments in West Java benefit the local food processors in this province. With an adjusted R square of 0.795, the development of modern retail has a strong impact on the local food processors sales.

Table 5.11-1 | Regression Output for Local Food Processors

Model	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Regression	4.567E20	1	4.567E20	463.203	.000[a]
Residual	1.164E20	118	9.860E17		
Total	5.731E20	119			

Table 5.11-2 | Coefficients Dependent Variable Local Food Processors

Model	*Unstandardised Coefficients*		*Standardised Coefficients*	*t*	*Sig.*
	B	*Std. Error*	*Beta*		
(Constant)	1.082E9	1.901E8		5.694	.000
Modern retail development	.236	.011	.893	21.522	.000

The next section presents findings on small, medium and large local food processors.

5.5.2 Testing the Hypothesis for Small, Medium and Large Local Food Processors

There are 24 small local dairy processors, 20 medium local dairy processors and 5 large local dairy processors chosen as samples of this study. 66.4% of dairy products sold in super- and hypermarkets are sourced from local food processors and dominated by large companies (Table 5.12).

Table 5.12 | Shares of Local Dairy Products Sales to Modern Retail, 2002-2011 (%)

		Share (%)					*Share (%)*		
Year	*Month*	*Small*	*Medium*	*Large*	*Year*	*Month*	*Small*	*Medium*	*Large*
2002	1	0.64	13.11	96.98		6	0.29	7.98	58.70
	2	0.63	12.72	96.16		7	0.33	9.36	62.57
	3	0.50	10.52	80.11		8	0.48	14.75	91.41
	4	0.50	10.59	79.08		9	0.34	8.97	60.99
	5	0.44	10.33	74.45		10	0.27	7.19	46.45
	6	0.34	9.33	68.64		11	0.17	4.54	31.96
	7	0.39	11.25	75.27		12	0.32	7.60	51.27
	8	0.65	19.96	123.73	*average*		*0.38*	*9.24*	*64.99*
	9	0.42	11.24	76.41	**2004**	1	0.45	9.27	68.54
	10	0.38	10.11	65.33		2	0.47	9.64	72.86
	11	0.20	5.32	37.45		3	0.46	9.52	72.48
	12	0.33	7.68	51.83		4	0.38	8.05	60.14
average		*0.45*	*11.01*	*77.12*		5	0.35	8.25	59.49
2003	1	0.52	10.62	78.55		6	0.29	8.02	58.95
	2	0.57	11.50	86.90		7	0.33	9.48	63.42
	3	0.51	10.75	81.81		8	0.55	16.91	104.81
	4	0.44	9.41	70.24		9	0.34	9.00	61.17
	5	0.35	8.20	59.09		10	0.18	4.90	31.66

		Share (%)					Share (%)		
Year	*Month*	*Small*	*Medium*	*Large*	*Year*	*Month*	*Small*	*Medium*	*Large*
	11	0.19	5.10	35.93		11	0.35	9.23	65.05
	12	0.33	7.65	51.63		12	0.35	8.26	55.72
average		*0.36*	*8.82*	*61.76*	*average*		*0.36*	*8.78*	*61.61*
2005	1	0.20	4.04	29.90	**2008**	1	0.52	10.60	78.42
	2	0.22	4.50	34.00		2	0.50	10.15	76.73
	3	0.20	4.13	31.46		3	0.41	8.50	64.74
	4	0.17	3.58	26.77		4	0.35	7.54	56.29
	5	0.15	3.44	24.78		5	0.30	7.11	51.27
	6	0.13	3.54	26.03		6	0.25	6.71	49.32
	7	0.14	3.91	26.17		7	0.29	8.27	55.32
	8	0.23	7.12	44.12		8	0.43	13.21	81.92
	9	0.16	4.38	29.81		9	0.15	3.94	26.77
	10	0.10	2.61	16.88		10	0.29	7.71	49.85
	11	0.13	3.41	24.03		11	0.31	8.18	57.64
	12	0.18	4.29	28.94		12	0.31	7.16	48.31
average		*0.17*	*4.08*	*28.58*	*average*		*0.34*	*8.26*	*58.05*
2006	1	0.43	8.81	65.12	**2009**	1	0.43	8.71	64.42
	2	0.45	9.13	69.04		2	0.44	8.99	67.94
	3	0.41	8.51	64.77		3	0.39	8.12	61.83
	4	0.38	8.14	60.80		4	0.36	7.73	57.76
	5	0.36	8.47	61.04		5	0.32	7.61	54.84
	6	0.29	7.98	58.66		6	0.26	7.20	52.92
	7	0.31	9.03	60.39		7	0.28	7.91	52.94
	8	0.54	16.72	103.66		8	0.33	10.07	62.45
	9	0.24	6.50	44.17		9	0.18	4.74	32.23
	10	0.16	4.20	27.13		10	0.33	8.81	56.94
	11	0.30	7.92	55.83		11	0.35	9.15	64.48
	12	0.34	8.04	54.26		12	0.36	8.57	57.80
average		*0.35*	*8.62*	*60.41*	*average*		*0.34*	*8.13*	*57.21*
2007	1	0.43	8.81	65.18	**2010**	1	0.46	9.45	69.92
	2	0.48	9.72	73.49		2	0.46	9.43	71.26
	3	0.43	9.07	69.03		3	0.42	8.69	66.17
	4	0.42	8.94	66.75		4	0.35	7.53	56.22
	5	0.36	8.36	60.29		5	0.31	7.32	52.74
	6	0.27	7.29	53.59		6	0.25	6.78	49.87
	7	0.30	8.73	58.41		7	0.29	8.27	55.33
	8	0.53	16.31	101.08		8	0.28	8.61	53.38
	9	0.19	5.19	35.29		9	0.24	6.37	43.28
	10	0.21	5.48	35.40		10	0.31	8.25	53.31

		Share (%)					Share (%)		
Year	*Month*	*Small*	*Medium*	*Large*	*Year*	*Month*	*Small*	*Medium*	*Large*
	11	0.31	8.29	58.44		7	0.22	6.45	43.14
	12	0.33	7.66	51.67		8	0.23	7.09	43.98
average		*0.33*	*8.05*	*56.80*		9	0.28	7.53	51.21
2011	1	0.39	7.89	58.39		10	0.29	7.71	49.83
	2	0.39	7.90	59.68		11	0.32	8.40	59.21
	3	0.37	7.65	58.23		12	0.30	7.02	47.36
	4	0.33	7.05	52.66	*average*		*0.31*	*7.37*	*51.98*
	5	0.31	7.18	51.74	total average		0.34	8.24	57.85
	6	0.24	6.58	48.35					

Source: Survey (2012).

However, different conditions are found in the local meat products sector. Analysing the shares of local meat products sales in modern retail from 3 small meat processors, 3 medium meat processors and 5 large meat processors, we found that only 14% of meat products sold in super- and hypermarkets sourced from local meat processors (Table 5.13). Do all local dairy processors and meat processors benefit from the development of super- and hypermarkets in West Java? The following section will answer the question.

Table 5.13 | Shares of Meat Products Sales to Modern Retail, 2002-2011 (%)

		Share (%)					Share (%)		
Year	*Month*	*Small*	*Medium*	*Large*	*Year*	*Month*	*Small*	*Medium*	*Large*
2002	1	0.07	0.67	17.98		6	0.02	0.80	13.31
	2	0.05	0.84	15.03		7	0.05	1.07	16.91
	3	0.03	0.78	14.93		8	0.06	1.54	17.41
	4	0.02	0.84	15.74		9	0.04	0.94	14.76
	5	0.03	0.82	16.71		10	0.03	0.55	10.11
	6	0.02	0.95	15.66		11	0.02	0.39	6.86
	7	0.06	1.27	20.07		12	0.03	0.87	14.50
	8	0.07	1.93	21.81	*average*		*0.04*	*0.82*	*13.94*
	9	0.05	1.10	17.33	**2004**	1	0.06	0.59	15.69
	10	0.06	0.92	16.84		2	0.05	0.85	15.23
	11	0.02	0.46	8.05		3	0.03	0.72	13.74
	12	0.03	0.77	12.76		4	0.02	0.70	13.16
average		*0.04*	*0.95*	*16.08*		5	0.02	0.67	13.69
2003	1	0.06	0.62	16.54		6	0.02	0.87	14.36
	2	0.05	0.80	14.44		7	0.05	1.08	17.04
	3	0.03	0.76	14.48		8	0.06	1.76	19.83
	4	0.02	0.78	14.58		9	0.05	1.00	15.74
	5	0.02	0.65	13.33		10	0.03	0.53	9.70

		Share (%)					Share (%)		
Year	Month	Small	Medium	Large	Year	Month	Small	Medium	Large
	11	0.03	0.53	9.27		11	0.04	0.72	12.49
	12	0.04	0.95	15.77		12	0.03	0.80	13.36
average		*0.04*	*0.85*	*14.43*	*average*		*0.03*	*0.71*	*12.07*
2005	1	0.05	0.47	12.58	**2008**	1	0.06	0.55	14.61
	2	0.04	0.71	12.78		2	0.04	0.70	12.51
	3	0.02	0.60	11.47		3	0.02	0.64	12.14
	4	0.01	0.53	9.89		4	0.02	0.64	12.00
	5	0.02	0.48	9.87		5	0.02	0.62	12.69
	6	0.01	0.64	10.52		6	0.02	0.75	12.35
	7	0.04	0.82	12.91		7	0.04	0.91	14.33
	8	0.05	1.36	15.35		8	0.04	1.10	12.45
	9	0.04	0.85	13.35		9	0.02	0.41	6.51
	10	0.03	0.44	8.17		10	0.04	0.68	12.58
	11	0.03	0.57	9.87		11	0.03	0.65	11.25
	12	0.04	0.99	16.54		12	0.03	0.76	12.62
average		*0.03*	*0.71*	*11.94*	*average*		*0.03*	*0.70*	*12.17*
2006	1	0.05	0.51	13.64	**2009**	1	0.05	0.44	11.85
	2	0.05	0.76	13.61		2	0.04	0.60	10.79
	3	0.03	0.69	13.11		3	0.02	0.57	10.88
	4	0.02	0.68	12.72		4	0.02	0.59	11.01
	5	0.02	0.63	12.86		5	0.02	0.56	11.39
	6	0.02	0.72	11.95		6	0.01	0.69	11.43
	7	0.04	0.97	15.23		7	0.04	0.90	14.24
	8	0.06	1.64	18.49		8	0.03	0.96	10.87
	9	0.03	0.66	10.29		9	0.02	0.50	7.89
	10	0.03	0.43	7.96		10	0.04	0.69	12.70
	11	0.04	0.75	13.07		11	0.03	0.65	11.34
	12	0.03	0.92	15.40		12	0.03	0.86	14.28
average		*0.03*	*0.78*	*13.19*	*average*		*0.03*	*0.67*	*11.56*
2007	1	0.05	0.52	13.84	**2010**	1	0.05	0.45	11.93
	2	0.04	0.66	11.90		2	0.04	0.62	11.13
	3	0.02	0.63	12.02		3	0.02	0.59	11.25
	4	0.02	0.60	11.12		4	0.02	0.59	11.05
	5	0.02	0.55	11.28		5	0.02	0.56	11.42
	6	0.01	0.71	11.68		6	0.01	0.69	11.38
	7	0.04	0.92	14.52		7	0.04	0.86	13.56
	8	0.05	1.45	16.34		8	0.03	0.82	9.20
	9	0.02	0.50	7.86		9	0.02	0.51	8.07
	10	0.03	0.46	8.47		10	0.04	0.65	11.87

		Share (%)		
Year	*Month*	*Small*	*Medium*	*Large*
	11	0.03	0.65	11.37
	12	0.03	0.78	12.96
average		*0.03*	*0.65*	*11.27*
2011	1	0.05	0.44	11.78
	2	0.04	0.63	11.31
	3	0.02	0.59	11.20
	4	0.02	0.60	11.11
	5	0.02	0.57	11.56
	6	0.01	0.70	11.56
	7	0.03	0.70	11.01
	8	0.03	0.74	8.37
	9	0.04	0.78	12.22
	10	0.04	0.68	12.56
	11	0.04	0.67	11.59
	12	0.03	0.79	13.09
average		*0.03*	*0.66*	*11.45*
total average		0.03	0.75	12.81

Source: Survey (2012).

Table 5.14-1 and 5.14-2 presents the output of regression for small, medium and large local dairy processors. With an adjusted R square of 0.548, 0.612 and 0.613 and significance value less than 0.05, all local dairy proceessors benefit from the development of super- and hypermarkets in West Java.

Table 5.14-1 | Regression Output for Small, Medium and Large Local Dairy Processors

		Model	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Small dairy processors	1	Regression	4.388E15	1	4.388E15	145.410	.000[a]
		Residual	3.561E15	118	3.018E13		
		Total	7.949E15	119			
Medium dairy processors	2	Regression	3.567E18	1	3.567E18	192.262	.000[a]
		Residual	2.189E18	118	1.855E16		
		Total	5.756E18	119			
Large dairy processors	3	Regression	1.502E20	1	1.502E20	189.021	.000[a]
		Residual	9.374E19	118	7.944E17		
		Total	2.439E20	119			

Table 5.14-2 | Coefficients Dependent Variable Small, Medium and Large Dairy Processors

			Unstandardised Coefficients		*Standardised Coefficients*		
		Model	*B*	*Std. Error*	*Beta*	*t*	*Sig.*
Small dairy processors	1	(Constant)	6443038.366	1054324.840		6.111	.000
		Modern retail development	.002	.000	.743	12.059	.000
Medium dairy processors	2	(Constant)	1.171E8	2.614E7		4.478	.000
		Modern retail development	.055	.004	.787	13.866	.000
Large dairy processors	3	(Constant)	9.672E8	1.711E8		5.654	.000
		Modern retail development	.354	.026	.785	13.748	.000

Although shares of local meat products in super- and hypermarkets are really small, all processors benefit from the development of super- and hypermarkets. Tables 5.15-1 and 5.15-2 show that all types of meat processors have significance value less than 0.05, which means that proposed hypotheses are accepted. It may indicate that local meat processors still have opportunities to serve modern retailers, and to increase their shares in modern retailers.

Table 5.15-1 | Regression Output for Small, Medium and Large Meat Processors

		Model	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Small meat processors	1	Regression	2.346E14	1	2.346E14	206.652	.000[a]
		Residual	1.339E14	118	1.135E12		
		Total	3.685E14	119			
Medium meat processors	2	Regression	1.293E17	1	1.293E17	330.063	.000[a]
		Residual	4.622E16	118	3.917E14		
		Total	1.755E17	119			
Large meat processors	3	Regression	2.758E19	1	2.758E19	647.547	.000[a]
		Residual	5.026E18	118	4.259E16		
		Total	3.260E19	119			

Table 5.15-2 | Coefficients Dependent Variable Small, Medium and Large Meat Processors

			Unstandardised Coefficients		*Standardised Coefficients*		
		Model	*B*	*Std. Error*	*Beta*	*t*	*Sig.*
Small meat processors	1	(Constant)	482564.073	198227.869		2.434	.016
		Modern retail development	.000	.000	.798	14.375	.000
Medium meat processors	2	(Constant)	7972905.926	3682203.660		2.165	.032
		MR Sales of Meat	.006	.000	.858	18.168	.000
Large meat processors	3	(Constant)	2.674E8	3.840E7		6.965	.000
		Modern retail development	.090	.004	.920	25.447	.000

5.5 Conclusions

The development of super- and hypermarkets in West Java brings significant benefits to both agricultural producers and local food processors. Agricultural producers and local food processors experienced an increase of their products sold to super- and hypermarkets during 2002-2011, particularly vegetables and local dairy products.

An interesting fact found in this study is that fruit sales in super- and hypermarkets was higher than vegetables sales, but they were dominated by import fruit, not local fruit therefore sales of local fruit to super- and hypermarkets were low and the growth tended to be static compared to vegetables

sales. Ineffeciency in marketing channels of local fruit make local fruit more expensive than import fruit.

Small vegetable producers in this study do not benefit from the development of super- and hypermarkets. Generally, small producers and processors find it difficult to meet the trading term set by the modern retail, therefore they usually sell their produces to middlemen or wholesalers and middlemen/wholesalers become the sources for modern retail.

The next chapter presents the role of wholesalers in modern retail supply chain for fruit and vegetables, and whether the development of super- and hypermarkets in West Java benefits wholesalers of fruit and vegetables.

6 Food Retail Development and Wholesalers

6.1 Introduction

It is rarely found in developing countries that agricultural producers, particularly small farmers directly sell their fruits and vegetables to super- and hypermarkets without intermediaries such as traders and wholesalers due to their inabilities to guarantee in production capacity and quality consistency. During the 1990s and before, supermarkets in developing countries preferred to use traditional wholesalers as a source, rather than on contracts directly with producers/suppliers. However, supermarkets found that the traditional wholesale system has some disadvantages:
(1) low or no standard for quality and/or safety; (2) inconsistent volumes and quality; and (3) high transaction costs due to use of many small brokers (Reardon and Berdequé 2006: 14).

As supermarkets modernise their procurement systems, there is increasing use of specialised and dedicated wholesalers (specialised in product lines and dedicated to modern retail) that can be outside the supermarket chain or can be 'in-house' in the chain (Reardon et al. 2010: 1; Reardon 2005: 13; Reardon and Gulati 2008: 2). Specialised and dedicated wholesalers benefit modern retail as agents of selection among farmers in order to maximize quality and minimize the costs of product sorting as well as the loss associated with damage of low quality produce and transaction costs incurred from dealing with inconsistent quality and volumes (Natawidjaja et al. 2007: 7). The study of Natawidjaja et al. (2007: vii) in Indonesia found that leading super- and hypermarket chains still source fruits from large importer wholesalers, but the chains increasingly source vegetables from specialised, capitalized, and dedicated wholesalers, while for some products they use outgrower schemes via growers/packers/shippers.

Box 6.1 | Bimandiri, a Specialised Dedicated Wholesaler

This company was created in 1992 by Achmad Rivani and was a traditional wholesaler to restaurants and hotels in Bandung. In 1995, Bimandiri started to supply vegetables to local supermarkets, Matahari and restaurants, and in 1996 they started to suppy to a foreign large format retailer, Wal-Mart. During this period they bought from other wholesalers and from lead-farmers (larger small farmers or medium farmers that own-produce as well as collect from 3-10 smaller farmers in the farmers group) who delivered to their small warehouse.

From 1998, as the financial crisis took shape, they supplied Carrefour, Continent, and Matahari supermarkets, and in 2000 they became solely dedicated to Carrefour, and up to today mainly supply Carrefour. In 2006, Bimandiri was awarded "The Best Promising Supplier Carrefour Award", and in 2007, they supplied to more than 30 Carrefour's stores in Indonesia.

Natawidjaja et al. (2007) found that from 1998-2004, Bimandiri used the approach of working closely with farmers groups, such as Aspirasi and Mekar Buah as well as with a mango farmers group in Pelamang and a variety of other groups in order to assure quality and consistent volumes for their client. This approach meant more cost than benefit. Since 2002/3 they have maintained preferred-suppliers lists but moved away from close technical assistance and credit, and also sourced some from local large wholesalers.

As a dedicated wholesaler to Carrefour, Bimandiri is an important part of the supply chain for vegetables, which consists of 260 small medium farmers that supply their vegetables to 12 large farmers, 12 farmers groups, 30 suppliers, 25 suppliers and farmers, and 2 wholesale markets. This company collects or buys vegetables from these groups and delivers the vegetables to Carrefour.

On average, Bimandiri ordered and received 7,913 kg of vegetables per day from Carrefour as the company's main customer and also from small customers. The golden age of hypermarket format, particularly Carrefour was between 2006-2009, and it started decreasing after 2009 was the mini-market format started aggresively increasing its market penetration.

There are 65 vegetables wholesalers and 40 fruits wholesalers selected in this study to investigate whether the development of super- and hypermarkets in West Java benefits both wholesalers.

6.2 The Role of Wholesalers in Supply Chain of Fruit and Vegetables

As noted in Natawidjaja et al. (2007: 20), 15%-20% of the fresh fruit and vegetables market is dominated by supermarkets, but the wholesale market is obviously still by far the most important market in fresh fruit and vegetables. Generally, the wholesale sector in Indonesia is characterised as the network of small traders and medium or large wholesalers operating in the field and buying directly from farmers, then passing the product to several parties including wholesale markets until it reaches the retailer who might be a supermarket or a hypermarket, a small shop, a street vendor, or a traditional market (pasar). Unfortunately, there are no recent estimates of how much of the fresh fruit and vegetables produced or imported passess through "wholesale markets" or "off-market channels" which is where wholesalers buy and sell from source to retailers withouth the intermediary having a location in a wholesale market (Natawidjaja et al. 2007).

Most of the large wholesale markets were built and managed by the government, such as Kramat Jati in Jakarta, and some large wholesale markets are privately owned, for example Caringin

in Bandung, West Java. Both wholesale markets, Kramat Jati and Caringin are still below international standards relative to the markets they serve. Kramat Jati serves around 20 million consumers in Jakarta and surrounding areas (Bogor, Depok, Tangerang, and Bekasi). It has 14 ha with 2186 fruit stalls and 2433 vegetable stalls. Compared to Kramat Jati, Caringin has 15 ha in order to serve a large province; West Java, with millions of people only has a third of the stalls of Kramat Jati (Natawidjaja et al. 2007: 21). The majority of wholesalers in both wholesale markets are fruit importers.

Modern retail, particularly large chains start to avoid relying on traditional wholesale markets for some main reasons including: 1) traditional wholesale markets are ineffecient due to many links or parties involved in the chain, which often charge 'informal fees' to retailers; 2) retailers find that traditional wholesale markets lack consistency in volume and quality, and poor handling and packaging. In the case of local fruit sourcing, modern retailers rely on large wholesalers who have inter-island operations to guarantee the continuity over seasons and quality. Generally, those large wholesalers usually have stalls in the main wholesale markets and serve all segments. Another method of local fruit sourcing performed by modern retail, particularly by large retailers, is direct sourcing from individual large farms and medium-sized farm companies. This second method is chosen to reduce margins paid to wholesalers, but in fact, it is difficult to compete with big wholesalers who move into the production zones and pay farmers in advance or pay a higher price near the point of delivery (Natawidjaja et al. 2007: 25).

As modern retail modernise their procurement systems, modern retail, particularly large super- and hypermarkets start to shift vegetables sourcing from wholesale markets to specialised dedicated wholesalers and medium/large commercial farmers even though they still use wholesale markets and/or large wholesalers as supplement. Specialised dedicated wholesalers and commercial farmers emerged to supply high volumes to supermarkets and other modern retailers that require stability of volumes and consistency of quality (Natawidjaja et al. 2007: 26).

6.3 The Modern Food Retail Development and Wholesalers Sales

As discussed in previous chapter (section 5.4.), fruit sales in super- and hypermarkets were were higher than that of vegetables, due to a number of reasons: consumers prefer to buy fruit in super- and hypermarkets because of freshness, high variety of assortment, and as particular super- and hypermarkets sell imported fruits cheaper than local fruits, consumers prefer to buy vegetables in traditional markets due to lower prices and freshness compared to super- and hypermarkets.

The sales data collected from modern retailers, wholesalers, and agricultural producers of fruits and vegetables in 2002-2011 (Table 6.1. and Table 6.2.) suggest that the wholesaler is the main source for vegetables sourcing in super- and hypermarkets. On average, the total share of vegetables supplied by agricultural producers to super- and hypermarkets in 2002-2010 was only 15.3%, while total share of wholesaler was 100% in the same period. Super- and hypermarkets prefer to source vegetables from wholesalers because wholesalers can guarantee stability of volumes and consistency in quality, particularly the specialised dedicated wholesaler. Unfortunately, super- and hypermarkets also prefer to source fruit from importers, and as a result of this the majority of fruit sold in modern retail is

imported, therefore the average share of local fruit supplied by local producers and wholesalers to modern retail was only 0.45% and 17.5% during 2002-2011.

Table 6.1 | Average Sales of Fruit and Vegetables in Modern Retail, Wholesaler and Agricultural Producer, West Java, 2002-2011 (IDR)*

	Modern Retail Sales		*Wholesaler Sales*		*Agricultural Producer Sales*	
Year	*Fruits*	*Vegetables*	*Fruits*	*Vegetables*	*Fruits*	*Vegetables*
2002	7,925,718,883	1,395,099,154	1,360,362,514	1,368,837,781	35,331,865	268,589,898
2003	10,060,004,902	1,793,199,857	1,703,620,967	3,416,016,152	44,247,107	336,362,827
2004	12,792,130,419	2,197,481,713	2,133,373,188	3,666,112,078	55,408,799	421,213,082
2005	5,780,326,586	8,801,284,256	2,396,004,101	3,767,581,259	62,229,952	473,066,914
2006	15,585,476,430	3,268,004,887	2,791,406,214	4,328,244,750	72,499,489	551,135,085
2007	20,600,567,157	3,568,146,994	3,211,338,749	5,048,850,640	83,406,141	634,046,541
2008	24,073,746,247	4,270,708,868	3,907,539,162	5,748,643,224	101,488,129	771,504,311
2009	27,894,402,822	5,031,692,268	4,584,458,811	6,813,854,289	119,069,350	905,155,288
2010	29,456,731,057	5,860,008,688	5,031,962,173	7,380,233,039	130,692,081	993,510,327
2011	33,702,684,119	6,302,908,127	5,779,041,909	5,815,046,228	150,095,527	1,141,013,707
Average	18,787,178,862	4,248,853,481	3,289,910,779	4,735,341,944	85,446,844	649,559,798

*(IDR = 0.0001USD)
Source: Survey (2012).

Table 6.2 | Share of Fruit and Vegetables Supplied by Wholesalers and Agricultural Producer in Modern Retail, West Java (%)

	Wholesaler Share		*Agricultural Producer Share*	
Year	*Fruit*	*Vegetables*	*Fruit*	*Vegetables*
2002	17.16	98.12	0.45	19.25
2003	16.93	190.50	0.44	18.76
2004	16.68	166.83	0.43	19.17
2005	41.45	42.81	1.08	5.37
2006	17.91	132.44	0.47	16.86
2007	15.59	141.50	0.40	17.77
2008	16.23	134.61	0.42	18.07
2009	16.44	135.42	0.43	17.99
2010	17.08	125.94	0.44	16.95
2011	17.15	92.26	0.45	18.10

Source: Survey (2012).

Growth of fruit and vegetables sales in super- and hypermarkets was quite stable except in 2005 and 2006 (Table 6.3). The global harvest failure in 2005 saw growth of fruit sales in super- and hypermarkets drop to its lowest point (-54.8%). Fruit wholesalers also experienced a decline in sales growth, but not

a significant one (25.2% in 2004 to 12.3% in 2005). Significant decline of fruit sales growth in modern retail was affected by shortage of import fruit supply due to the harvest failure in 2005, but also local fruit did not experience a sales decline as was seen with imported fruit.

However, sales of vegetables in modern retail showed a significant increase in 2005, but the growth decreased in the following year. In 2005, sales growth of vegetables wholesalers declined to the lowest point since 2002. What could this be attributed to? Significant increases in vegetables sales growth for modern retail in 2005 is evidence of increased consumption of vegetables due to the substitution of fruit consumption due to shortage of fruit supply in 2005. Due to modern retail, sourcing vegetables come not only from wholesalers, but also from commercial mediums/large farms or directly from the farmers or farmer groups, wholesalers experienced a decline in 2005.

Table 6.3 | Modern Retail Sales Growth vs Wholesalers Sales Growth of Fruit and Vegetables, West Java, 2002-2011 (%)

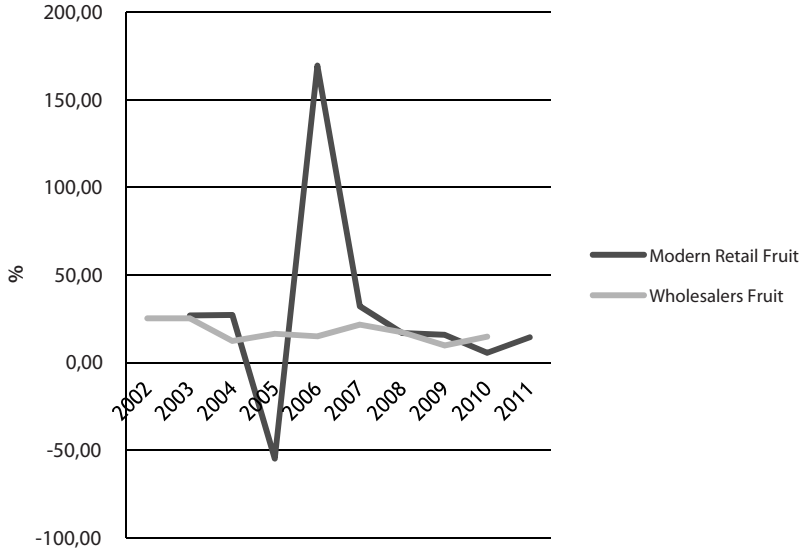
	Sales Growth (%)			
	Modern Retail		*Wholesalers*	
Year	*Fruit*	*Vegetables*	*Fruit*	*Vegetables*
2002	-	-	-	-
2003	26.93	28.54	25.23	149.56
2004	27.16	22.55	25.23	7.32
2005	-54.81	300.52	12.31	2.77
2006	169.63	-62.87	16.50	14.88
2007	32.18	9.18	15.04	16.65
2008	16.86	19.69	21.68	13.86
2009	15.87	17.82	17.32	18.53
2010	5.60	16.46	9.76	8.31
2011	14.41	7.56	14.85	-21.21

Source: Survey (2012).

Since 2006, fruit sales growth in super- and hypermarkets have tended to be stabile with the exception of 2010. However, in 2011 sales began to grow again. The same development occured with fruit wholesalers (Figure 6.1). It is hoped in the future that local fruit will start dominating market share in modern retail.

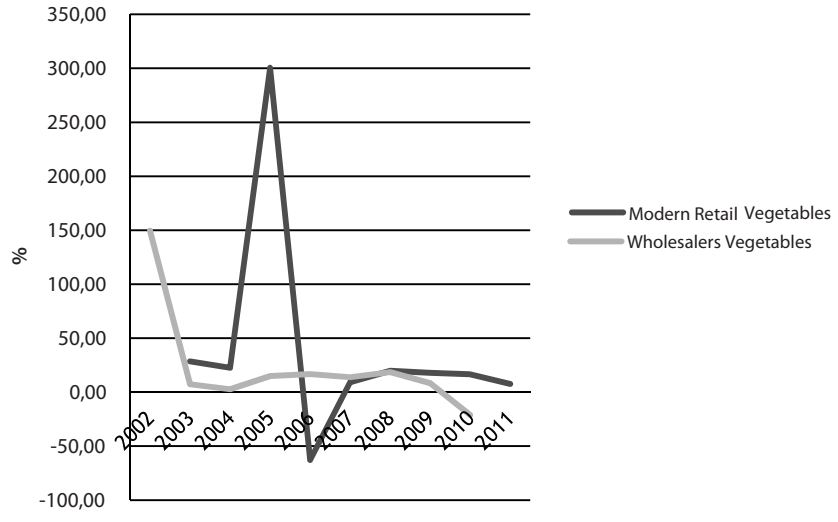
As specialised dedicated wholesalers and commercial farms are increasingly used by modern retail as local vegetables sourcing, (traditional) wholesalers' shares of super- and hypermarkets have started decreasing since 2010 (Figure 6.2).

Figure 6.1 | Sales growth of Fruit in Modern Retail and Wholesalers, West Java, 2002-2010 (%)



Source: Survey (2012).

Figure 6.2 | Sales growth of Vegetables in Modern Retail and Wholesalers, West Java, 2002-2010 (%)



Source: Survey (2012).

6.4 Hypothesis Testing

First of all, a paired samples tests were performed to test whether any differences between vegetables wholesalers profit and fruit wholesalers profit due to the development of modern retail, in particular the rise of super- and hypermarkets in West Java. The proposed hypothesis is:

H0: there is no difference between vegetables wholesalers' profit and fruit wholesalers' profit due to the development of super- and hypermarkets;

H1: there is a difference between vegetables wholesalers' profit and fruit wholesalers' profit due to the development of super- and hypermarkets.

Paired samples T test in SPSS statistic 17.0 was conducted and the result is presented in Table 6.4 Using a 95% confidence level, the paired samples T test between vegetables wholesalers and fruit wholesalers shows that the difference is significant (Sig. 2-tailed < 0.025), which means that development of super- and hypermarkets in West Java gives different benefits to vegetables wholesalers and fruit wholesalers.

Table 6.4 | Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	*Std. Deviation*	*Std. Error Mean*	*Lower*	*Upper*	*t*	*df*	*Sig. (2-tailed)*
Pair 1	Vegetable Wholesaler - Fruit Wholesaler	1.44543E9	2.68235E9	2.44864E8	9.60577E8	1.93029E9	5.903	119	.000

Do both wholesalers benefit from the development of super- and hypermarkets? The next hypothesis test will answer this question.

The regression results show a significance value less than 0.05 indicating that the hypothesis is accepted, which means that modern retail development positively benefits wholesalers of fruit and vegetables in West Java (Table 6.5-2). Using a 95% of confidence interval, the proposed model is statistically significant with a significance value of F (Table 6.5.-1).

Table 6.5-1 | Regression Output for Wholesalers of Vegetables and Fruit

		Model	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Vegetables Wholesalers	1	Regression	1.257E20	1	1.257E20	15.650	.000[a]
		Residual	9.479E20	118	8.033E18		
		Total	1.074E21	119			
Fruit Wholesalers	2	Regression	9.194E21	1	9.194E21	351.771	.000[a]
		Residual	3.084E21	118	2.614E19		
		Total	1.228E22	119			

Table 6.5-2 | Coefficients Dependent Variable Vegetables and Fruit Wholesalers Sales

			Unstandardised Coefficients		*Standardised Coefficients*		
		Model	*B*	*Std. Error*	*Beta*	*t*	*Sig.*
Vegetables Wholesalers	1	(Constant)	2.838E9	5.450E8		5.207	.000
		MR Sales of Vegetables	.447	.113	.342	3.956	.000
Fruit Wholesalers	2	(Constant)	1.427E9	1.037E9		1.376	.171
		Total Fruit Wholesalers	5.277	.281	.865	18.756	.000

An adjusted R square 0.110 and 0.747 shows that only 11.1% variation in vegetables wholesalers sales and 74.7% in fruit wholesalers sales are explained by this model.

The last question to be answered is "does modern retail development contribute to increased sales of several actors in the upstream part of the food value chain as part of the local economic development?" The next section of this chapter presents conclusions of the study and answers this question.

6.5 Modern Food Retail Development and Value Chain

To answer the major research question of the study, a regression analysis was conducted, using modern retail development in West Java as the independent variable and actors on the upstream side of the value chain as the dependent variable. The independent variable was measured using sales data from the fresh good category in super- and hypermarkets in 2002-2011, and the dependent variable was operationalised, as benefits gained by agricultural producers, local food processors and wholesalers. The regression results show a significance value less than 0.05 indicating that the hypothesis is accepted, which means that modern retail development positively supports the local economy of West Java (Table 6.6-1-2). Using a 95% of confidence interval, the proposed model is statistically significant with a significance value of F (Table 6.6-1). An adjusted R square 0.748 shows that 74.8% variation in West Java's local economy can be explained by this model.

Table 6.6-1 | Regression Output for Value Chain

Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
1	Regression	3.425E21	1	3.425E21	353.923	.000[a]
	Residual	1.142E21	118	9.676E18		
	Total	4.567E21	119			

Table 6.6-2 | Coefficients Dependent Variable

	Unstandardised Coefficients		*Standardised Coefficients*		
Model	***B***	***Std. Error***	***Beta***	***t***	***Sig.***
1 (Constant)	2.701E9	6.374E8		4.238	.000
MR Total Sales	.280	.015	.866	18.813	.000

6.6 Conclusions

Wholesalers play an important role in the supply chain of fruit and vegetables in developing countries. Modern retail does not prefer to source directly from farmers due to poor handling of orders leading to them being unable to produce a consistent quality and stability in volume. As modern retailers modernise their procurement systems, specialised dedicated wholesalers and commercial large farms emerge to fulfill the needs. However, (traditional) wholesalers are still used due to a limited number of specialised dedicated wholesalers and commercial large farms.

This study finds that development of modern retail in West Java, particularly the rise of super- and hypermarkets, has benefited the wholesalers of fruit and vegetables, even though imported fruit dominates the share of fruit sold in super- and hypermarkets. Perishability of fruit and, especially, vegetables encourages both farmers and wholesalers to create effective and efficient methods of and process for the handling of those goods.

Finally, this study supports the final hypothesis that the rise of super- and hypermarkets, as part of local economic development programme in West Java contributes to the actors on the upstream side of food value chain.

7 Modern Food Retail Development and Traditional Retailers[3]

7.1 Introduction

The province of West Java is the densest area in Indonesia exceeding 43 million inhabitants dispersed across 26 districts. Bandung is the capital city of this province has the biggest population with 7,083,700 people located in this area, followed by Bogor (5,722,266), and Bekasi (4,965,272) (Sensus Penduduk, Badan Pusat Statistik 2010).

Bandung as the capital city of West Java is the backbone of this province's economy through the existences of several sectors of high potential, i.e. tourism, manufacturing, and large scale retail. One of the fastest growing sectors in this city is modern retail. There were 17 department stores, 5 hypermarkets, 40 supermarkets, and 60 mini-markets in 2007 (Kementerian Perdagangan Republik Indonesia 2010), compared to only 75 of traditional retailers in the same year. Unfortunately, the number of traditional retailers, particularly the traditional market has been continuously decreasing since rapid development of modern retail. To create a healthy business environment, the government has issued a trade regulation in 2009, which consists of some important concepts such as fair trade, zoning regulation, and partnership between modern retailers and local merchants.

As the buffer city of Jakarta, Depok has experienced an intensive growth of modern retail. There were nine traditional markets surrounded by 62 modern retailers in 2006, and 46 of them were mini-markets, while there were also three new supermarkets beginning operation. As modern retailers exist in this area, traditional supermarkets and also traditional stores have been replaced by new supermarkets and other types of modern retail. This municipality has its own rules for regulating markets, including modern markets; however, there is nothing in these regulations to address some important issues, including rights and obligations of merchants, zoning regulations and, partnerships between modern retailers and local producers.

However, the development of modern retail has been posed a big question as to whether modern retailers negatively influence traditional retailers. Previous studies found that most of traditional retailers have had difficulties competing with the modern retailer which has resulted in reducing traditional stores share of sales and profit (Hernandez 2003; Peterson and McGee 2000, Seiders and Tigert 2000; Farhangmehr et al. 2000; Arnold and Luthra 2000; Vance and Scott 1994). But, there was an interesting finding from a study of traditional markets versus supermarkets in Hongkong, in that

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– Sunanto, S., A.H.P. Anggawijaya, L.R. Adriani and M. Palesangi (2010) 'A Study of Modern Market Impact on Consumer Shopping Behavior and Traditional Market in West Java, Indonesia', paper presented at the 3rd Asia Pacific Marketing Conference, Sarawak, Malaysia (8-11 December).
– Sunanto, S. (2012). "Modern Retail Impact on Store Preference and Traditional Retailers in West Java", Asian Journal of Business Research, vol.2 no.2: 7-23.

consumers perceived wet markets and supermarkets as complementing one another and as being equally important (Goldman et al. 1999).

Indonesia defines traditional retailers as merchants who sell their merchandise in a small store owned by them or rent a space located in a traditional market or near a traditional market and/or residential area. They own and operate their business by themselves with 2-5 employees and usually involve their family members. However, there is one type of traditional retailer who sells merchandises openly on the pedestrian area namely the street hawker. There are some types of traditional retailer known in this country: 1) traditional (wet) markets (pasar); 2) small kiosks, called *warung*; 3).mom and pop store; and 4).street hawkers. The traditional market (pasar) is perceived as an old building, wet and dirty, and unsafe, hence, it creates an inconvenient shopping environment due to bad management. It is supported by the fact that 67% of current traditional markets were built between 1976 and 1979 and most of them have never been renovated (Muslimin et al. 2010).

The role of traditional markets in providing goods needed by consumers is very important, which is shown from the major variety of goods offered in traditional markets. Most of goods sold in traditional markets are staple goods such as rice, flour, sugar, fish, eggs, and cooking oil (57.8%), foods and beverages (20%), groceries (16%), clothes and shoes (12.2%), and other goods such as building materials, medicines, electronic goods (10%) (Muslimin et al. 2010).

The development of modern retail provides more choices for consumers to decide where they can do shopping. Consumers start to prefer buying groceries in super- and hypermarkets compared to the traditional markets, because of cleanliness, and conveniences. However, a previous study found that traditional markets still were the most favourite places for shopping fresh goods markets (Goldman et al. 1999), and particulary, modern market entry in West Java did not significantly influence the business performance of traditional markets (Suryadarma, et al. 2007).

The Suryadarma et al. study (2007) focussed only on the impacts of super- and hypermarkets in two major cities in West Java on traditional markets, and considering ongoing debates on modern retail development, this study tries to provide more thorough analysis by including not only super-, hyper-, and traditional markets, but also mini- markets, and other traditional retailers as the unit analysis. The objective of this chapter is to analyse the impact of modern retail development on the traditional retailers i.e. traditional markets, small kiosks, traditional grocery stores, and street hawkers.

7.2 Hypothesis

A previous study on large retailer impact on the performance of existing retailers showed there was such rapid market penetration in the initial growth stage, that it caused a decline in the sales of local retail stores, and growth and decline in various commercial sectors caused by large retailer entry (Arnold and Luthra 2000). Where the large retailers penetrate markets aggressively, indigenous retailers experience a decline in sales, market share, and profits. Research on Wal-Mart entry in the East Coast region of the US shows that local supermarkets lost 17% in sales volume amounting to a quarter of a million dollars of monthly revenue following Wal-Mart's entry (Singh et al. 2004).

Study on hypermarkets entry in Malaysia shows that traditional outlets such as independent grocers and mini-markets gradually closed. Emergence of modern retailing such as super- and hypermarkets filled this gap (Shamsudin and Selamat 2005). Local traditional retailers face intense competition from foreign hypermarkets and try hard to maintain their customers; however, they experience declining sales with low turnover.

Most of local and traditional retailers face difficulties in competing with large format retailers as indicated by a declining market share, sales, and profit (Hernandez 2003; Peterson and McGee 2000, Seiders and Tigert 2000; Farhangmehr et al. 2000; Arnold and Luthra 2000; Vance and Scott 1994). This phenomenon does not only happen in the host market, but also in the neighbouring markets. The impact of a large format retailer entry such as Wal-Mart may change not only the total sales, but also the distribution of sales through the various types of retail categories in the host community where Wal-Mart exists (Davidson and Rummel 2000; Stone 1995).

Stone's study (1995) finds that all retail categories except food or grocery stores in the non- Wal-Mart towns were negatively affected after five years of Wal-Mart's entry. There are two rules of thumbs recommended by Stone:

1) Merchants selling items that differ from those sold by the large format retailers will probably not experience a loss of sales. In fact, if these stores are in close proximity to the discount stores, they experience an increase in sales after the discount store opens because they benefit from the "spillover" of the additional traffic generated by the discounter.
2) Merchants selling the same things that the large format retailers are selling will probably experience a decrease in sales after the discounter opens. This applies not only to merchants in the local area, but those in the neighbouring areas.

Davidson and Rummel (2000) also find that Wal-Mart neighboring towns experienced a decline, or only small increases in retail trade during the same period with the Wal-Mart host towns. Other research supported the facts that the entry of large format retailer stimulates growth in certain retail categories, but leads to a decline in other categories (Arnold and Luthra 2000; Stone 1995). Based on those previous studies, this study proposes a hypothesis that modern retailers negatively influence traditional retailers' performances.

7.3 Research Methods

This study performed a survey conducted in three major cities in West Java – Bandung, Bogor and Depok, considering that in those cities we can find mini-, super- and hypermarkets, that were established in 2003-2007. The samples of this study are traditional retailers who operated their businesses at least two years before the entry of modern retailers in their areas.

The questionnaire (Appendix A.3) was delivered to 300 traditional retailers. Traditional retailers were asked to report their business performances in terms of sales and buyer numbers after the entry of modern retailers in their areas.

A cluster sampling method was used to select the samples from traditional retailers who started their business in 2003-2007, and are located within a radius of 5 kms from the nearest modern retailers. This survey measured the effect of modern retail entry on traditional retailers' sales and the number of buyers, whether their sales and number of buyer decreased, increased or did not experience any changes. Using a non- parametric Chi-square test, this study wants to determine whether changes of traditional retailers sales and number of buyers varies after the entry of modern retailers. The results of Cronbach's Alpha test is 0.590, which means that all questions asked in the questionnaire are reliable enough to be used for this study.

7.4 Findings and Discussions

Generally, the majority of traditional retailers in this study have run their business since ten years ago with stores located in traditional markets or near the residential areas. Considering that the supermarket was the first modern retail introduced in Indonesia and this format was aggresively developed in the 90s, supermarkets in Bogor dominated the retail market in 1990-1995, while in Bandung supermarkets developed aggresively in 1996-2005. Other formats, mini- and hypermarkets started their expansions in West Java since 2000 and 2005. Bandung is the most favourable market in West Java due to large population numbers and higher people's incomes compared to other cities (Table 7.1-2-3).

Table 7.1 | Number of Mini-Market Entry in West Java, 2001-2009

		Year		
City		***2001-2005***	***2006-2009***	***Total***
Bogor	Count	0	1	1
	%	0	1.4	0.9
Depok	Count	0	3	3
	%	0	4.2	2.8
Bandung	Count	38	67	105
	%	100	94.4	96.3
Total	Count	38	71	109
	%	100	100	100

Source: Survey (2009).

Table 7.2 | Number of Supermarket Entry in West Java, 2001-2009

		Year				
City		***1990-1995***	***1996-2000***	***2001-2005***	***2006-2009***	***Total***
Bogor	Count	95	0	0	0	95
	%	100	0	0	0	43.2
Depok	Count	0	0	20	0	20
	%	0	0	23.5	0	9.1
Bandung	Count	0	38	65	2	105
	%	0	100	76.5	100	47.7
Total	Count	95	38	85	2	220
	%	100	100	100	100	100

Source: Survey (2009).

Table 7.3 | Number of Hypermarket Entry in West Java, 2001-2009

		Year			
City		***1996-2000***	***2001-2005***	***2006-2009***	***Total***
Bogor	Count	0	0	77	77
	%	0	0	36.8	27.6
Depok	Count	54	14	29	97
	%	100	87.5	13.9	34.8
Bandung	Count	0	2	103	105
	%	0	12.5	49.3	37.6
Total	Count	54	16	209	279
	%	100	100	100	100.0

Source: Survey (2009).

7.4.1 Modern Food Retail and Traditional Retailers Performances

The impact of modern retail on traditional retailers' performances is measured by decrease or increase in their sales and number of buyers after the entry of modern retailers. Mini-markets did not significantly influence all traditional retailers, but they had a slightly negative impact on sales of traditional markets and kiosks (Table 7.4).

Table 7.4 | Sales Changes Due to Mini-Market Entry (%)

	Sales					
	Decrease		*No change*	*Increase*		*Total*
	More than 50%	*Less than 50%*		*Less than 50%*	*More than 50%*	
Traditional markets	2.5	15.6	51.6	0	0.8	70.5
Kiosk	9	6.5	7.4	0	0	22.9
Street hawkers	0	2.5	4.1	0	0	6.6
Total	11.5	24.6	63.1	0	0.8	100

Source: Survey (2009).

Similar patterns were also evident when supermarkets appeared in close proximity to traditional retailers (Table 7.5). Traditional markets faced larger sales reductions than other traditional retailers, due to the shift of consumer preferences for supermarkets with fresh goods, food and beverages, and toiletries.

Table 7.5 | Sales Changes Due to Supermarket Entry (%)

	Sales					
	Decrease		*No change*	*Increase*		*Total*
	More than 50%	*Less than 50%*		*Less than 50%*	*More than 50%*	
Traditional markets	2.4	25.8	30.5	1.0	0	59.7
Kiosk	2.4	12.7	18.3	2.0	0	35.4
Convenience stores	0	0.5	0.5	0	0	1.0
Street hawkers	0	0.5	1.5	1.9	0	3.9
Total	4.8	39.5	50.8	4.9	0	100

Source: Survey (2009).

Although hypermarkets offer a large selection of goods and a different store atmosphere, the majority of traditional retailers found no significant sales reductions following the entry of hypermarkets, the exception being for some merchants selling similar goods in traditional markets experienced a sales decrease (Table 7.6).

Table 7.6 | Sales Changes Due to Hypermarket Entry (%)

	Sales					
	Decrease		*No change*	*Increase*		*Total*
	More than 50%	*Less than 50%*		*Less than 50%*	*More than 50%*	
Traditional markets	2.5	22.8	34.7	0.4	0.4	60.8
Kiosks	0.4	11.0	13.6	0.7	0.4	26
Convenience stores	0.8	4.0	4.8	0	0	9.6
Street hawkers	0	0.7	2.9	0	0	3.6
Total	3.7	38.5	56	1.0	0.8	100

Source: Survey (2009).

In fresh goods category (vegetables, fruit, meat and fish), traditional markets experienced significant losses, due to modern retail compared to other traditional retailers (Table 7.7-10). The majority of vegetables and fruit sales in traditional markets decreased with less than 50% compared to previous sales before the entry of mini-, super-, and hypermarkets. Street hawkers who usually offer fresh goods door to door in residential areas, using a small cart, also experienced sales decline soon after the entry of modern retail, but not as bad as the traditional markets.

Consumers shifted their preferences to modern retail, particularly to super- and hypermarkets for buying vegetables, fruit, meats and fish due to cleanliness, quality, variety of assortments, and in particular, a cheaper price for imported fruit. Super- and hypermarkets have a competitive advantage over traditional retailers in presenting merchandise displays in their stores, which are able to attract consumers and to give conveniences in doing shopping that cannot be found in the traditional markets and other traditional retailers. There are still many people doing daily shopping for vegetables, meats and fish from street hawkers around their residential areas because they do not need to spend more time and money for transportation to go to super- and hypermarkets, or to traditional markets. However, consumers do not find the same quality of goods in term of freshness offered by street hawkers as super- and hypermarkets do.

Table 7.7 | Vegetables Sales Changing Due to Modern Retail Entry (%)

	Sales			
	Decrease	*No Change*	*Increase*	*Total*
Type of Retail	*Less than 50%*		*Less than 50%*	
Traditional market	65.4	15.4	1.9	82.7
Convenience store		1.9		1.9
Street Hawker	7.7	7.7		15.4
Total	73.1	25	1.9	100

Source: Survey (2009).

Table 7.8 | Fruit Sales Changing Due to Modern Retail Entry (%)

	Sales				
	Decrease		*No Change*	*Increase*	*Total*
Type of Retail	*More than 50%*	*Less than 50%*		*Less than 50%*	
Traditional market	4.3	52.3	4.3	4.3	65.2
Kiosk				4.3	4.3
Convenience store			4.4	4.4	8.8
Street Hawker		13	8.7		21.7
Total	4.3	65.3	17.4	13	100

Source: Survey (2009).

Table 7.9 | Meat Sales Changing Due to Modern Retail Entry (%)

	Sales			
	Decrease		*No Change*	*Total*
Type of Retail	*More than 50%*	*Less than 50%*		
Traditional market	2.6	31.6	28.9	63.1
Kiosk			13.2	13.2
Convenience store			2.6	
Street Hawker		13.1	8	21.1
Total	2.6	44.7	52.7	100

Source: Survey (2009).

Table 7.10 | Fish Sales Changing Due to Modern Retail Entry (%)

	Sales			
	Decrease		*No Change*	*Total*
Type of Retail	*More than 50%*	*Less than 50%*		
Traditional market	6.3	31.2	6.2	43.7
Convenience store			6.3	6.3
Street Hawker		25	25	50
Total	6.3	56.2	37.5	100

Source: Survey (2009).

The same condition also happened to the sales of eggs and toiletries in traditional markets and kiosks (warung) (Table 7.11-12), that both of traditional retailers experienced significant sales decline after the entry of mini-, super- and hypermarkets in their areas. Modern retailers offer lower prices of eggs and toiletries compare to traditional retailers because they can get lower prices and trade discount from buying those goods in large quantities from the producers. Therefore, it is a common fact that traditional retailers buy eggs and toiletries from super- and hypermarkets because they find

that it is cheaper to get the supplies from super- and hypermarkets compares to buy those directly from producers. Kiosks that usually own and operate by independent merchants experienced more significant sales decline for toiletries than merchants in traditional markets (Table 7.12) because, usually, consumers prefer to buy toiletries such as soap, shampoo and toothpaste at kiosks or traditional convenience stores.

Table 7.11 | Egg Sales Changing Due to Modern Retail Entry (%)

	Sales				
	Decrease		*No Change*	*Increase*	*Total*
Type of Retail	*More than 50%*	*Less than 50%*		*Less than 50%*	
Traditional market	8.9	15.6	6.7		31.2
Kiosk	15.5	33.3		2.3	51.1
Convenience store		11.1	2.2		13.3
Street Hawker		4.4			4.4
Total	24.4	64.4	8.9	2.3	100

Source: Survey (2009).

Table 7.12 | Toiletries Sales Changing Due to Modern Retail Entry (%)

	Sales			
	Decrease		*No Change*	*Total*
Type of Retail	*More than 50%*	*Less than 50%*		
Traditional market	7.4	3.7	5.6	16.7
Kiosk	16.7	55.5	5.6	77.8
Convenience Store		3.6	1.9	5.5
Total	24.1	62.8	13.1	100

Source: Survey (2009).

A slightly different result is presented in Table 7.13, which shows that half of traditional retailers did not experience any changes in rice sales due to the entry of mini-, super- and hypermarkets, while 37.8% of traditional retailers' sales declined less than 50% and 10.8% of them experienced sales decline more than 50%. This indicates that modern retailers do not significantly influence consumers to shift their preference to buy rice at mini-, super- and hypermarkets. Rice is a staple good for Indonesian consumers that does not have many varieties compared to fruit, vegetables, and toiletries. Generally, consumers pay more attention on rice quality and price, and they are not too interested with product display and packaging.

Table 7.13 | Rice Sales Changing Due to Modern Retail Entry (%)

	Sales			
	Decrease		*No Change*	*Total*
Type of Retail	*More than 50%*	*Less than 50%*		
Traditional market	8.1	18.9	24.4	51.4
Kiosk	2.7	13.5	21.6	37.8
Convenience store		2.7	2.7	5.4
Street Hawker		2.7	2.7	5.4
Total	10.8	37.8	51.4	100

Source: Survey (2009).

Does modern retail development negatively influence traditional retailers sales? Using SPSS 17.0, the Chi-Square test with 95% level of confidence shows a significant result of hypothesis testing (Sig. < 0.025), which means that the mini-, super-, and hypermarkets development in West Java negatively influenced the traditional retailers sales. (Table 7.14).

Table 7.14 | Traditional Retailers Sales Change Using Chi-Square Test

	Sales after Mini-market entry	*Sales after Supermarket entry*	*Sales after Hypermarket entry*
Chi-Square	200.525	237.359	491.949
df	5	5	6
Asymp. Sig.	.000	.000	.000

Source: Survey (2009).

Traditional markets acquired the worst impact from the entry and development of mini-, super- and hypermarkets shown by the decrease in sales and number of buyers followed by another traditional retailer format, the kiosk (Table 7.4-6 and Table 7.15-17).

Table 7.15 | Number of Buyers Changing after Mini-Market Entry

	Number of Buyer			
	Decrease		*No Change*	*Total*
Type of Retail	*More than 50%*	*Less than 50%*		
Traditional market	3.3	15.7	52.1	71.1
Kiosk		15.7	6.6	22.3
Street Hawker		2.5	4.1	6.6
Total	3.3	33.9	62.8	100

Source: Survey (2009).

Table 7.16 | Number of Buyers Changing after Supermarket Entry

	Number of Buyer				
	Decrease		*No Change*	*Increase*	
Type of Retail	*More than 50%*	*Less than 50%*		*Less than 50%*	*Total*
Traditional Market	1.9	24.4	31.6	1	58.9
Kiosk	0.5	16.7	17.7	1.4	36.3
Convenience Store		0.5	0.5		1
Street Hawker		2.8	1		3.8
Total	2.4	44.4	50.8	2.4	100

Source: Survey (2009).

Table 7.17 | Number of Buyers Changing after Hypermarket Entry

	Number of Buyer				
	Decrease		*No Change*	*Increase*	
Type of Retail	*More than 50%*	*Less than 50%*		*Less than 50%*	*Total*
Traditional Market	1.8	21.7	36.8	0.4	60.7
Kiosk		11.8	14	0.4	26.2
Convenience Store	0.8	3.6	5.1		9.5
Street Hawker		0.7	2.9		3.6
Total	2.6	37.8	58.8	0.8	100

Source: Survey (2009).

On average, traditional markets and kiosks' sales and number of buyers decreased with less than 50% after the entry of modern retail, but at least, half of them did not experience any changes in both sales and number of buyers. It is referred to as an interesting fact that there are still many consumers in West Java who are not influenced to shift their preferences totally from traditional retailers to modern retailers.

However, the Chi-Square test result shows that the entry of mini-, super- and hypermarkets also negatively influences the number of buyers in traditional retailers, which means that as soon as modern retailers exist in an area, number of buyers in traditional retailers starts to decline (Table 7.18).

Table 7.18 | Traditional Retailers Number of Buyers Change Using Chi-Square Test

	Number of Buyer after Mini-market entry	*Number of Buyer after Supermarket entry*	*Number of Buyer after Hypermarket entry*
Chi-Square	99.595	239.622	422.456
df	3	5	5
Asymp. Sig.	.000	.000	.000

7.5 Conclusions

Development of modern retail in developing countries leads to discussion about its negative impact on traditional retailers. This study tries to examine the effects of modern retail development on traditional retailers, particularly in three major cities in West Java. Conducting a survey to traditional markets, kiosks, convenience stores, and street hawkers in those three cities, this study found that the number of traditional markets has reduced in some cities. The findings also support the hypothesis that modern retail development negatively influences traditional retailers' performances in term of sales and number of buyer. Traditional markets experienced the worst impact due to the entry of mini-, super- and hypermarkets.

Considering the pros and cons of modern retailers, particularly in Indonesia, this study presents findings that could be useful for traditional retailers to identify areas of opportunity in the face of strong competition from modern retailers.

It is acknowledged that governments play an important role in developing the competitiveness of traditional retailers; however, government must also manage the development of modern retailers in order to provide win-win solutions for all stakeholders..

This study has a limitation by using categorical data to investigate sales trends of traditional retailers due to the development of mini-, super-, and hypermarkets. Future research should explore the impacts of modern retail development on other important issues, such as the local economy and environment. A comparative study between two countries with different characteristics is also an interesting option to be explored.

8 Conclusions and Recommendations

8.1 Introduction

The previous chapters presented the development of super- and hypermarkets in West Java, Indonesia and its impacts on consumers shopping behaviour (section 4.4), agricultural producers and food processors (chapter 5), wholesalers (chapter 6) and traditional retailers (chapter 7). This chapter synthesises and draws conclusions from the study. The first section summarises the content and empirical findings of the study. In the next section, the conclusions are formulated and the last section presents the contributions of the study.

The study proposes four recommendations to retail practitioners, particularly owners and managers of modern retail, traditional retailers, suppliers and government. All members in the chain should benefits from the development of modern retail; in this study the focus is on super- and hypermarkets development in West Java, Indonesia.

The study also contributes to the literature of retailing of which the majority of literatures in retailing presents the concepts and practices in developed countries. This study enriches the literature with its conceptual framework and findings that focussed in a developing country, which has different market characteristics, environment and challenges.

8.2 Findings

Rapid urbanisation, retail liberalisation and mass investments in urban real-estate have led to the development of modern retail, particularly the rise of super- and hypermarkets in Indonesia after the political and financial crisis in 1998. Retail development encourages the local economy not only by preventing leakage of money out of the area, through providing services and facilities that stimulate people to stay in the area to make use of them, but also by supporting local producers, processors and wholesalers. However, super- and hypermarket development also brings controversy regarding its impact on local small producers and traditional retailers.

This study tries to answer whether the development of super- and hypermarkets in Indonesia, particularly in West Java encourages the local economy through benefits acquired by local producers, local processors and wholesalers by becoming supply sources for super- and hypermarkets. The study also investigates the impacts of modern retail development on consumers and traditional retailers. The study uses the case of Bandung, West Java, Indonesia. Bandung as the capital of the province of West Java, faces a dynamic development in its retail sector, in particular the development of modern food retail, such as mini-, super- and hypermarkets. The study finds that super- and hypermarkets development in West Java supports the actors on the upstream side of the value chain, which are part

of the local economy through their benefits for agricultural producers, local food processors and wholesalers. Consumers shift their store preferences from traditional retailers to modern retailers, due to some main reasons such as product availability, product quality, price and assortment. Consequently, traditional retailers, particularly traditional markets experience negative impacts due to the entry of modern retail, which causes their sales and number of buyer decrease.

The development has seen the emergence of some controversies, despite its contributions to the local economy. Super- and hypermarkets threaten traditional retailers who usually have no competitive advantages over modern retailers, due to a lack of capital and skills. Another issue is whether the development of super- and hypermarkets benefits their suppliers (producers, processors and wholesalers), particularly small and medium scale suppliers. The study focusses on the fresh goods category including fruit, vegetables, meat and local dairy products considering that those particular goods are supplied by local producers and/or local processors. Local fruit and vegetables producers in West Java benefit from the development of super- and hypermarkets in this province even though imported fruit dominate the assortment in super- and hypermarkets fruit category. The development of super- and hypermarket increases sales of local dairy products such as tempe and tofu increase and meat, particularly processed meat such as meatballs, nuggets and sausages. The result of regression shows that local food processors benefit from the rise of super- and hypermarkets in West Java.

This thesis has three main parts. Part one of the thesis presents background introduction and research objectives. Part two presents conceptual framework and the hypotheses built from previous studies, and research methods performed in the study. The last part of the thesis presents the analysis of modern food retail development and its impacts on consumers, agricultural producers local food processors, wholesalers and traditional retailers.

In chapter 1, the phenomena of modern food retail development was introduced, this included the main factors causing the development and problems faced, due to the the rise of super- and hypermarkets in Indonesia. Moreover, previous research on modern food retail development and its impacts were also presented to show the major focus of that research. The reality described in this chapter and previous research on modern food development, particularly super- and hypermarkets, uncovers the impacts of super- and hypermarket development in Bandung, West Java on the actors in the value chains as part of the local economy. This impacts are measured by the benefits acquired by agricultural producers, local food processors and wholesalers. The study focusses on fruit and vegetables producers and wholesalers, and local dairy products processors. The study also presents findings from the investigation of modern food retail development on consumers preferences and traditional retailers.

In chapter 2, six theoretical sections are presented. The food system is closely related to agricultural system and local economy, which means that a more sustainable food and agriculture system focussed on local markets, can contribute to the society (Natawidjaja et al. 2007; Conner et al. 2008). However, the food system does not only involve the producers e.g. agriculture producers and consumers or societies, but also retail companies at the bottom of the economic food chain (Brammer and Tomasik 1995). Their framework proposes that retail development, which is indicated

by the growth of modern food retail such as supermarkets in urban areas make the local economy larger and more self-sufficient by keeping retail purchases inside the local economy. The development brings some economic benefits to the local economy e.g. tax revenue, jobs and incomes, increase of productivity, increase of standards of living, value increase of land and building, and decrease prices which give more benefits to consumers (England 1997; Pittman and Rhonda 1995; Brammer and Tomasik 1995; Phillips 2000, Basker 2005). With regards to those previous studies, this study presents a comprehensive analysis of the effects of super- and hypermarkets development on consumers, local producers and processors, wholesalers and traditional retailers in a developing country. The conceptual framework and hypotheses of the study are built on previous studies. From it, the analytical framework is derived and the operationalisation variables is provided in chapter 3.

In chapter 3, the research methods of the study are presented. This includes the units of analysis, sampling method, data collection techniques, and general analytical model conducted to test the proposed hypotheses. Modern food retail in the study is defined as super- and hypermarkets, while agricultural producers are local fruit and vegetables farmers who sell their produce to super- and hypermarkets in West Java. Local food processors are local companies that produce local dairy products and meat, and sell them to super- and hypermarkets in West Java. The wholesaler in the study are independent merchants who buy or collect fruits and vegetables in large volume and supply that produce to super- and hypermarkets in West Java. A survey using questionnaires and interviews was conducted to collect data from consumers, retailers, agricultural producers, local food processors and wholesalers in West Java. Non-parametric statistical tests, such as McNemar and Chi-Square tests were conducted to test the hypotheses in consumers and traditional retailers studies, while regression analysis was conducted to test the hypothesis that modern food retail development benefits agricultural producers, local processors and wholesalers.

In chapter 4, the impact of modern food retail development on consumer preferences was studied and a survey of 550 respondents in three cities in West Java was performed. The survey collected data on consumers store preferences for shopping groceries before and after modern retail entry and consumers perceptions on the store attributes of modern retail. McNemar and Rank Spearman tests were performed to test the hypotheses. The study found that product availability with good quality, prices, and assortment were the main reasons why consumers shifted their store preferences from traditional retailers to modern retailers. The next section, chapter 5, presented a thorough analysis on the development of super- and hypermarkets in West Java and their impact on agricultural producers of fruit and vegetables and on local processors of dairy products and meat.

Chapter 5 starts with an overview of food consumption and the value chain of fruit, vegetables, dairy products and meat, the results in chapter 5 identify that traditional agricultural producers or farmers and small scale processors face difficulties with the modern retail procurement systems. Sales of fruit and vegetables in super- and hypermarkets increased, but the share of local fruit in modern retail was low because super- and hypermarkets prefer to sell imported fruit due to the lower prices and consistency in supply and quality. The results of this hypothesis testing indicate that agricultural producers and local food processors benefit from the development of super- and hypermarkets in West Java. However, on average, almost 65% of local dairy products sold in super- and hypermarkets

are sourced from local dairy producers, while the share of local processed meat products was only 13%. Consumers still prefer to buy meat and processed meat products in the traditional markets due to cheaper prices and freshness. Local meat processors also prefer to supply their products to traditional retailers, because there are no trading terms and complicated procedures such as the procurement systems of modern retail.

Further analysis was conducted to investigate the impacts of development on small, medium and large producers and processors. All fruit and vegetables producers/farmers benefit from the development of super- and hypermarkets in West Java, except for small vegetables farmers. Large local dairy processors dominate the shares of dairy products sold in super- and hypermarkets; however, the shares of local meat products are really low. All local food processors benefit from the development.
In chapter 6, the focus is on at fruit and vegetables wholesalers. The role of wholesalers in the value chain of fruit and vegetables in Indonesia is quite dominant, because farmers, in particular small farmers, are not able to sell their produces directly to super- and hypermarkets due to their inabilities to guarantee production capacity and quality consistency. As modern retail modernises their procurement systems, the specialised and dedicated wholesaler were introduced and started to replace the traditional wholesalers as a source for modern retailers. One of the success stories of a specialised and dedicated wholesaler is Bimandiri, which is presented in Box 6.1. Bimandiri started his business as a specialised dedicated vegetables wholesaler for Carrefour Indonesia, and the business became bigger along with the development of Carrefour.

Super- and hypermarkets prefer to source fruit from the importers, while large wholesalers are the preferred source for local fruits. The main source for vegetables in modern retail are specialised dedicated wholesalers and commercial farmers. Super- and hypermarkets start to reduce traditional wholesalers as their sources because: 1) traditional wholesalers are inefficient; 2) traditional wholesalers can not guarantee consistency in volume and quality; and 3) traditional wholesalers have poor handling and packaging. A paired samples tests was performed to find out whether there were any differences between vegetables wholesalers profits and fruit wholesalers profits, due to the development of super- and hypermarkets in West Java. The result shows that the profit of both wholesalers is different; furthermore the hypothesis was tested using regression analysis and the result is found to be significant. The result of regression analysis concludes that the development of super- and hypermarkets in West Java benefits the wholesalers of fruit and vegetables.

The last section in chapter 6 analyses the impacts of super- and hypermarkets development on actors on the upstream side of value chains. Using the proposed conceptual framework of local economy in chapter 2, the study finds that the development of super- and hypermarkets in West Java significantly benefits all actors in the value chains.

Finally, in chapter 7, the impact of modern retail development on traditional retailers was analysed using questionnaires delivered to 300 traditional retailers in three cities in West Java; these included traditional markets, kiosks, convenience stores, and street hawkers. The performance of traditional retailers after the entry of mini-, super- and hypermarkets into their areas was measured using sales and numbers of buyers to find out whether those modern retailers caused decreased sales and numbers of buyers of those traditional retailers.

The result indicates that traditional markets experienced the worst impact of modern retailers, particularly in fresh goods category (fruit, vegetables, meat, and fish), while kiosks, namely warung experienced significant losses in egg and toiletries categories. The Chi-Square test results show that the entry of mini-, super- and hypermarkets in West Java decreased sales and numbers of buyers of traditional retailers.

8.3 Conclusions

The entry and development of modern food retail, such as super- and hypermarkets always brings pros and cons, not only in developing countries but also in developed countries. The rise of super- and hypermarkets in Indonesia started in 1999 and this phenomenon brings debates among retail practitioners, researchers, government, and society. The development of super- and hypermarkets in this country brings benefits for consumers through shopping conveniences with good product quality and availability, and sometimes lower prices compared to traditional retailers. Consequently, as consumers shift their preferences from traditional retailers to super- and hypermarkets, sales and number of buyers in traditional retailers start to decline. Another issue regards the contributions of super- and hypermarkets development to their suppliers, in particular local suppliers include producers, processors and wholesalers.

What makes this study different? Using West Java as the case, this study presents a comprehensive analysis of the impacts of modern food retail development, in this case is super- and hypermarket as part of the local economic development programme on key actors in the value chains; agricultural producers, local food processors and wholesalers. Studies on consumers store preferences and traditional retailers enrich the study. The findings of this study may be used by other countries with similar characteristics, such as Brazil and Thailand to develop their economies, using a retail development strategy.

As consumers shift their grocery shopping to modern retailers, due to the entry and development of modern retail, traditional retailers start to experience the impacts of the development. Unfortunately, traditional retailers, particularly traditional markets experience significant losses in sales and number of buyers. The study finds that modern retailers have competitive advantages over traditional retailers in assuring the availability and quality of products, store conveniences and lower prices. Due to a lack of resources and skills, traditional retailers are difficult to compete with modern retailers. Consequently, there was a significant decline in numbers of traditional market in West Java in the last decade. Old and dirty buildings, poor product handling and quality, poor product display and packaging are major weaknesses of traditional retailers.

Focussing on the fresh goods category, this study shows a consistency between the shift of consumer preferences to super- and hypermarkets, and an increasing trend of fruit, vegetables, dairy products and meat sales in those modern retailers. As sales of those goods increase, super- and hypermarkets need more supplies from the reliable sources to guarantee the consistency of quality and volume. Producers and processors who are able to meet the requirements of super- and hypermarkets procurement systems benefit from the development of super- and hypermarkets.

However, modern retailers prefer not to source directly from small producers due to their inabilities to produce consistent volume and quality, and their inabilities to meet the trading terms. Usually small producers, in this case are farmers, sell their produces directly to traditional wholesalers and/ or specialised dedicated wholesalers who then sell the collected produces from farmers or farmers groups to super- and hypermarkets. As part of modern retail contributions to the local economy, a large retail chain through its specialised and dedicated wholesalers helps small farmers to upgrade their knowledge and skills in the production of their farms.

Local dairy products have higher shares in the super- and hypermarkets fresh goods category compared to the shares of fruit, vegetables and meat. Local dairy processors acquire significant benefits from the development of super- and hypermarkets, due to their abilities to fulfil the requirements. High shares of local dairy products in super- and hypermarkets indicate that consumers prefer to buy local dairy products, such as tofu and tempe in super- and hypermarkets. An attractive product display, a high quality products with good packaging attract consumers to buy those products in super- and hypermarkets.

The share of local processed meat, such as meatballs, sausages and nuggets in super- and hypermarkets is not high, because local meat processors can not compete with big (foreign) companies with well-know brands. Local food processors of meat also do not prefer to sell their products to super- and hypermarkets, due to the trading terms. Consumers usually prefer to buy local processed meat in traditional markets or directly from the processors. However, the study finds that local food processors, in this case, are dairy processors and meat processors who benefit from the development of super- and hypermarkets.

Another key member in the modern food retail value chain is the wholesaler. The wholesalers play an important role as intermediaries between local fruit and vegetable farmers, particularly between small farmers and modern retailers. Generally, the wholesale sector in Indonesia is characterised as the network of small traders and medium or large wholesalers operating in the field and buying directly from farmers, then passing the product to several parties including wholesale markets, until it reaches the retailer who might be a supermarket or a hypermarket, a small shop, a street vendor, or a traditional market (pasar).

Specialised and dedicated wholesalers have been known since modern retailers modernise their procurement systems. Specialised and dedicated wholesalers collect fruit and vegetables directly from farmers, usually from small farmers or farmer's groups based on orders from super- and hypermarkets. Some specialised wholesalers help farmers by giving assistance in production techniques, production facilities and management and financial skills. Specialised dedicated wholesalers are also gaining support from super- and hypermarkets to help farmers to increase their ability to produce consistency in volume and quality in order to get a better life. However, the study does not differentiate between traditional and specialised dedicated wholesalers. Focussing on the fruit and vegetable category, the results of the regression indicate that by supplying those goods to super- and hypermarkets, wholesalers benefit from the development of super- and hypermarkets in West Java.

Finally, the study concludes that due to the super- and hypermarkets an existing value chain got restructured and upgraded. It had consequences for the local actors in the chain. Small producers

and processors have to upgrade their knowledge and skills, thus they can produce consistency in volume and quality in order to become a reliable source for modern retail. As small producers and processors can meet the requirements of modern retail procurement systems, they can directly supply their products to super- and hypermarkets and get benefits from it.

Other local actors in the chain are wholesalers, in this case traditional wholesalers. As modern retailers modernise their procurement systems, super- and hypermarkets start to use specialised dedicated wholesalers, due to a reason that traditional wholesalers are not efficient. Traditional wholesalers should learn how to satisfy their customers, in this case super- and hypermarkets, by upgrading their working systems in order to become more efficient and sophisticated.

Finally, we found that the governance in these chains is concentrated in the super- and hypermarkets as the lead agent of the development. Generally, the development positively contributes to key actors on the upstream side of value chains and also consumers, although not always the same people have the same experiences. Small producers and traditional retailers do not benefit from the development of super- and hypermarkets.

This study strengthens the concept of (global) value chain and local economic development. Using the case of retail development as a strategy to boost the local economy, the rise of super- and hypermarkets in West Java positively influences the value chain of food retail sector. Some actors in the value chain benefit from the development, and some of them have to upgrade their knowledge and skills in order to get the same benefits. It is hoped that the benefits can increase the performances of producers, processors and wholesalers, who furthermore upgrade their standards of living.

8.4 Contributions of the Study

This thesis is the first one to carry out thorough analysis of consumers, agricultural producers, local food processors, wholesalers and traditional retailers makes producing an integrated analysis of super- and hypermarkets development impacts on the local economy.

The thesis shows that, even though consumers shift their store preferences to super- and hypermarkets, which make traditional retailers, particularly traditional markets experience losses in sales and number of buyers, the development of super- and hypermarkets supports agricultural producers, local food processor and wholesalers gain benefits from being parts of the modern retail value chain.

The theoretical contribution of this study is, that modern retail contributions to the local economy can be measured by analysing the contributions on producers, processors and wholesalers as part of the local economy, despite measuring the contributions on labour, productivity and tax revenues. In particular, this study enriches the literature of retailing by introducing retail practices in developing countries, which have different environmental and cultural challenges. The concept of value chain and the local economy is the key component to be included in the analysis of retail sector contributions in order to provide a comprehensive analysis and understanding.

Findings of this study also have practical contribution. Four practical contributions of this study are:

1) The analysis of the study provides valuable information for retail practitioners, particularly owners and managers of modern retail. The development of their businesses, which usually use the strategy of adding more stores in potential locations, should consider the impacts of the development on their suppliers and also on consumers and traditional retailers. Consumers are provided many choices and conveniences from the development of modern retail, however, consumers are also faced with the environmental impacts due to the development such as pollution and increased traffic congestion. An intense competition, particularly among modern retailers, and increased consumers' attentions on environmental issues are two important factors that need to be considered by modern retailers. Modern retailers need to pay more attention on winning consumers' hearts by providing their needs in a profitable way .
2) The study indicates that modern retailers prefer to source fruit and vegetables from specialised and/or dedicated wholesalers and large commercial farmers, due to the consistency of quality and volume. However, traditional wholesalers are also still used as the source due to the lack of number of both specialised and dedicated wholesaler and large commercial farmers. Both types of wholesalers source from small farmers and create no direct access to the super- and hypermarkets. This fact disadvantages small farmers who usually get only small profits compared to wholesalers. Small farmers have to learn how to overcome their weaknesses in providing consistency in volume and quality, otherwise they do not gain any benefits from the development of super- and hypermarkets. A small farmer does not have enough resources to work alone, thus he/she can work together with other farmers in a group.
3) The analysis of the study shows that traditional markets have experienced the worst impact due to the development of super- and hypermarkets. Traditional retailers are faced with difficult challenges when a supermarket or a hypermarket comes into their areas. Generally, traditional retailers can not compete with super- and hypermarkets due to lack of capital and skills. But, based on findings in the study, traditional retailers, in particular traditional markets, still become a favourite place for consumers to buy fresh goods such as vegetables and meat. Consumers often find that shopping in traditional markets is still enjoyable due to the possibilities of bargaining and having direct communication with the merchants. Traditional retailers should be challenged to change by providing more convenience for their consumers, such as cleanliness, interesting merchandise displays and better services. Some of the traditional markets in West Java are starting to increase their services and build convenient stores or shopping centres by entering a collaboration with private companies.
4) The analysis of the study presents valuable information for the government, both at a local and a national level to pay more attention on the impacts of modern retail development. It is realised that until now, the government still has not found the most effective way to create a win-win solution for modern retailers and traditional retailers as a result of the development of modern retail. The government should not only consider allowing modern retail to open new stores will create more jobs and tax revenue, but also the negative impacts of the development on traditional retailers and the environment.

8.5 Recommendations of the Study

1) Based on findings of the study, this thesis proposes recommendations for scholars, owners/managers of modern retail, traditional retailers, suppliers, and government. The recommendations are:

2) This study enriches previous studies on modern retail, particularly in the food sector. Scholars are encouraged to perform future research, which does not focus only on modern food retail, such as super- and hypermarkets. The phenomenon of shopping centres in developing countries as a retail development strategy to boost the local economy is interesting to be studied. A shopping centre offers a one-stop-shopping concept that combines a super- or hypermarket, a department store, tenants, and facilities such as a food court, a cafe, a restaurant, a children's playground, and a cinema. The existence of shopping centres creates impacts on consumer behaviour, environment and the local economy. Another interesting issue to be studied is the environmental impacts of modern retail. Traffic congestion and pollutions are two main environmental issues of the impacts of modern retail, which influences the quality of people's lives.

3) This study presents valuable findings for the owners/managers of modern retail, regarding the impacts of their stores' development. The development of modern retail has to benefit all actors in the value chain. Usually, the owners/managers more focus on providing the best services to their customers and have a lack of interests in building good relationships with the suppliers, particularly small suppliers. It is realised that small suppliers have a lack of abilities to fulfil the requirements of modern retail procurement systems. Modern retail can provide assistances and facilities to small suppliers by working together with local government, universities, and wholesalers. For example, a hypermarket in Indonesia, working together with the university and a wholesaler provides training for small farmers and small food producers in production and marketing. This study also recommends that owners/managers of modern retail have to consider the environmental impacts of their store development. Providing online buying for consumers can help modern retail to overcome the environmental impacts due to the store development.

4) This study gives recommendations for traditional retailers who experience losses since the entry of modern retail, particularly super- and hypermarkets. Traditional retailers usually do not pay attention on cleanliness and conveniences in their stores. This condition makes consumers have no interests to do their shopping at traditional retailers. Poor merchandise display and product quality also become the weaknesses of traditional retailers. However, based on findings of the study, consumers still prefer to do shopping at traditional retailers, particularly buying vegetables and meat at traditional markets due to the freshness, personal relationships and bargaining opportunity. First of all, traditional retailers have to improve their store environment through providing a clean and convenient environment. Some of traditional markets in Indonesia were renovated through a collaboration between local government and private companies. The new building is convenient and clean with supporting facilities, such

as air conditioning, toilets, and food courts. It is realised that traditional retailers have limited resources, but it does not hinder them to provide an attractive merchandise display in their stores and to give good services for their customers such as delivery services considering that kiosks and convenience stores are located in the residential areas.

5) This study presents a thorough analysis on the impacts of super- and hypermarkets development on their suppliers – agricultural producers, local food processors and wholesalers. Although all suppliers benefit from the development of super- and hypermarkets in West Java, there are some improvements that should be performed, particularly for small farmers and traditional wholesalers. Small farmers face difficulties to meet the trading term of super- and hypermarkets, therefore they cannot sell their products directly to modern retail. It is realised that the intermediaries get bigger benefits than small farmers get. Small farmers cannot work alone to fulfil modern retail requirements, thus, they have to work in a group supported by a wholesaler or even by the modern retail itself. This farmer's group supports their members especially when a farmer has to deal with the modern retail. Another advantage of this group is that they can manage consistency in volume to fulfil the order from super- and hypermarkets by allocating and sharing the production. This group also carries out the role as the communication channel among farmers and between farmers and their customers.

6) Then last but not least, the study presents recommendations for government, particularly local government, considering that local government now has the autonomy to allow the development of the retail sector. Government should pay more attention on the impacts, in particular the negative impacts of modern retail development. The implementation of regulations should be consistent without sacrificing some actors in the value chain of the food retail sector. Government has to realise that benefits from the development of modern retail should be enjoyed by all actors in the value chain, such as suppliers and other retailers. Environmental issues and unethical business practices are a main concern to be considered in relation to the development of modern retail.

Appendices

Appendix A presents three questionnaires used in the study and the figure of the fresh vegetables value chain and alternative marketing channel in Indonesia.

Appendix A.1 | Preliminary Questionnaire of Consumer Research

PRELIMINARY QUESTIONNAIRE

The respondents of this survey are people who make shopping decisions in the household.

1. How often do you buy grocery goods for your household?

a. Never
b. Once a month
c. At least twice a month
d. Once or twice a week
e. More than twice a week

1. In this section, respondent is asked to remember where they prefer to buy each good in the convenience goods category before and after the entry of modern retail.

		Before the Entry of Modern Retail	After the Entry of Modern Retail
Convenience Goods	Fruit and Vegetables	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Other.....	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Mini-Market 4. Supermarket 5. Hypermarket 6. Other.....
	Meat	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Other.....	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Mini-Market 4. Supermarket 5. Hypermarket 6. Other.....
	Fish	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Other.....	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Mini-Market 4. Supermarket 5. Hypermarket 6. Other.....

		Before the Entry of Modern Retail	After the Entry of Modern Retail
Convenience Goods	Rice	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Other.....	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Mini-Market 4. Supermarket 5. Hypermarket 6. Other.....
	Beverages	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Other.....	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Mini-Market 4. Supermarket 5. Hypermarket 6. Other.....
	Bread and Cake	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Other.....	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Mini-Market 4. Supermarket 5. Hypermarket 6. Other.....
	Dairy Products (Milk, Cheese, etc)	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Other.....	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Mini-Market 4. Supermarket 5. Hypermarket 6. Other.....
	Snacks	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Other.....	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Mini-Market 4. Supermarket 5. Hypermarket 6. Other.....
	Toiletries	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Other.....	1. Traditional retailers (kiosk and convenience store) 2. Traditional market 3. Mini-Market 4. Supermarket 5. Hypermarket 6. Other.....

2. How often do you go shopping for convenience goods in each type of retail stores before and after the entry of modern retail?

Notes:

1: Never

2: Once a month

3: At least twice a month

4: Once or twice a week

5: More than twice a week

	Before the Entry of Modern Retail					After the Entry of Modern Retail				
	1	2	3	4	5	1	2	3	4	5
7. Traditional store (kiosk and convenience store)										
8. Traditional market										
9. Mini-Market										
10. Supermarket										
11. Hypermarket										
12. Department store										
13. Other ……..										

3. In this section, the respondent is asked to indicate the importance of each store attribute before and after the entry of modern retail.

Notes:

1 = Very unimportant

2 = Unimportant

3 = Sometimes it's important

4 = Important

5 = Very important

Store Attributes	Before the Entry of Modern Retail					After the Entry of Modern Retail				
	1	2	3	4	5	1	2	3	4	5
Price										
Hospitality of store personnel										
Cleanliness										
Assortment										
Store Operating Hour										
Store atmosphere										
Accesibility										
Security										
Parking facility										
Number of shoppers										
Restaurant/Foodcourt										
Special events, e.g. discount, exhibition, etc.										
Rest area										
Smoking area										
ATM facility										
Store location is in a shopping centre										
Credit facility										
Delivery services										

4. Please give rank to each store attribute from the most important (1) to the most unimportant (18).

Store Attributes	Rank (1-18)
Price	
Hospitality of store personnel	
Cleanliness	
Assortment	
Store Operating Hour	
Store atmosphere	
Accesibility	
Security	
Parking facility	
Number of shoppers	
Restaurant/Foodcourt	
Special events e.g. discount, exhibition, etc.	
Rest area	
Smoking area	
ATM facility	
Store location is in a shopping centre	
Credit facility	
Delivery services	

- Respondent Profile

1. Sex: a.Male b. Female
2. Age (year):
   a. 17 – 25
   b. 26 – 40
   c. 41 – 55
   d. > 55
3. Average monthly income(Rp):
   a. ≤ 1 million
   b. 1 million < i≤ 5 million
   c. 5 million < i≤ 10 million
   d. > 10 million
4. Percentage of monthly income spent on convenience goods:
   a. 0% - 25%
   b. 26% - 50%
   c. 51% - 75%
   d. 76% - 100%
5. Highest education level:
   a. Elementary school
   b. Junior high school
   c. Senior high school
   d. Bachelor
   e. Postgraduate
   f. Other
6. Home address .....

Appendix A.2 | Consumer Shopping Behaviour Questionnaire

Name .....

Home Address .....

Respondents of this survey are:

- Consumers who shop at modern retail stores (mini-/super-/and hypermarkets) in the last six month before the interview.
- Consumers who live in a radius of 3 kms from the nearest traditional retailers and modern retailers.

A. RESPONDENT PROFILE

1. Age (year):
   1. 20 – 30 2. 31 – 40 3. 41 – 50 4. > 50

2. Occupation:
   1. Household mom
   2. Private employee
   3. State employee
   4. Entrepreneur
   5. Other .....

3. Highest education:
   1. Elementary school
   2. Junior high school
   3. Senior high school
   4. Vocational school
   5. Bachelor
   6. Postgraduate

4. Where did you go shopping mostly in the last six month? Mention the name of the store
   Mini-market: .....
   Supermarket: .....
   Hypermarket: .....

5. Grocery goods shopping frequency

Retail	**Shopping Frequency**
Traditional market (pasar)	
Street hawker	
Kiosk	
Mini-market	
Supermaket	
Hypermarket	

6. Shopping time

Shopping Time	Before the entry of modern retail			*After the entry of modern retail*					
	P	W	T	P	W	T	M	S	H
< 10.00 am									
10.00 am - 2.00 pm									
2.01 pm - 7.00 pm									
> 19.00 pm									
Random									

Notes:

P = Traditional Market (Pasar)
W = Kiosk
T = Street hawker
M = Mini-market
S = Supermarket
H = Hypermarket

7. How often do you buy those goods below?

No	***Goods***	***Frequency***		
		Daily	***Weekly***	***Monthly***
1	Meat			
2	Vegetables			
3	Fruit			
4	Fish			
5	Rice			
6	Raw Seasoning			
7	Seasoning			
8	Salt and Sugar			
9	Egg			
10	Butter and Cooking Oil			
11	Milk, Coffee and Tea			
12	Beverages			
13	Snacks			
14	Bread			
15	Cake			
16.	Toiletries			
17	Body treatment			
18	Detergent			
19	Tissue, Sanitary napkin and Diaper			
20	Mineral water			
21	Gas			
22	Confectionaires			
23	Instant noodles			

8. Where do you usually buy goods below before and after the entry of modern retail?

Notes:

P = Traditional Market (Pasar) **M = Mini-market**

W = Kiosk **S = Supermarket**

T = Street hawker **H = Hypermarket**

No	*Goods*	*Before the entry of modern retail*			*After the entry of modern retail*					
		P	*W*	*T*	*P*	*W*	*T*	*M*	*S*	*H*
1	Meat									
2	Vegetables									
3	Fruit									
4	Fish									
5	Rice									
6	Raw Seasoning									
7	Seasoning									
8	Salt and Sugar									
9	Egg									
10	Butter and Cooking Oil									
11	Milk, Coffee and Tea									
12	Beverages									
13	Snacks									
14	Bread									
15	Cake									
16	Toiletries									
17	Body treatment									
18	Detergent									
19	Tissue, Sanitary napkin and Diaper									
20	Mineral water									
21	Gas									
22	Canned foods									
23	Confectionaires									
24	Instant noodles									

9. With whom do you usually go shopping at these places?

	Traditional Market	**Kiosk**	**Street Hawker**	**Mini- Market**	**Supermarket**	**Hypermarket**
Alone						
Maid						
Family						
Other.....						

10. How much do you spend for each time you do shopping at these places?

Expense(Rp)	***Traditional Market***	***Kiosk***	***Street Hawker***	***Mini- Market***	***Supermarket***	***Hypermarket***
≤ Rp 50.000						
51.000–100.000						
101.000–150.000						
151.000–200.000						
201.000–250.000						
251.000–300.000						
301.000–350.000						
351.000–400.000						
401.000–450.000						
> Rp 450.000						

11. The importance of store attributes
    Choose seven most important factors that influence your decision when choosing a shopping place. Give rank from the most important (1) to the least one (7).

Store Attributes	**Rank**
Price	
Assortment	
Hospitality of personnel	
Accessibility	
Store operating hour	
Store atmosphere	
Parking facility	
Discount and other promotions	
Payment method	
Delivery services	

B. Consumers Perceptions

Compare each store attribute of modern retail (mini-, super- and hypermarket) to traditional retail (traditional market, kiosk, and street hawker) based on your perception.

Store Attributes	***Modern retail compares to traditional retail***		
	Worse	***No difference***	***Better***
1. Product assortment			
Variety, and brand provided in the store			
Product quality			
Product availability			
2. Price			
Cheap price			
Flexibility of payment method			
Total spending is more efficient			
3. Place			
The length of store operating hour			
Accessibility of store location			
Security of area around the store			
4 . Promotion			
Frequency of promotion event such as discount			
Facilities to customers who have membership			
Catalogue exposure			
Advertisement frequency			
5. Store atmosphere			
Lighting in the store			
Cleanliness			
Number of people visit the store			
Store ambience (air conditioning, music, etc.)			
Parking facility			
Product display			
Merchandise grouping			
6. *Service mix*			
Queuing			
Hospitality of sales personnel			
Sales personnel product knowledge			
Availabity and willingness to help of sales personnel			
Sales personnel appearance			
Delivery services			
Self-service concept of the store			

C. CONSUMERS PREFERENCES

Preferensi Konsumen	*Modern retail compares to traditional retail*		
	Prefered in the traditional retail	*No difference*	*Preferred in the modern retail*
Information searching			
Shopping place preference			
Choice of shopping place			

Appendix A.3 | **Traditional Retailer Questionnaire**

Respondents of this suvey are:

- Traditional retailers (merchants in traditional markets, merchants who own kiosks located independently, street hawkers) that run their businesses more than five year.
- Traditional retailer's stores are located a in radius of 3 kms from the nearest modern retailers (mini-, super- and hypermarket).

A. Respondent Profiles:

Name of the Owner : …….
Nama of the Store : …….
Address : …….

B. Questions :

1. How long have you been running the business?
   1) 5-10 years
   2) > 10 years
2. What are your store operating hours?
   ……..
3. What kind of products do you offer?
   1) Meat
   2) Vegetables
   3) Fruit
   4) Fish
   5) Rice
   6) Raw seasonings
   7) Seasonings
   8) Salt and Sugar
   9) Eggs
   10) Butter and Cooking oil
   11) Milk, Coffee and Tea
   12) Beverages
   13) Snacks
   14) Bread
   15) Cake
   16) Toiletries
   17) Body treatment
   18) Detergent
   19) Tissue, Sanitary napkin and Diaper
   20) Mineral water
   21) Gas
   22) Canned foods
   23) Confectionaries
   24) Instant noodle
   25) Other ……

4. Since when these modern retail present in your area? (mention the year)

1) Mini-market	
2) Supermarket	
3) Hypermarket	

5. How is your store sales after the entry of each modern retail in your area?

Modern Retail	***(1)Decrease (%)***	***(2)No change***	***(3)Increase (%)***
Mini-market			
Supermarket			
Hypermarket			

6. Is there a change in number of buyer visiting your store after the entry of each modern retail in your area?

Modern Retail	***(1)Decrease (%)***	***(2)No change***	***(3)Increase (%)***
Mini-market			
Supermarket			
Hypermarket			

7. Which goods experienced sales decrease or sales increase after the entry of modern retail?

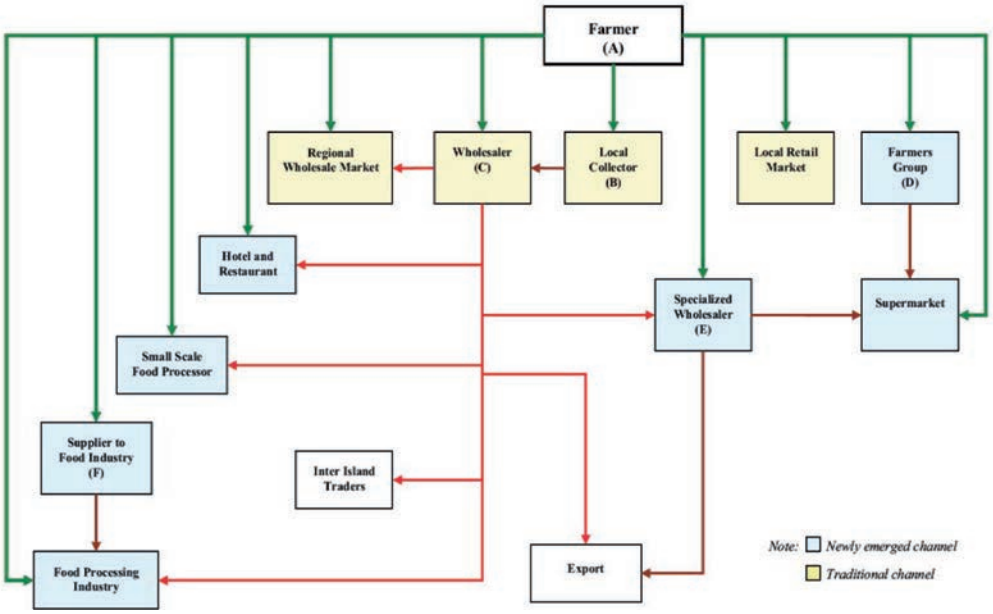
Goods	***(√)***	***(%)***	***Decrease/Increase***
Meat			
Vegetables			
Fruit			
Fish			
Rice			
Raw Seasonings			
Salt and Sugar			
Eggs			
Seasonings			
Butter and Cooking oil			
Milk, Coffee and Tea			
Beverages			
Snacks			
Bread			
Cake			
Toiletries			
Body treatment			
Detergent			
Tissue, Sanitary napkin, Diaper			
Mineral water			
Gas			
Canned foods			
Confectionaries			
Instant noodles			
Other ……			

8. Based on your experience, what is(are) the cause(s) of change in sales and number of buyer of your store after the entry of modern retail?
   1) Intense competition
   2) Increase price of goods
   3) Too many modern retail present in the area
   4) Other ……

9. Did you change your store opening hours after the entry of each modern retail in your area?

Modern Retail	***(1)Yes, mention....***	***(2)No***
Mini-market		
Supermarket		
Hypermarket		

Appendix A.4 | Fresh Vegetable Value Chain and Alternative Marketing Channel in Indonesia



Source: Natawidjaja et al. (2007)

Appendix B presents some pictures related to the study.

Appendix B.1 | Los in a Traditional Market in Bandung, West Java

Appendix B.2 | Kios in a Traditional Market in Bandung, West Java

Appendix B.3 | Street Hawkers in Bandung, West Java

Appendix B.4 | An Organic Farm in Lembang, West Java

Appendix B.5 | An Organic Farm in Parung, West Java

Appendix B.6 | Vegetable Farm Owned by Farmers' Groups in Lembang, West Java

Appendix B.7 | Product Sorting in a Wholesaler's Warehouse in Lembang, West Java

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