

# Contents

<b>1</b>	<b>Introduction.....</b>	<b>1</b>
1.1	Background .....	1
1.2	Problem specification .....	2
1.3	Purpose.....	3
1.4	Research Questions .....	3
1.5	Delimitation .....	3
1.6	Disposition .....	3
<b>2</b>	<b>Frame of reference .....</b>	<b>6</b>
2.1	Category management definition.....	6
2.2	Category management process .....	6
2.2.1	Category definition .....	7
2.2.2	Category role .....	8
2.2.3	Category Assessment.....	9
2.2.4	Category Performance Measures .....	11
2.2.5	Category strategies.....	11
2.2.6	Category Tactics.....	14
2.2.7	Plan Implementation .....	15
2.2.8	Category Review .....	16
2.3	Demand side .....	16
2.3.1	Demand management .....	16
2.3.2	Customer focus.....	17
2.3.3	Category management collaboration .....	18
2.3.4	Strategic retailing positioning.....	18
2.4	Benefits.....	18
2.5	Summary.....	20
2.6	Working Model.....	21
2.6.1	Reason .....	21
2.6.2	Explanation .....	22
<b>3</b>	<b>Methodology.....</b>	<b>24</b>
3.1	Research approach .....	24
3.1.1	Research types: quantitative research vs. qualitative research .....	24
3.1.2	Reasons to choose qualitative approach .....	25
3.2	Research Strategy: Case study.....	25
3.2.1	Definition .....	25
3.2.2	Reasons to choose .....	25
3.2.3	Types of case study research: explanatory and exploratory .....	26
3.2.4	Case selection .....	27
3.2.5	Research strategy .....	27
3.3	Data collection .....	27
3.3.1	Primary data and its collection .....	27
3.3.2	Secondary data and its collection.....	30

3.4	Literature study .....	31
3.5	Data analysis .....	31
3.6	Reliability and validity .....	32
3.6.1	Reliability .....	32
3.6.2	Validity .....	32
4	<b>Empirical Findings and Analysis .....</b>	<b>34</b>
4.1	Case description .....	34
4.1.1	Introduction of Lianhua supermarket.....	34
4.1.2	Category management in Lianhua supermarket .....	34
4.2	Application of working model .....	36
4.2.1	Phase 1: Strategy and positioning .....	36
4.2.2	Phase 2: Develop category plans .....	38
4.2.3	Phase 3: Plan implementation.....	52
4.2.4	Phase 4: Category review .....	53
4.2.5	Category management collaboration .....	53
4.2.6	Customer focus.....	54
4.3	Barriers and challenges .....	55
4.4	Suggestions .....	56
5	<b>Conclusion .....</b>	<b>59</b>
6	<b>Discussion.....</b>	<b>61</b>
6.1	Theoretical implication .....	61
6.2	Managerial implication .....	62
6.3	Possible future research .....	62
	<b>References .....</b>	<b>63</b>
	<b>Appendix .....</b>	<b>70</b>

## Tables

Table 2-1	Strategies implied by category roles .....	13
Table 2-2	Various category roles .....	15
Table 2-3	Customer insights in category management process .....	17
Table 2-4	Difference between supermarket with and without category management.....	21
Table 3-1	Difference between qualitative and quantitative approach.....	24
Table 3-2	Interviews summary .....	29
Table 4-1	Categories in Lianhua supermarket No. X .....	38
Table 4-2	Part of category structure in Lianhua supermarket No. X .....	39
Table 4-3	Category role of the 6 selected categories in Lianhua supermarket No. X .....	40
Table 4-4	Customer assessment in Lianhua supermarket No. X. ....	42

Table 4-5 Supplier assessment .....	44
Table 4-6 Category performance measures in Lianhua supermarket No. X.....	45
Table 4-7 Selection of drinks' strategies in Lianhua supermarket No. X.....	46
Table 4-8 Pricing tactics in Lianhua supermarket No. X.....	47
Table 4-9 Promotion tactics in Lianhua supermarket No. X.....	48

## Figures

Figure 1-1 Outline of the research. ....	4
Figure 2-1 Category Management 8-step cycle.....	7
Figure 2-2 Category Assessment: Data Elements.....	10
Figure 2-3 Working model based on frame of reference.....	22
Figure 3-1 Interactive model of data analysis.....	32
Figure 4-1 Organization structure in Lianhua supermarket. ....	35
Figure 4-2 Customer demographic in the Lianhua supermarket No. X.....	37
Figure 4-3 Positioning strategy of Lianhua supermarket No. X.....	38
Figure 4-4 Customers' purchasing channels of drinks in Shanghai (Year: X). ....	42
Figure 4-5 Sub-categories sales of drinks in Lianhua supermarket No. X. ....	43
Figure 4-6 Comparison between the share of carbonated beverages and fruit and vegetable drinks in Lianhua supermarket No. X and the share of them in the whole Shanghai market. ....	43
Figure 4-7 Market growth and market share matrix. ....	44
Figure 4-8 80%-20% rule.....	47
Figure 4-9 Awareness and attractiveness of biscuit promotions in Lianhua supermarket. ....	48
Figure 4-10 The process of making product configuration table.....	50
Figure 4-11 The process of implementation and adjustment of product configuration table. ....	51
Figure 4-12 Relationship changes in Lianhua supermarket. ....	53
Figure 6-1 Modified working model based on findings. ....	61

# 1 Introduction

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*In this chapter, authors first give a general background of Chinese supermarket retailing and the development of category management in China, and then authors specify the existing problems regarding to the research subject. Then purpose of the research is presented, which is followed by research questions. In the end, the chapter provides an outline of the research.*

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## 1.1 Background

In the recent 20 years, due to the rapid economic development and the improvement of the people's living standard in China, Chinese customers' needs have been higher and higher. Meanwhile, the Chinese supermarket retailing is situated in a fierce competitive surrounding: (1) Compete with foreign supermarkets with advanced technologies. Since 2004, foreign supermarket retailers can have wholly owned operations without any previous requirement in China, so a great number of foreign retail enterprises swarming into Chinese market and vying retail market share with Chinese retailers (Sun & Ma, 2009). Due to the efficient supply chain operations of foreign supermarket chain retailers, the Chinese market for them has kept increasing. For example, the three western supermarket chains, Carrefour, Wal-Mart and Metro, have almost 100 stores in Chinese major cities such as Shanghai, Beijing and Guangzhou by 2004 (Kinsey & Xue, 2005). Only within 3 years, Wal-Mart itself has soared its store numbers to 102 in China (PMR Publication, 2008). (2) Thin profit margins due to the coexistence of diverse retailing formats. Unlike the traditional one format of department store, the main Chinese retailing trading formats at present are these: department stores, hypermarkets, supermarkets, convenience stores, traditional markets, franchised-operation stores, E-business, etc (Wang, Chen & Chu, 2009). Supermarkets are struggling to gain their profit margins with the other retailing formats in China. Comparing to supermarkets, hypermarkets have bigger assortment, lower price and more volume. Besides, most of hypermarkets in China are offering their customers free daily shuttle bus to take to their stores, which makes it quite convenient for the customers who live far away to do shopping there. Speaking to wet markets or convenience stores, Chinese customers prefer to go there if they want to chat or bargain with the fruit or vegetable sellers in the wet market or if they just want to buy a few items in the convenience store (Child, 2006). As above, the profit margins are quite thin for supermarkets and supermarkets are situated in a dilemma in China. (3) Lack of advanced retail chain management. Due to the immature of retail chain management in China, Chinese retailers are inefficiency regards to logistics comparing to foreign retailers (Wang, Li & Liu, 2008). Unlike the previous problems of Chinese supermarket retailing which is poor technology transfer and support from supplementary industries, the problems these days are mainly about the ineffective and inefficient supply chain management issues (Lo, Lau & Lin, 2001). Weber and Kantamneni (2002) suggest it is especially necessary for supermarket to apply advanced supply chain management and technologies in order to keep competitive in a highly dynamic environment. Situated in

the fierce competition and faced by the intense pressure, it is imperative for Chinese supermarket retailers to find out how to increase their survivability and strength their role in Chinese retail market.

Market tendency is guided by customer demand, though it is hard to grasp. Retailers can win the market by focusing on customer demands to enlarge their market and improve their sales. Previously, it was the manufacturers who dominated production flow such as decide what to sale, where, when and how many, which was disconnected with the demand of end customers' side and lost benefits along the supply chain (Coyle, Bardi, & Langley, 2003). In today's furious competition, retailers have to pay more attention to the demand side. As such, competitive advantages are gained by customizing companies' logistics operations and pulling one link to the next throughout the supply chain based on customers' demand. Category management is just from customer demand point of view to improve the retailers' business operations. Category management, as a customer-centric strategy, treats categories as a strategic business unit to customize categories on a store-by-store basis and satisfy customer needs (Nielsen Marketing Research, 1992). In 1998, Chinese chain store and franchise association has introduced the concept of category management into China and held the first seminar of category management. In 2003, the association conducted training for category management in the main cities in China and tried to facilitate the implementation of category management in Chinese retailing. Until now, the Chinese supermarkets which have implemented category management are only among some leading supermarket retailers, such as Lianhua supermarket, Hua Run Wan Jia, Hua Pu supermarket, etc. Considering the competitive situation for Chinese supermarkets, category management can be the most appropriate method for Chinese supermarket retailers to keep developing and competitive in Chinese retailing.

## **1.2 Problem specification**

Due to the intense competition caused by foreign-funded retail enterprises with advanced supply chain management and the diverse coexistence of retailing formats developed in China recently, Chinese supermarket retailers find it more and more difficult to stay strong in the Chinese retailing. Since supermarket retailing is an industry that connects the people's daily life very tightly, the competitive advantages for Chinese supermarket retail operators is trying to attempt customers' demand. Dolan and Humphrey (2004) suggest customer specific needs' processing is quite vital due to the gradually increasing product variety for supermarkets. Chinese supermarket retailers can take advantage of being familiar with Chinese culture and tradition to attract customers and compete with foreign-funded retail giants. Besides, by understanding customer needs, supermarket retailers know how to position itself and make customers choose them instead of other retailing-formats stores. However, how to keep supermarket retailers to the customer demand and find a right management to fit in with its store's strategies or store's concept is hard to do.

Category management which factors the demand element into the supply chain (Gruen & Shah, 2000) is both a customer-centric technique and a strategic business unit applied to retailer's individual strategy or store concept (ACNielsen, 2006). A lot of researches on category management can be found, but the research of category management in Chinese supermarket retailing is quite few. Due to that motivation, we want to fill in the gap and conduct a research by a case study in Chinese Lianhua supermarket. We try to identify how category management is implemented by Lianhua supermarket in Chinese retailing, find what kinds of barriers and challenges exist during the implementation and suggest solutions to them.

### **1.3 Purpose**

The purpose of the research is to study how category management is implemented by Chinese Lianhua supermarket.

### **1.4 Research Questions**

Based on the above purpose, we specify our research questions as follows:

- How is category management implemented by Lianhua supermarket?
- Are there any barriers and challenges when Lianhua supermarket is implementing category management?
- What are the suggestions to those barriers and challenges?

### **1.5 Delimitation**

- This research only restricts insights of category management on single case and specific geographical location. As for whether the research is also applied to other industry, the researched hasn't been concerned and needs further research.
- The case study in the research is conducted only from retailer's point of view. Findings obtained from the interviews are mostly from Lianhua supermarket side. The inadequate interview from supplier side is a clear limitation of the study, but it leaves an interest for future research.

### **1.6 Disposition**

In this section, an overview of the research structure is presented. Here, readers can find a chart-formed outline, which includes all the chapters of the research. Please see the following figure:

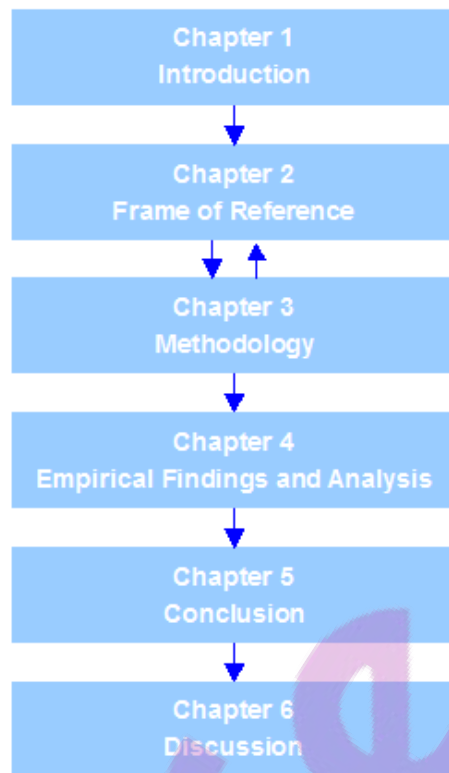


Figure 1-1 Outline of the research.

Chapter 1 – In this chapter, authors first give a general background of Chinese supermarket retailing and the development of category management in China, and then authors specify the existing problems regarding to the research subject. Then purpose of the research is presented, which is followed by research questions. In the end, the chapter provides an outline of the research.

Chapter 2 – This chapter provides frame of references from different dimensions, where theories and reference which will be applied in analysis in chapter 4. The way of conducting all the literature study in this chapter is explained in chapter 3.

Chapter 3 – This chapter is a science of studying of how research is done scientifically, which is closely connected to the research conduction process in chapter 2 and chapter 4. It comprises a various sequence of steps: selecting a research approach, designing case strategy as a case study, collecting data, evaluating the validity and reliability of the research instrument and pointing out the limitation of the research.

Chapter 4 – Within this chapter, the empirical findings are presented as case description on a low level of abstraction at first, and then the subsequent analysis is conducted on a higher level of ab-

straction. The analysis links to the established theory by applying working model created in chapter 2, and it is also a systematic approach based on methodology in chapter 3 to systematically compare between theory and empirical facts.

Chapter 5 –This summary section mirrors each research questions concisely.

Chapter 6 - In this section, authors present the theoretical and managerial implications of the study. The further research is recommended later.



## 2 Frame of reference

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*This chapter provides frame of references from different dimensions, where theories and reference will be applied in analysis in chapter 4. The way of conducting all the literature study in this chapter is explained in chapter 3.*

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### 2.1 Category management definition

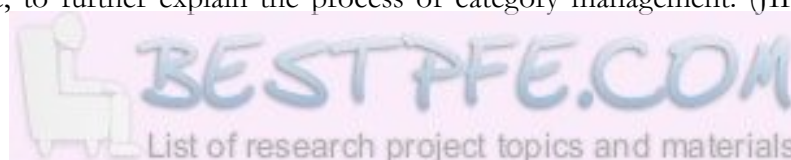
The concept of category management was initially introduced at the beginning of 1990s as part of Efficient Consumer Response (Larson, 2005). It started with a strategic change of the management emphasis from the manufacturer's side to the retailer's categories (Dupre & Gruen, 2004). At the beginning, category management was regarded as a strategy mainly applied to grocery sector, or limited to food categories (Dewsnap & Hart, 2004). However, over the past 20 years' development, it is beyond the bounds of food retail and it has been developed into a prevailing strategy for retailers in many business areas (Steiner, 2001).

Gruen and Shah (2000) explain category management is designed to help retailers know how to mix products appropriately. Dupre and Gruen (2004) add that category management should be regarded as a joint procedure during which both retailers and suppliers handle product categories in order to increase customer value. Meanwhile, category management is a continual, long-running business philosophy which must strategically meet the changes of customers' needs and simultaneously assure the retailer's profit (Kotzab & Bjeere, 2005).

Above all, we conclude that category management focuses on 3 key points: (1) both customer-centric and sales profitable; (2) managing the category as a strategic business unit, grouping products together and identifying how products are consumed or purchased; (3) a joint process between suppliers and retailers based on their mutual trust and cooperation.

### 2.2 Category management process

The process of category management consists of three phases, namely analysis, implementation and forecasting (Kotzab & Bjerre, 2005). Analysis refers to analyze the collected information regarding to customers, category development, and the retailer's performance in the category. Implementation means to carry out the analysis above in order to enhance customer satisfaction, increase sales and decrease costs. Forecasting represents the expectation of how categories can be developed and how customers' needs can be determined in the future. Here, to make it more clearly and more detailed, The Partnering Group has developed a model, namely category management 8-step cycle, to further explain the process of category management. (JIPECR, 1995)



(See Figure 2-1). The process is created based on the combination of category objectives, competitive environment and customer behavior.

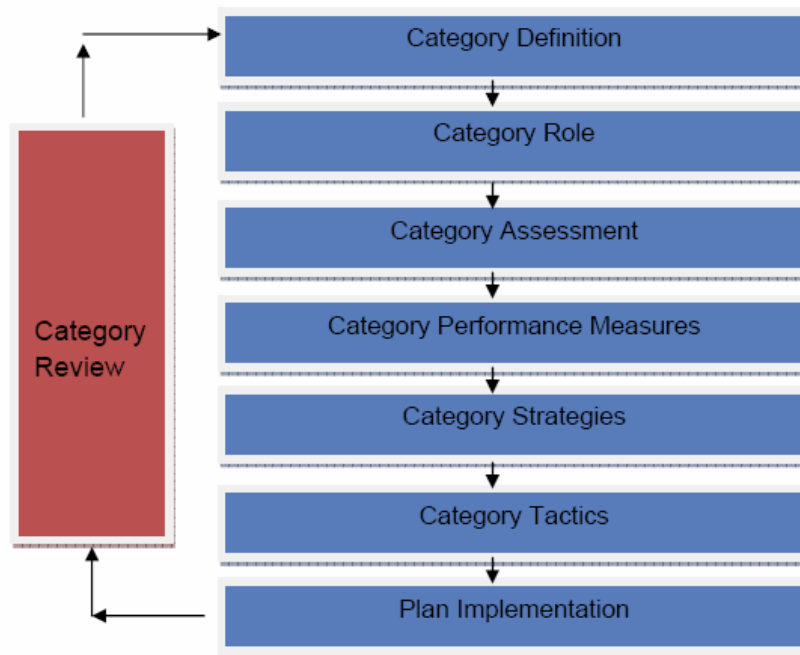


Figure 2-1 Category Management 8-step cycle.

Source: Joint Industry Project on Efficient Consumer Response (JIPECR), (1995).

### 2.2.1 Category definition

Category definition, as the first step of the process, is to determine the products which comprise the category based on customers' perception and meanwhile develop the customer decision tree (ACNielsen, 2006; Kotzab & Bjerre, 2005). Category definition needs retailers to create the structure of the category which includes all unique identifiers of each distinct product and service that can be purchased, i.e. stock-keeping unit. The structure will be later utilized to guide all other analysis in the category plan. Category can be defined either wide or narrow, but the products in the category must be replaceable or inter-related (Basuroy, Mantrala, & Walters, 2001). Besides, category definition must be based on the targeted customers' needs or marketing objectives, as it presents the level of importance to the customers for retailers. IGD (1999) suggests retailers need to focus on the development of new products which is targeted to the customers' needs. Let us take some examples to explain it: textiles, kids' products and lightening products. A wide category definition based on the above products are window textiles, kids' care and lamps accordingly, while a narrow category definition based on the above products are curtains, kids' safety products and wall lamps accordingly. It should be noticed that the category should be defined carefully according to the customers' shopping behavior and the retailers' various objectives (Demeulenaere, Wither, Weber, Joannic & Turner, 2000), which have great influence on category.

### **2.2.2 Category role**

Category role means to define the role and the function of the category concerning the store concept and the retailer's targeted customers (Kotzab & Bjerre, 2005). It determines each category's importance accordingly in the retailer's portfolio of categories. As not all categories are of same importance to retailers, the approach to deal with different category roles can be differ from one retail store concept to another (Kotzab & Bjeere, 2005). Thus, it is apparently necessary for retailers to determine which category is playing which role. Johnson (1999) suggests the step of category role compels retailers to think what they want out of a specific category. Dhara, Hochb and Kumarc (2001) have also mentioned as the category role which the product plays in the daily life can result in huge differences of customers' behavior and motivations, retailers are required to clearly identify across categories systemically. Thus, they can effectively assign the rare marketing resources and get more sales.

Generally, there are four strategic roles of categories, namely destination, routine, seasonal and convenience (Holmström, 1997).

- **Destination**

A destination category, as the competitive advantage, helps retailers to be the store of choice for the target customers by offering continual and superior value (ACNielsen, Karolefski. & Heller, 2006). Different retailers may have various destination categories according to their targeted customers (Dupre & Gruen., 2004). Besides, as destination category tends to have relatively high sales, good inventory turnover and differentiation of advantage from other retailers in customers' opinion comparing to others (Blattberg, 1995), it is very vital for retailers to focus on customers' view point (Holmström, 1997). In other words, destination category has a strong connection with the customers (e.g. notebooks or stationeries for students). Therefore, the destination role of category is generally assigned a higher share of resources than an average one (Singh & Partner, 2000).

- **Routine**

A routine category aims to attract customers into the store by offering continual and competitive products which meet customers' routine stock-up demand (e.g. toothpaste, toilet soap and so on). Normally, retailers give the resources which equal to the average share to routine categories (Singh & Partner, 2000).

- **Seasonal or occasional**

A seasonal category which implies high seasonality is the one that is bought infrequently or obey cyclical way. In specific time of the year, seasonal categories are the products which customers

expect to have (Holmström, 1997) and some of them can be turned into destination categories. For example, Chinese moon cakes can become destination category for customers to purchase during Chinese Lantern Festival.

- Convenience

A convenience category is the one that customers think more convenient to pick up at a neighborhood retailer than another retailer which provides cheaper price. Factors such as product availability, pack size, reputation (purchase for someone else) are convenience access which bring customers in store (Rowley, 2005). Convenience categories focus on customers' unplanned "fill-in" demands, which play a strategic role to retailers to make itself a one-stop-shopping place. Basically, a convenience category is assigned below average resources, and its contribution to the shop of choice for the targeted customers is convenience or one stop experience (Singh & Partner, 2000).

### **2.2.3 Category Assessment**

This step includes gathering and organizing data, analyzing historical data and concerning information, understanding the category performance and identifying the greatest opportunity of sales, profit and return on assets (Basuroy et al., 2001; Singh & Partner, 2000). The four types of historical data are normally used as follows (Moulton & Lapsley, 2001): consumer data, market data, retailer data and supplier data. The outcome is to determine the biggest opportunities in the current category in the area of turnover, profit and return on assets. The category assessment is a documented process based on charts and graphs. It may be hardest part of the category management, but a complete assessment is crucial for the development of following steps such as category strategies and tactics according to ECR Europe Category Management Best Practice Report. Besides, the implementation of the assessment is dependent on the cooperative work between suppliers and retailers, because no single organization can have all the data or insights to carry out the assessment alone effectively (Moulton & Lapsley, 2001).

Below is the further explanation of the four data elements (See Figure 2-2):

- Consumer data

Consumer data helps retailers understand customers' purchase behavior. Desrochersa and Nelson (2006) suggest adding consumer behavior insight to category management is a vital in assessment, as some important questions which need answering represent the consumption trends of the category: what needs or wants are satisfied by the category? What are the demographic and lifestyle characteristics of the most users? When do the purchases happen? Is there any seasonality? What is the share of various channels such as discount stores, grocery stores, convenience stores, etc? How much of the category is sold on promotions (Singh & Partner, 2000)?

- **Market data**

Market data assessment aims to figure out the current market share for the category gained by retailers and competitors in the market, to find the sales and consumption tendency of the category and the market share opportunity gaps in the category (Moulton & Lapsley, 2001): what are the sales and share trends of the category in the market? What is the retailer's market share for the category? How are the retailer's marketing activities such as pricing, shelf presentation, assortment and promotion going compared to its competitors (Moulton & Lapsley, 2001)?

- **Retailer data**

Retailer data mainly comprises retailer's sales (e.g. point-of-sale data) and retailer's space allocation (e.g. Plano-gram data which illustrates how and where retail products should be displayed in order to increase customer purchases) (Singh & Partner, 2000). Questions in terms of sales, profits and inventory turns of the categories should be investigated for retailer assessment by retailers and suppliers.

- **Supplier data**

Supplier data represents the current performance of suppliers in the category. It is guided by the category suppliers market share (e.g. leverage, no competing, single source), the efficient degree of the category's suppliers, the replenishment performance of category's suppliers, the dependency between the category's suppliers and retailers and so on.

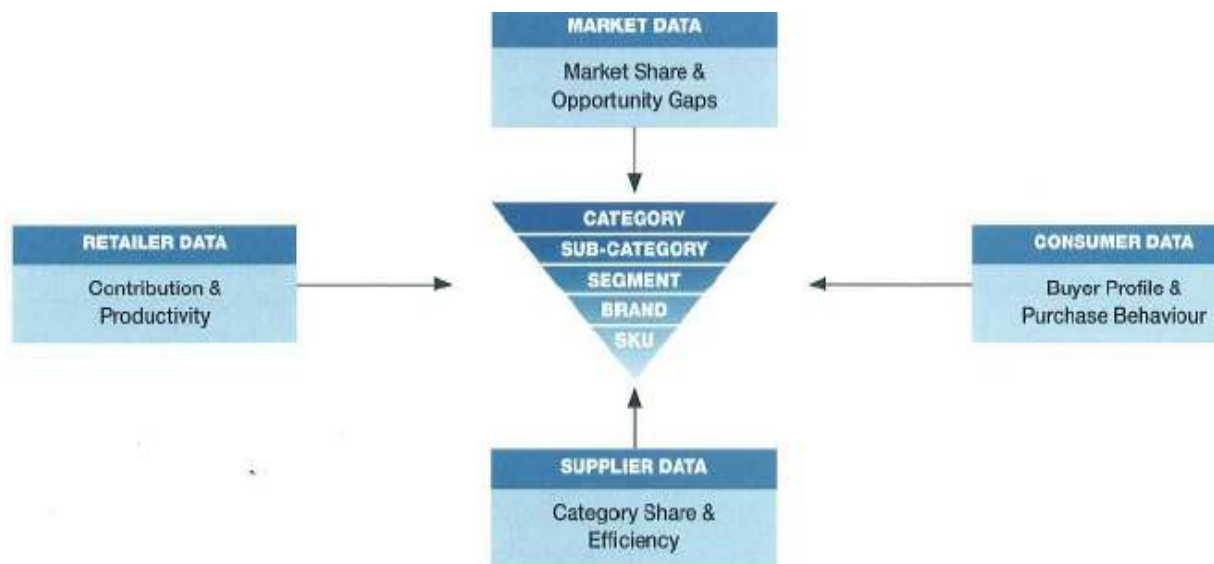


Figure 2-2 Category Assessment: Data Elements.

Source: ECR Europe Category Management Best Practices Report, (1997).

After the information concerning consumer data, market data, retailer data and suppliers data have been assessed, then it comes to the opportunity gap analysis based on those above information. Opportunity gap analysis is to find if there is a discrepancy between the current perform-

ance and the average performance level of a category (Moulton & Lapsley, 2001). For example, if the retailer has 10% of market share in soft drink category and the demands of market share in soft drink category is 19%, so the opportunity gap is 9%, which can be get closed through the implementation of the following strategies and tactics.

#### **2.2.4 Category Performance Measures**

This step is to create appropriate category measures to evaluate plan's execution, such as market shares, turnover, gross profitability, gross margin return on assets, consumer loyalty and satisfaction and so on (Basuroy et al., 2001). The goal of category performance is to establish performance targets and baseline for the whole category plan in order to keep in line with the category role, namely to achieve the opportunity gap (Singh & Partner, 2000).

#### **2.2.5 Category strategies**

- Category marketing strategies

Category marketing strategies can be divided into two parts: supply chain strategies and demand chain strategies. The supply chain strategies emphasize supply chain flow and transaction costs. And the demand chain strategies are what we are focusing on and further talking about. Generally speaking, the demand chain strategies include traffic building, transaction building, profit contribution, cash generation, excitement creating, image enhancing and turf defending (Radhakrishnan, 2002). Those strategies are targeted to each category segment and measure the potential for the possible business development.

Traffic building strategy aims to draw customer traffic to the store and into the aisle, and traffic builder are products with high share, high price awareness, high household penetration and frequent purchase (Basuroy et al., 2001). In retailing, the concept of "build it and they will come" is doomed to fail. Supermarket retailers need to create traffic by generating numerous selling opportunities for the customers.

Transaction building strategy emphasizes on increasing the average transaction size in the category or total store transaction (ECR Best Practices Operating Committee, 1997). For example, as one of the data mining work, loyalty cards which have been used in many chain stores capture the major customers' needs through retail transaction data (Cumby, Fano, Ghani & Krema, 2005). Thus, retailers can build transaction associated with customers and gain profit.

Profit contribution strategy emphasizes on using parts of the category to create profits (ECR Best Practices Operating Committee, 1997). This strategy is to generate higher profit margins of the products which are not easily affected by price fluctuations and have great customer loyalty.

Cash generation strategy emphasizes on using parts of the category to create cash flow for the retailers (ECR Best Practices Operating Committee, 1997). Gruca and Rego (2005) have found that increasing cash flow growth can lead to customer satisfaction. Products of this category are rapid turning, namely with an efficient supply rate and low inventory turnover.

Excitement creating strategy means to give customers a feeling of urgency or opportunity (ECR Best Practices Operating Committee, 1997). Actually, a lot of researches have illustrated that feelings of fun and excitement can be elicited during in-store shopping experience (Babin, Darden & Griffin, 1994; Wakefield & Baker, 1998). And many supermarkets have made a lot of trails in creating excitement in retailing. For example, eating moon-cakes in the Mid-autumn Festival is a tradition in China, so the fact that supermarket retailers sell abundant of moon-cakes in the Mid-autumn Festival is an excitement creating strategy. Or, some Chinese supermarket retailers sell warm skewer in winter, and its nice smell can always attract customers to buy. This is just the “smelly” approach that adds customers’ excitement to the category.

Image enhancing strategy is used in a category which reinforces the retailer’s desired image to the customers. Basically, store images include merchandizing, store atmosphere, in-store service, accessibility, reputation, promotion, facilities and post-transaction, which link the customers’ decision outcome (Thang & Tan, 2003). Wright, Newman and Dennis (2006) suggest desirable images and atmosphere that retailers create can have an effect on customers’ positive emotions and shopping behaviors. For example, Carrefour once implemented a price rollback campaign and launched a frequent shopper program called Ticket Cash that permits customers to receive discounts on the 250 items to improve its price image. Tesco improved its efficiency of scanning operation to gain better quality images.

Turf defending strategy is to protect the retailer’s business of certain category against its competitors by positioning store’s certain parts of a category aggressively (ECR Best Practices Operating Committee, 1997). For example, supermarkets have stopped using milk as a loss leader to attract customers because nowadays even the corner gas station carries dairy products. Instead, most supermarkets avoid a one-size-fits-all strategy and support offerings tailored to the neighborhood. Generally, supermarkets are working to defend their turf in the area of value, convenience, services and so on recently.

It is vital for retailers and suppliers to decide which right strategies of each category to choose during the category management process, as the choice of those strategies will first be applied to specific components of the category and later assist to choose the concerning tactics to conduct those strategies. ACNielsen (2006) suggests that choosing the proper strategies should suit every category roles and meet category performance measures.

- Category roles and category strategies

Category strategies must be suitable for and be connected to category roles. For example, as for an occasional or seasonal category, retailers' goal of it is to achieve above market fair share at peak consumption seasons. Thus, traffic building, excitement creation and profit generation are appropriate strategies for retailers to adopt, as frequent purchase and high percentage of sales can be gained by traffic building strategy, lifestyle-orientated sales can be achieved by excitement creation strategy and higher stock turns and higher gross margins can be acquired by profit generation strategy during peak seasons. However, turf defending strategy has little profitability effect in an occasional or seasonal category for retailers, as an occasional or seasonal category has its seasonality and there is no traditional or previous customer base for retailers to draw or establish. Table 2-1 illustrates the category role with its implied category marketing strategies.

Table 2-1 Strategies implied by category roles

Category Role	Implied Category Marketing Strategies
Destination	Traffic Building Turf defending Transaction Building Excitement Creation
Preferred /Routine	Transaction Building Profit Generating
Occasional/ Seasonal	Traffic Building Excitement Creation Profit Generating
Convenience	Transaction Building Profit generating Image Enhancing

Source: ECR Europe Category Management Best Practices Report, (1997).

- Category performance measures and category strategies

Strategies must be based on category performance measures and targets. For example, market share growth and turnover increase can measure the performance of turf defending and traffic building, gross profit improvement can measure the performance of transaction building and profit generating, return on assets increase can evaluate the performance of cash generating and customer satisfaction improvement can check the performance of excitement creation and image enhancing. (ECR Best Practices Operating Committee, 1997).



### 2.2.6 Category Tactics

After the category strategies have been selected, the next step is to decide more detailed tactics for each category. Generally speaking, tactics of demand side include assortment, pricing, shelf space management and promotion (ACNielsen, 2006).

- Assortment

Many scholars suggest retail assortments significantly affect the choice of store to the customers (Bhatnagar & Ratchford, 2004; Chang & Burke, 2007; Mantrala, Levy, Kahn, Fox, Gaidarev, Dankworth and Shah, 2009). Fowler and Goh (2009) explain that assortment describes the amount of different items in a merchandise category. Mantrala, et al. (2009) add category assortment requires retailers to cater various customer demands by offering variety (number of categories), depth (number of SKUs within a category). Generally, assortment tactical choices include decreasing the number of SKUs in the category; increasing the number of SKUs in the category; changing the number of SKUs by swapping existing SKUs with new SKUs; developing, stopping or increasing private label representation within the category; maintaining the current assortment and so on (ECR Best Practices Operating Committee, 1997).

- Pricing

It is no wonder that pricing is often used as a competitive category tactic in supermarket retailing. Pricing tactic is to develop price changes for the category based on the current prices (Basuroy et al., 2001). The two common pricing policies are EDLP (Everyday Low Price), Hi-Lo (High-Low Pricing). EDLP refers that retailers provide customers with relatively stable price among a large amount of products (Ellickson & Misra, 2007). It is usually contributed to the cost savings on restoring credibility to retail pricing from the demand side (Ortmeyer, Quelch, and Salmon, 1991). Besides, EDLP aims to cater to the customers with greater service needs, namely one-stop shopping (Lal & Rao, 1997). Hi-Lo, on the other hand, offers customers steep temporary price reduction on some specific products (Ellickson & Misra, 2007), e.g. providing coupon clipping, offering discount promotions. It usually appeals to the cherry pickers who have much time to spend and shop around (Clark, 2006). In reality, many supermarkets compete in a given market by coordinating EDLP and Hi-Lo (Ellickson & Misra, 2007).

- Shelf space management

Shelf space management is another important element to appeal to more customers in category tactics. It has its critical effect on sales increase and positive impact on product performance (Lim, Rodrigues & Zhang, 2004). The key points of shelf space management are: (1) how much space should be allocated to each brand of items; (2) where the brand should be located on the shelf (Hwang, Choi, Lee, 2009); on-shelf service levels such as the minimum days of supply and case pack-out (ECR Best Practices Operating Committee, 1997). Shelf space management should re-

flect category role and category strategies, e.g. best location is for destination category; high profile location and competitive space allocation for traffic building strategies.

### ● Promotion

Promotion tactic is to develop the promotional plan which contains promotion frequency and recommended price points (Basuroy et al., 2001). It is quite common now that most of super-market managers spend considerable time deciding what items to advertise per week and at what levels to promote in order to increase sales volume and profitability. Customization is regarded as the key point to achieve the effectiveness of promotions. Generally, the promotion tactical choices include price reduction, coupons, advertising, theme, display, sampling, special product packs, etc (ECR Best Practices Operating Committee, 1997).

The implementation of above tactics should be in line with the category roles. Table 2-2 illustrates each category role with its implied category tactics.

Table 2-2 Various category roles

	<b>Assortment</b>	<b>Price</b>	<b>Promotion</b>	<b>Shelf-space</b>
<b>Destination</b>	Total variety Best in category	Leadership	High frequency	Best location Much space Much traffic
<b>Seasonal/Occasional</b>	Timely variety	Seasonally competitive	Seasonally	Good location Middle space Much traffic
<b>Routine</b>	Narrow	Higher	Low frequency	Excess space
<b>Convenience</b>	Selection	High	None	Excess space

Source: Kotzab and Bjerre, (2005).

## 2.2.7 Plan Implementation

This is the step where the action actually occurs. Category business plan and strategies will be implemented through the store level implementation of the tactics (Singh & Partner, 2000). The main elements of plan implementation include: approval process, assigning responsibilities and scheduling (ECR Best Practices Operating Committee. 1997). Approval process refers that all partners along the chain should approve to carry out category business plans and share resources with each other. Assigning responsibilities means to assign each tactical action in the plan to individuals to perform. For example, a category manager is assigned to decide what products for discounts the coming week in order to conduct promotion tactic. Last element is scheduling implementation which shows the timing for each assigned tactical tasks (ECR Best Practices Operating Committee. 1997).

### **2.2.8 Category Review**

As the last step, category review is to monitor, evaluate and modify the overall category's progress (ACNielsen, 2006). Review should be conducted at intervals and noted on the implementation plan (Basuroy et al., 2001).

## **2.3 Demand side**

One of the major characteristics of category management is to focus on demand side. Von der Heydt (1999) suggests demand-driven strategies use category management to decide which products should be put on the retailer's shelves in the end. Kotzab and Bjerre (2005) suggest demand management is actually that the retailer and supplier manage a product category, which is regarded as an independent business unit emphasizing fulfilling. Dupre and Gruen (2004) also point out those continuous competitive advantages for the chain partners are gained through demand side strategies, mainly category management. As such, we need to learn what demand-driven management is first, and then to elaborate how demand side is like in category management later.

### **2.3.1 Demand management**

Though demand management is a relatively new concept, many scholars have already explained it in many ways in the literature. Heikkilä (2002) points out that against focusing on the supplier or manufacturer and working forward, demand management is starting with customers and put their needs at first. The first point of demand-driven supply chain is the customer (Armstrong et al., 1996). Corsten and Kumar (2005) suggest demand-side management facilitates customer demand by promoting joint marketing and sales activities, which is regarded as a collaborative practice. Hilletoft, Ericsson and Christopher (2009) argue the goal of demand management is to combine the demand creation and the demand fulfillment process to gain core or competitive advantages which differentiate others. As above, we conclude that the essence of demand management is (1) a pulling strategy based on customers' side, (2) it collaborates the flows of product, services, information and revenue throughout the supply chain, from manufacturer, distribution network, retail store to customer household, (3) and it aims to create its strategic core competence by demand creation and demand fulfillment. In the following section, we will discuss how category management as a demand-driven strategy is like in retailing with the consideration of the concept of demand management we concluded above.



### 2.3.2 Customer focus

One of the major features of category management is that it always considers customers first. Category management is consumer-centric and it increases profits based on its strong focus and better understanding of target customers (ACNielsen, 2006). Category management is a way to affect the customers' demand in defined categories on the retailer's side. In most cases, customers can't handle their demand effectively at store level in supermarkets, which lead to much waste and lost sales for supermarkets. Therefore, retailers should satisfy their customers by the systematic management of a product or service category that is regarded as interdependent or as substitutes (Holmstrom, 1997). Here, customer insight (i.e. why and how customers behavior) plays a great role in the implementation of category management. Desrochersa and Nelson (2006) suggest adding customer behavior insights to category management can enhance item placement decisions. Abdelmajid and Sandrine (2003) argue that deeper insight into customers' perceived assortment assists retailers to build their assortment effectively. According to Desrochersa and Nelson (2006), customer insight is required in the 6 steps of category management process (See Table 2-3):

Table 2-3 Customer insights in category management process

Category management process	Needed customer insights
1. Category definition	Recognize customers' tastes and needs to complement products regarding to their size, price, flavors, forms, etc.
2. Category role	Understand customers' shopping behavior to find the reasons of the choice of store and then determine the priority and importance of the category based on that.
3. Category assessment	Explore customers' consumption trends of the category, such as why to buy the category, when to buy the category
4. Category performance measures	Measures such as customer satisfaction, percentage of target customer.
5. Category strategies	Strategy should imply the qualitative and quantitative advantages of the category to the customers.
6. Category tactics	Implement the category tactics from customer perceptions.

Source: Desrochersa and Nelson, (2006).

### **2.3.3 Category management collaboration**

Previously, retailers and suppliers were situated on an opposite side. Retailers focused on making profits from suppliers' side by bargaining product price with them. However, it is becoming harder and harder to gain profits in that way as the cost of product can't be lowered continuously on suppliers' side. Thus, recently retailers have turned their sight to customers and earn profit from their side. Since, manufacturers or suppliers have full knowledge of the products, retailers need the collaboration with their suppliers to conduct better management of whole product categories in order to better understand customers and meet their needs. Category management can lead to the supplier-retailer interaction: consistent collaboration rather than competitive biddings, information sharing rather than information withholding (Lindblom & Olkkonen, 2008).

Lindblom and Olkkonen (2006) point out retailers can expect suppliers' contribution to category management in three major areas: (1) development and growth of category; Offering information of product trends; (2) recommendation of prices and (3) shelf-space allocation for the products in the category. Thus, by collaborating with suppliers, retailers can acquire knowledge and expertise in specific categories, conduct category management more efficiently and improve customer satisfaction more effectively (Kurtulus & Toktay, 2005).

### **2.3.4 Strategic retailing positioning**

As mentioned above, demand management aims to gain core competence by demand creation and demand fulfillment. As for category management, demand fulfillment implies the seamless demand management flow by collaboration with all the partners (e.g. with suppliers which has explained above), while demand creation refers to all the activities which are closely linked to retailers' differential and strategic retailing positioning. As categories are treated as strategic business units for individual retailers, another key feature of category management is that each category management has to fit in with each retailer's strategy. It has to focus on the retailer's individual format and strategy (Dupre & Gruen, 2004). It has to reinforce retailer's positioning, provide guidelines for buying and merchandising and give their context for interaction with supporting departments in the chain. Dhara, Hochb & Kumarc (2001) point out effective category management enable retailers to assign its resources across categories to improve its whole market position. According to Andersen Consulting (2000), issues such as retailers' target customers and competitors' condition help retailers to determine their strategy to reinforce its positioning.

## **2.4 Benefits**

The reasons to implement category management for retailers are as follows:

- Optimize categories

One of the biggest problems for retailers to manage their products is that there are various products of different brands displayed on the shelf. Without systemic display and management of products, it can make customers difficult to do shopping and even lead to the loss of sales for retailers. Category management helps retailers optimize the choice of products, allocate shelf space appropriately and standardize the principle on display. Especially, by implementing category management, retailers can reinforce their positioning or differentiate themselves based on strategically managing the destination category they selected and defined (Dupre & Gruen, 2004). The creation of destination category can attract retailers' target customers and the customers will become loyal to the retailers as the retailers provide what they want most. Meanwhile, the creation of destination category makes each retailer a clear positioning to differentiate itself among its retail competitors. In addition, retailers are encouraged to put emphasis on the profitability of a whole product category instead of individual brands by category management (Levy, Grewal, Kopalle & Hess, 2004), which means retailers sell products by category and they need to think how to combine those categories to gain more profit. Goerdt (1999) argues category management makes retailers define and manage the categories according to customers' shopping behavior instead of just an array of products, which helps retailers increase sales through cross-selling one category of products and its complementary ones. For example, Wal-Mart put diaper and beer together to sell which brought it a great sale. The reason of the success is due to its implementation of category management by analyzing customers' shopping behavior. It was found that American women often asked their husbands to buy kids' diapers after work, and husbands wanted to grab some beer after bought diapers. Thus, the opportunities to sell beer and diapers together are quite a lot.

- Improve inventory management

Tactics such as efficient assortment and promotion in category management can help retailers decrease stock-outs and prevent high inventory costs at the same time (Dupre & Gruen, 2004). Besides, category management facilitates the collaboration between retailers and suppliers by information sharing, thus suppliers can instantly know the product information on retailers' side and avoid the phenomena of stock-outs or high inventory by efficient reaction.

- Enhance customers' loyalty to retailers

As it has mentioned before, category management can help retailers optimize categories, allocate products and distribute product space more strategically, which make customers easy to shop. This can enhance customers' loyalty to them (Dupre & Gruen, 2004). Besides, category management facilitates retailers to improve their inventory policy, design assortment, promotion and pricing policy, which can avoid customers from getting frustrating because they can't find their desired product brand, or their expected price. This is also one of the important factors to enhance customers' loyalty (Hahne, 1998).

- Keep sustainable competitive

The reason that category management can keep retailers sustainable competitive is that category management is an ongoing strategic process instead of a temporary project or program (ECR Best Practices Operating Committee, 1997). Category management is information driven. Retailers can acquire the information of dynamic market by category assessment (i.e. assessment of customer data, market data, supplier data and retailer data) and category performance measures. Besides, category management also requires retailers to review the entire process regularly, and it also makes the review efficient, as it indicates different importance of various categories and facilitates retailers which categories should review since it is difficult for retailers to review all the categories simultaneously (Blattberg, 1995; Andersen Consulting, 2000).

## 2.5 Summary

In the above sections, literature on category management, category management process and demand management have been reviewed and elaborated. The aim has been to establish a general understanding of category management and its demand-driven side through the study of previous literature. First, category management has been defined as a management which focuses on customer need and sales profitable, regards category as a strategic business unit and requires collaboration between retailers and suppliers. Secondly, in order to further understand the essence of category management, a model of category management 8-step cycle by The Partnering Group has been presented. The model includes 8 steps, i.e. category definition, category role, category assessment, category performance measures, category strategies, category tactics, plan implementation and category review. Category definition is where retailers assign products to different categories based on customer needs or marketing objectives. Category role is to reflect the importance and specific feature of each category. There are 4 kinds of category role, namely destination category, routine category, convenience category and seasonal/routine category. Category assessment is to assess sales, profit and return on assets opportunities based on the analysis of 4 types of data, i.e. consumer data, market data, retailer data and supplier data. Category performance measures are to create appropriate category measures to evaluate plan's execution, e.g. sales volume and profitability of a category. Category strategy, or category marketing strategy can be divided into supply chain side and demand chain side. The demand-side category strategies on which we focus aim to develop the possible business for each category segment. Those strategies include traffic building strategy, transaction building strategy, profit contribution strategy, cash generation strategy, excitement creating strategy, image enhancing strategy and turf defending strategy. Category tactics ensures the successful implement of category strategies by four aspects: assortment, pricing, shelf space management and promotion. Besides, the adoption of category tactics is closely connected to 4 distinctive category roles. Plan implementation is where the action really happens and it is the most crucial step in the entire process. Category review is to



monitor and evaluate how plan action is taken and it aims to maximize the value of category management process.

Next, the demand-driven characteristics of category management have been explained. We start with introducing the characteristics of demand management and then discuss how category management has demand-management side, namely customer focus, category management collaboration and strategic retailing positioning.

In the end, we elaborate the benefits to implement category management for retailers, namely optimize categories, improve inventory management, enhance customers' loyalty to retailers and keep sustainable competitive. As above, we have made a comparison between supermarket with and without the implementation of category management (See Table 2-4).

Table 2-4 Difference between supermarket with and without category management

Supermarket without category management	Supermarket with category management
Sell products purchased	Purchase what will be sold
Product or brand-oriented	Customer-oriented
Less collaborated with suppliers or independent	More collaborated with suppliers
Gain profits from suppliers	Gain profits from customers
Annual report based on purchase data	Annual report based on actual sales
Less strategic, unclear positioning	More strategic, clear positioning

## 2.6 Working Model

### 2.6.1 Reason

The aim of this study is to analyze and resolve our research questions based on the previous literature pointed out in the above frame of reference. However, frameworks in previous literature which combines category management and its demand-side feature (i.e. customer focus, category management collaboration and strategic retailing positioning) can hardly be found. Even if it can be found from some literature study, only few of them focus on one aspect of demand side in category management, while many of them relate to the context of category management process. With that in mind, authors think it can be useful to create a working model for the present practical study based on the above model of 8-setp category management with the consideration of demand side (See Figure 2-3).



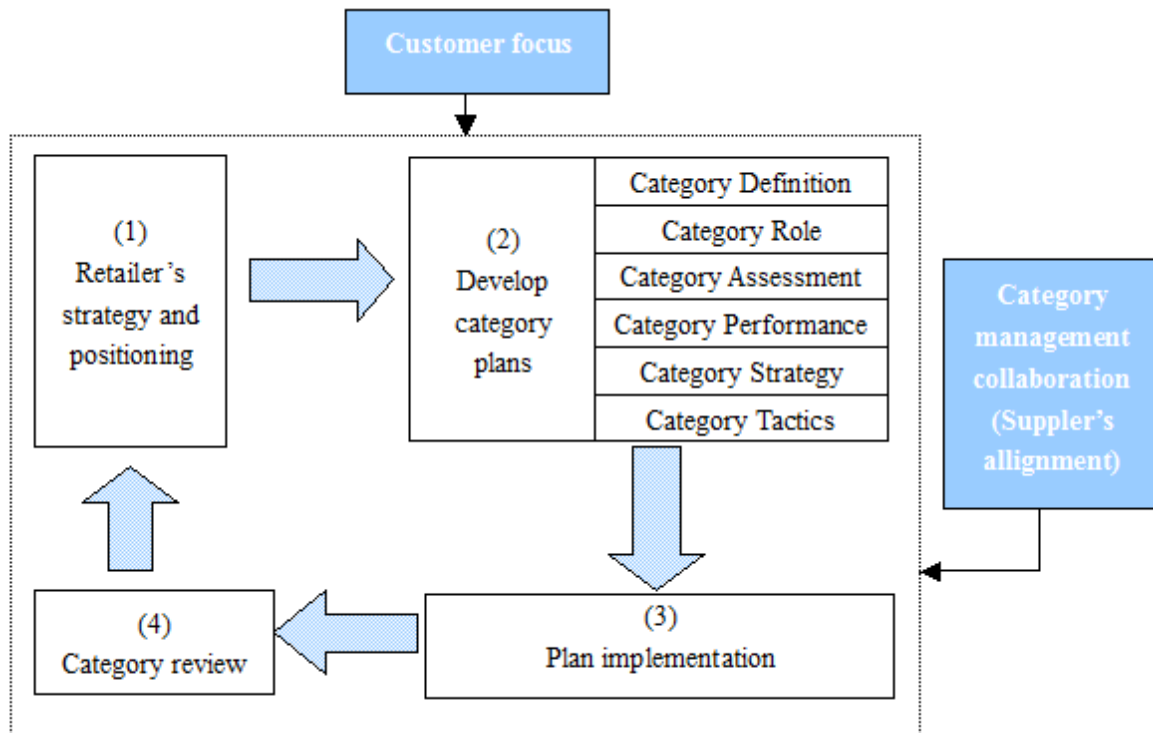


Figure 2-3 Working model based on frame of reference.

### 2.6.2 Explanation

As illustrated above, there are 4 phases in the working model. In phase 1, retailers need to determine its strategy and positioning through different kinds of analysis, such as target customers, its key competitors. Based on a store's strategy and positioning, retailers know how to manage its portfolio of categories in a strategic way. Phase 2 is where category plans are developed. Plans include 6 steps just as the first 6 steps in the Category Management 8-step cycle, namely category definition, category role, category assessment, category performance, category strategy and category tactics. In this phase, the collaboration performance with suppliers should also be analyzed, which is one of the important factors to develop a good category plan. Phase 3, plan implementation, is the most vital step in the whole category management process as it has brought the plan to reality in store. Here, we divide the plan implementation into two areas: one is in-store examination, and the other is customer communication. In-store examination is to test if plan implementation fits the business, while customer communication is to test if the changes resulted from plan implementation have been informed to the customers. In the last phase, review is to monitor or track the performance of the plan implementation. Review can include the internal measure such as financial and productivity aspect and the external measure such as customer satisfaction and marketing share. The whole working model emphasizes on the strategic positioning, collaborative relationship with suppliers and customer focus issues during the category management process. Those issues influence the category management process to become demand sided

which is based on the features of demand management above: a pulling management based on customer-centric policy, a collaborated flow by supplier alignment, create core competence by treating categories as strategic business units for individual retailers, in other words, category management fit in with each retailer's strategic retailing positioning.

## 3 Methodology

*This chapter is a science of studying of how research is done scientifically, which is closely connected to the research conduction process in chapter 2 and chapter 4. It comprises a various sequence of steps: selecting a research approach, designing case strategy as a case study, collecting data, evaluating the validity and reliability of the research instrument and pointing out the limitation of the research.*

### 3.1 Research approach

#### 3.1.1 Research types: quantitative research vs. qualitative research

There are various types of researches: descriptive vs. analytical, applied vs. fundamental, quantitative vs. qualitative, conceptual vs. empirical, etc. As considering the choice between those different research types, Kothari (2005) suggests that the choice is often done between two basic approaches: quantitative approach and qualitative approach.

Quantitative approach refers to the measurement based on quantity or amount. It is applied to quantity phenomenon. Quantitative approach deals with the generation of quantitative data that can be utilized by strict quantitative analysis in a formal way (Kothari, 2005). Qualitative approach, on the other hand, is based on subjective assessment of attitudes, thoughts and behaviors. It is applied to qualitative phenomenon. Qualitative approach is carried out either in non-quantitative form or in the form which isn't suitable for strict quantitative analysis (Kothari, 2005). The differences of those two research types are summarized in Table 3-1 (Kothari, 2005; Kumar, 2005, p.17).

Table 3-1 Difference between qualitative and quantitative approach

Difference with respect to	Quantitative approach	Qualitative approach
Scientific philosophy	Deductive or "top-down", Testing hypothesis and theory with data	Inductive or "bottom up", Generating new hypothesis and theory from data collection
Approach	Structured/rigid/predetermined	Unstructured/flexible/open
Aim to investigation	To quantify degree of variation in a phenomenon	To describe variation in a phenomenon
Nature of reality	Objective	Subjective, personal and socially constructed
Sample size	Big amount of samples	Few cases
Form of report	Statistical report	Narrative report

Source: Kothari (2005) & Kumar (2005, p.17)

### **3.1.2 Reasons to choose qualitative approach**

The research approach we adopt in the thesis is qualitative approach due to the following reasons: (1) As for the aspect of scientific philosophy, our research purpose is to fill in the gap of category management in Chinese supermarket retailing, which aims to generate new hypothesis and theory from data collection (i.e. to elaborate how category management is implemented by Chinese supermarket retailers, find if there are any barriers and challenges during the implementation of category management and give suggestions to it) rather than to test hypothesis and theory of category management. Besides, our research is also in line with the inductive approach instead of deductive approach. Inductive approach is “made for data collection, after which the data are analyzed to see if any patterns emerge that suggest relationships between variables” (Gray, 2009, p. 14), while the deductive approach “moves towards hypothesis testing, after which the principle is confirmed, refuted or modified” (Gray, 2009, p. 14). In this research, we inductively collect our theoretical data and empirical data, and then resolve the research questions by data analysis. (2) As for the aspect of data collection, studying one qualitative case (i.e. in-depths interviews in our research) and then we draw the conclusion do suit the research purpose better than dealing with great amount of samples considering the linkages (i.e. collaboration with suppliers) and complexity (e.g. 8 steps of category management process) in the background of category management. Walker, Cooke and McAllister (2008) argue that qualitative approach is suitable to be adopted to analyze the situation of complexities and to understand the concepts completely. (3) As for the aspect of analysis strategies, since each store has its own store concept based on its individual category management, which agrees with unique case orientation as one of the characteristics of qualitative approach (Patton, 2002). Patton (2002) explains qualitative approach expects each case is special and unique.

## **3.2 Research Strategy: Case study**

### **3.2.1 Definition**

Case study, as one of the basic designs in qualitative research (Flick, 2009), is to study a social phenomenon by means of an intensive analysis of an individual case (Kumar, 2005). The object of a case study can be a person, group or setting. Moreover, the case to be studied should be typical and enlightens other cases of the same type (Gerring, 2007).

### **3.2.2 Reasons to choose**

There are different kinds of research strategies such as surveys, case studies, experiments, action research ethnography, etc (Denscombe, 1998). Here, we choose case study as our research strategy. Dul and Hak (2008, p.3) define that “case study research is presented by some as a strictly exploratory research strategy in which nothing can be proven, most often by referring to the al-

leged impossibility to “generalize””. Robson (2002) adds that a case study is a research strategy to empirically investigate a specific contemporary phenomenon in a real life background. The reason to pick case study is that: (1) the type of case study research question is typical to answer “how” or “why” questions (Yin, 1994) which agree to our research questions, as authors want to gain insights in the use of category management, explore and identify category management practices of category management in a Chinese retailing background. (2) Another reason to choose case study is that it fits complex phenomena. As it mentioned before, due to the high complexity and multi-linkages in category management and because each store has its own category management based on its store concept, the adoption of case study can be useful and suitable. Case study research is appropriate when conditions are complex and multivariate (Yin, 2003). It is suitable to be applied when researchers have little control over the events.

### **3.2.3 Types of case study research: explanatory and exploratory**

Yin (1994) suggests there are 3 types of case study, namely explanatory, exploratory and descriptive designs. The explanatory case study should be a precise and thorough rendition of the characteristics and facts of the case with some considerably alternative explanations and conclusion concerning the facts. By explanatory study, researchers attempt to explain a relationship between two aspects of phenomenon. As for exploratory case studies, fieldwork and data collection can be conducted prior to academic work of the research questions and theories (Tellis, 1997). Rather than only describes a situation, exploratory research requires researchers to cope with "cause-and-effect" problems (Ghauri & Grønhaug, 2005). Exploratory research aims to analyze the empirical situations and provide findings with consideration of social interaction. In descriptive case study, researchers need to start with a descriptive theory and deal with the problems which may be appeared during the project (Tellis, 1997).

Brannick (1997) suggests researchers can use research questions to judge if the case study is explanatory, exploratory or descriptive. When the type of research questions is like “how, why and what” so that researchers can analyze the relationship between variables, explanatory research is acceptable. When the type of research questions is like “what” so that researchers can gain insight or discover an issue with little previous understanding and knowledge, exploratory research is appropriate. When the type of research questions is like “when, where and who” so that researchers can analyze the description of the general features and relations of the phenomenon, a descriptive research is suitable. Therefore, we adopt explanatory and exploratory research for our case study based on the type of our research questions.



### **3.2.4 Case selection**

Selecting a case to be studied is an initial and important step in case study research. Cassell and Symon (2004) suggest the case should be intended to be typical of the phenomenon to be studied. In other words, the case study on the linkage between category management and Chinese supermarket retailing requires the whole process to screen the selected case. In addition, case study can be undertaken by single case or many cases (Yin, 1994), and we choose to undertake one case given the limited resources and time for our thesis. Given to the above criteria, we select Lianhua supermarket as our study case. The details of case finding, selecting and connection (i.e. part of empirical data collection) will be presented in chapter 3.3.1.

### **3.2.5 Research strategy**

In this thesis, we reckon a single case study of qualitative approach with explanatory and exploratory design as our research strategy. Cassell and Symon (2004) argue a case study has its theoretical orientation, which means researchers should develop theoretical frameworks during the research by systematically examining and analyzing the data and produce greater significance. The theoretical propositions have pointed the attention, scope and links between category management and Chinese supermarket retailing. If the data collection part is reckoned as inductive one where we build concepts, hypotheses and theories in details, the following empirical analysis part is an explanatory and exploratory one where we fill in the gap of category management in Chinese supermarket retailing by analyzing the data. We attempt to understand, resolve and find deeper comprehensive insight of the problems and discover issues on category management from Chinese retailers' point of view in Chinese supermarket retailing and its barrier and challenges in China. Yin (1994) argues that the case design connects the data to be collected and conclusions to be drawn to the initial research questions, which forms a conceptual framework and an action plan in order to gain conclusions.

## **3.3 Data collection**

### **3.3.1 Primary data and its collection**

- Primary data

Primary data are those which are collected by the people directly involved or which are offered to researchers as raw evidence from the original material (Sapsford & Jupp, 1996). Primary data is more specific to the research purpose (Cooper & Schindler, 2000).

- Data collection: Interview

In our study, we choose to collect primary data by semi-structured interviews. As one of the major methods of data collection, interview refers that the interviewer creates harmony and asks the

interviewee a series of questions (Tashakkori & Teddlie, 2003). The interview within qualitative research is focusing on open-ended questions to few cases. Here, open-ended questions are characterized as the questions of a fact and interviewees' point of views on it (Silverman, 2001). Besides, the interviewees in the interview of qualitative approach are supposed to be familiar with the area where they have experienced. Thus, collecting data by interview within the qualitative approach can help researchers acquire deep understanding and insight of the study topic. The advantage of interviews is that more detailed and specific information from interviewees can be questioned and investigated when it is needed (Tashakkori & Teddlie, 2003). Interviews can be divided into fully structured, unstructured and semi-structured. The semi-structured interview we adopt in our case study is built in between the fully structured and unstructured interview. Bailey (2007) defines semi-structured interview is followed by an interview guide with specific questions but without the fixed question order to ask. Love, Li and Mandal (1999) add semi-structured interviews are open and conversations are to be stimulated. During the semi-structured interviews, new questions can be added if needed and planned questions can be omitted if inappropriate (Saunders, Lewis & Thornhill, 2003). Semi-structured interview, as one of the commonly used qualitative research approach, is suitable for the explanatory study (Saunders et al., 2003) which we apply to our thesis.

#### ● Interview process

Here we use 5 sequent steps of an interview process, which include (1) finding and selecting participants, (2) making a connection, (3) the initial contact, (4) the interview and (5) ending, suggested by Darlington and Scott (2002).

##### (1) Find and selecting participants

Since the research object and background is Chinese supermarket retailer in Chinese supermarket retailing, we decided to choose Shanghai Lianhua supermarket as our case study. The reason to choose it is that Lianhua supermarket is one of the famous and outstanding Chinese retail operators with 18-year history. In recent years, its supermarket outlet is consecutively awarded one of the most prestigious and distinctive brand names in China by the Franchise Committee of the Chinese Retail Chain Operation Association. Besides, it is also one of the leading retailers who have started to develop and implement category management in China. The reason to choose its location in "Shanghai" is that Shanghai is one of the Chinese economic and commercial centers with various retailing formats, it is filled with a large number of domestic and foreign supermarkets and it has relatively high living standards and high consumption comparing to other places in China. Thus, Shanghai Lianhua supermarket is typical and insightful for our category management case study.

##### (2) Making a connection

By contacting Shanghai Lianhua supermarket, we have called and emailed many of their stores and told them our intention and research purpose. We have explained that our research topic category management is quite promising to enlighten their retailing business but we needed their collaboration to conduct it.

### (3) The initial contact

Actually the connect process was quite frustrating as most of the requests got denied. Luckily, one of the authors' mother works as a store manager in one of the Lianhua supermarket chain stores, so we got connected with that store (Lianhua supermarket No. X), which is located in Shanghai, China. Due to the geographic limitation, i.e. author was in Denmark and the interviewees were in China, we set all our interviews by Skype.

### (4) The interview

In order to obtain deep and insightful information from the interviews and according to the interviewees' schedule, we break down our interviews to five parts. The first interview was with the manager of the Lianhua supermarket No. X, Mrs. Chen by Skype on March 20<sup>th</sup>, 2010. During the meeting, we explain our research topic, purpose and the reason to choose Lianhua supermarket as our study case. Mrs. Chen introduces the background, mission and the information about its implementation of category management. The following 3 interviews are about how category management is implemented in the store and the last one is about how Lianhua supermarket reckons the issues of category management collaboration and customer focus (See Table 3-2). Interview questions can be found in Appendix 1. All the interview questions are followed by the working model and the concerning literature in chapter 2. The aim of the interviews is to identify how category management process is conducted in Lianhua supermarket, to figure out the barriers and challenge during the implementation of category management and raise the suggestions to them.

Table 3-2 Interviews summary

Date	Interviewee	Time (Hour)	Means of interview	Topic
2010.03.20	Mrs. Chen (Lianhua supermarket No. X manager)	1	Skype	(1) Introduction from interviewer (2) Lianhua supermarket background, mission and the information about its implementation of category management
2010.03.27	Mrs. Chen (Lianhua supermarket No. X manager)	1	Skype	Lianhua supermarket No. X strategy and positioning



2010.04.03	Mrs. Chen (Lianhua supermarket No. X manager) Mr. Su (Lianhua supermarket No. X tally clerk)	2	Skype	Develop category plans
2010.04.17	Mrs. Chen (Lianhua supermarket No. X manager)	1.5	Skype	Plan implementation & Category review
2010.04.24	Mrs. Chen (Lianhua supermarket No. X manager), Mrs. Zhang (A supplier representa- tive)	1	Skype and phone call	Category management collabora- tion and Customer Focus

#### (5) Ending

All the interviews lead to a fruitful ending with much information which helps us to conduct our empirical findings and analysis later in the thesis.

### 3.3.2 Secondary data and its collection

#### ● Secondary data

Secondary data, as the data already exist, help researchers save time and cost to collect (Bryman & Bell, 2007). Steppingstones (2004) and Thietart (2001) suggest sources of secondary data include sales and marketing reports, accounting and financial reports and miscellaneous reports which are published by the organizations being researched, and also include outside sources such as statistics agencies, annual reports, library sources, etc. Generally speaking, a complete research of the secondary data should be conducted prior to the primary data research, as the secondary information can provide researchers with a useful background and specify major questions and issues which will be needed by the primary data research.

#### ● Data collection

As the collection of the primary data is by means of interview as a qualitative approach, the collection of secondary data is also by bottom-up qualitative approach. In the thesis, the sources of secondary data are website of Lianhua supermarket, and internal document such as annual report from Lianhua supermarket.

### **3.4 Literature study**

In order to gain an insightful understanding of category management and Chinese supermarket retailing, we have searched and reviewed quite a lot concerning literature. Bryman and Bell (2007) argue literature review is an important part in the thesis as it presents a basis for researchers to elaborate their research questions and establish their research design. During the research conduction, we have reviewed the literature published in various journals, looked up books in Jönköping University Library. Besides, we have also accessed some scientific electronic databases e.g. Business Source Premier, Web of Science, JSTOR, ABI/Inform, Emerald and Elsevier Science Direct, etc. Those online literature searches are conducted on Google Scholar and Google. In order to restrict the range of research area, we set our searching keywords such as demand management, category management, category management process, category management collaboration, Chinese supermarket retailing, Chinese retailing, etc (Bryman & Bell, 2007).

### **3.5 Data analysis**

The way to analyze the information researchers collected greatly depends on information type and the way researchers choose to communicate their findings to their readers (Kumar, 2005). The information type of both primary data and secondary data in our research is qualitative, which has been illustrated above. And the way we want to provide our findings to the readers is also qualitative. Miles and Huberman (1994) suggest that a general view of qualitative analysis can be conducted in three flows of activity: (1) data reduction, (2) data display and (3) conclusion drawing.

According to Miles and Huberman (1994), data reduction refers to select, focus, simplify, abstract and transform data which are written in the notes and transcriptions. The aim of data reduction is to sharpen, sort, condense the data to draw a final conclusion, which is in line with the qualitative-orientation analysis. During the data reduction process, we decide which data should be selected to analyze and summarize, which data should be pulled out, which data should be extracted to resolve research questions, and which data should be transformed into an easier way to manage and be able to make the conclusion. Secondly, data display, as another flow of analysis activity, is a visual style to present an organized, condensed of information which facilitates the conclusion making. The typical forms of display for qualitative data can be extended text in a written notes transcriptions, and also vivid displays such as matrices, graphs, charts and networks. The better data display is to help researchers get quickly accessible and condensed information, which is an important avenue to qualitative data analysis. The third flow of qualitative data analysis is conclusion drawing. As for our research, we try to explain how category management is carried out in Chinese supermarket retailing, to discover the findings and generate new hypothesis on the importance, barrier and challenges for Chinese supermarket retailers to adopt category management based on the qualitative data we collected.

Those three flows of qualitative data analysis is a continuous and interactive structure with data collection (See Figure 3-1). During our qualitative research, we move among those four nodes, which is a fluid and pioneering process aiming to resolve research questions. In this research, data reduction process continues till the end of the final report; after the data collection and data reduction, theoretical data display in chapter 2, together with the empirical data displayed and analyzed in chapter 4, which lead to the conclusion in chapter 5. Meanwhile, conclusion drawing closely connects the other 3 nodes (i.e. data collection, data reduction and data display) when it is conducted.

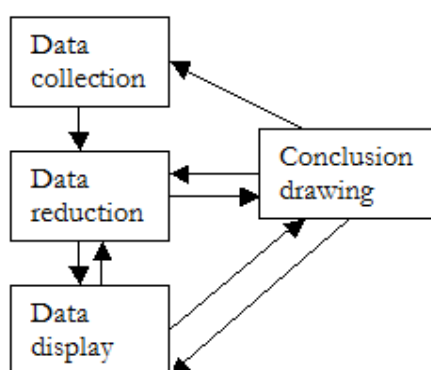


Figure 3-1 Interactive model of data analysis.

Source: Miles and Huberman (1994).

## 3.6 Reliability and validity

### 3.6.1 Reliability

The issue of reliability is important for the objectivity and credibility of the research (Peräkylä, 2006). Collis and Hussey (2003) explain reliability is about the consistency and dependability of the findings or the results, and to find whether research results can be repeatable by other researchers. Neuman (2006) implies the same result can be obtained under similar circumstances. In order to improve reliability of the research, authors try to get insightful and complete findings or results in category management in Chinese supermarket retailing by semi-structured interviews which are characterized as open conversations with open-ended questions. Besides, authors have chosen a typical Chinese supermarket for case study and elaborate category management process and give suggestions to its barriers and challenges in details. As such, the consistency and dependability have been established for the other researchers.

### 3.6.2 Validity

Validity puts forward the problem of whether a measure measures what it is supposed to measure (Zikmund, 2000). According to Thietart (2001), validity mainly concerns whether the measured

data is relevant and precise, and the extent to which can be generalized from those results. Cooper and Schindler (2000) define validity as the extent to which a test measure what we actually wish to measure, and validity is more accuracy and precise for the measurement procedure compared with reliability. In this thesis, we have searched qualitative data from different sources to enhance validity. There are two forms of validities- internal and external validity. Internal validity is about the strength of findings which identifies a casual connection, while external validity deals with issues of whether the research findings can be generalized across persons, settings and time (Bryman & Bell, 2007; Cooper & Schindler, 2000). In this research, we try to secure internal validity by conducting semi-constructed interviews. As for external validity, since the case object in our study is one of the first few supermarkets which are implementing category management in China. Its empirical experience and abundant knowledge on category management can be generalized and learned from beyond the specific research context.

## 4 Empirical Findings and Analysis

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*Within this chapter, the empirical findings are presented as case description on a low level of abstraction at first, and then the subsequent analysis is conducted on a higher level of abstraction. The analysis links to the established theory by applying working model created in chapter 2, and it is also a systematic approach based on methodology in chapter 3 to systematically compare between theory and empirical facts.*

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### 4.1 Case description

In this section, authors make a brief case description based on 1<sup>st</sup> interview. First, the background of Lianhua supermarket and its mission are introduced. Then it comes to the implementation of category management in Lianhua supermarket, which also includes “strong outlet” strategy aiming to deal with the supermarket development in a fierce competitive environment. Last, authors introduce Lianhua supermarket No. X, as one of the supermarket chain stores in Lianhua supermarket, which is focused on to analyze in chapter 4.2.

#### 4.1.1 Introduction of Lianhua supermarket

Lianhua supermarket commenced its business in Shanghai, China in 1991. For over 18 years, it has developed into a nationwide chain retail operator with a full range of retail segments through direct operations, franchises, merger and acquisitions, and it has grown to operate three main segments of retail formats, namely hypermarkets, supermarkets and convenience stores. Lianhua supermarket puts strong emphasis on its motto, “customers always come first, the very first”. Its ultimate goal is to grow from leadership to supremacy in China’s retail market (D. Chen, personal communication, 2010-03-20). However, its supermarket retailing has inevitably encountered the challenges of foreign retailing giants like Carrefour, Metro and Auchan, etc, and it can’t escape from the severely competitive pressure from other retailing formats like hypermarket and convenience store, etc. Besides, with the rapid economic development in China, Chinese living standard has improved a lot and their demands for products are higher and higher (D. Chen, personal communication, 2010-03-20). Obviously, the company is situated in a dilemma whether to shrink or to grow the scale of its supermarket retailing outlet to face the fierce retailing competition and the gradually higher demand of customers.

#### 4.1.2 Category management in Lianhua supermarket

Facing the above sever challenges, Lianhua supermarket started to adopt category management in its business in 2003. And in 2005, it began to carry out “strong outlet” strategy for its supermarket outlet, which assists its implementation of category management (D. Chen, personal commu-

nication, 2010-03-20). The main content of how Lianhua supermarket implemented category management is as follows:

- Changes in organizational structure

During category management implementation, Lianhua supermarket first made a great change in organizational structure. Previously, Lianhua supermarket organizational structure was vertical, for example, the classification of sales department, purchasing department, order department and operations department was conducted by its operation functions, and each department was a separate unit and didn't connected with each other. After the change, communication has been established among those departments and those departments are linked with each other. Figure 4-1 illustrates the current Lianhua supermarket organization structure. Lianhua supermarket conducted the reform like this: it combined purchasing department and ordering department, and established a category management group in the purchasing and ordering department. The category management group has been divided by several category teams. And in each category team, there are 3 persons. One is the team leader who handles daily decision making, and the other two are negotiator and order person. The order person is also responsible for the category data analysis. Thus, a category team can get the information about the categories' operational condition in the entire supply chain, from the purchasing to the sales.

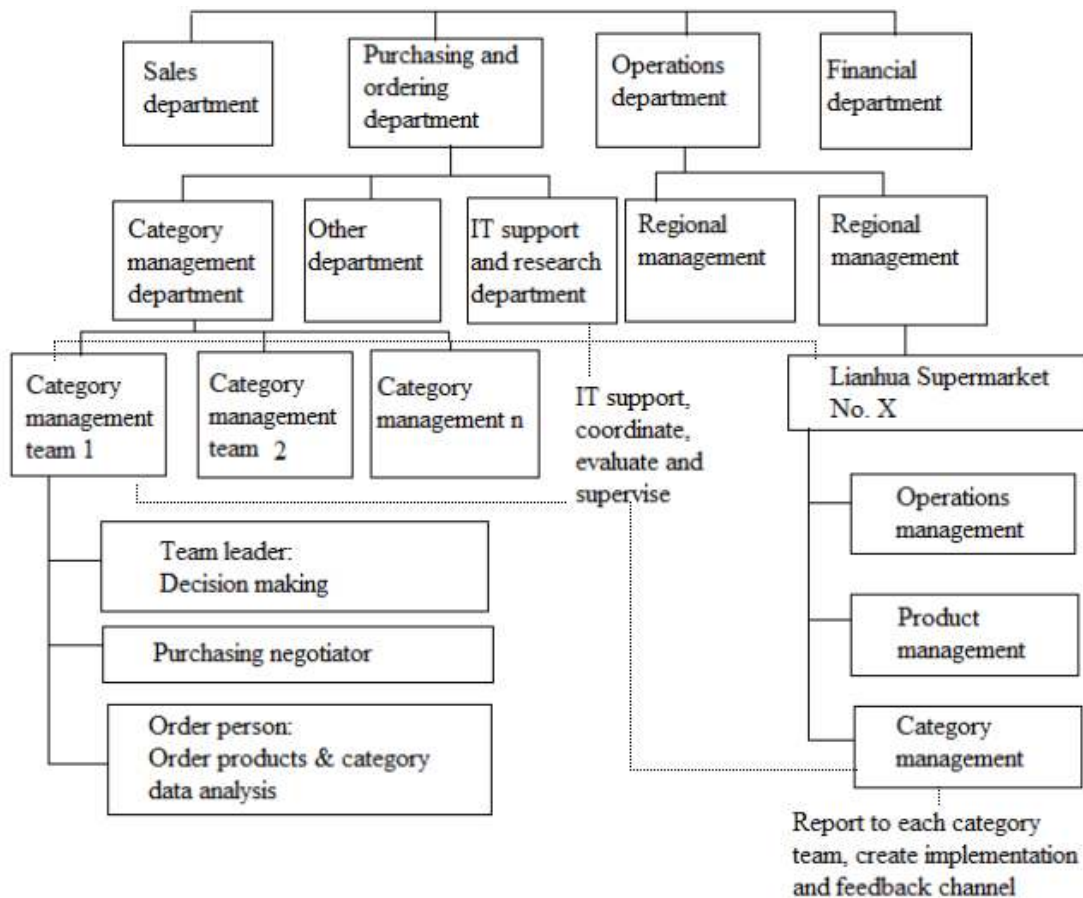


Figure 4-1 Organization structure in Lianhua supermarket.

- “Strong outlet” strategy

In 2005, the chairman of Lianhua supermarket came up with the strategy called “strong outlet” for supermarkets to enhance its core competitiveness. The main content of the strategy for supermarkets is functional adjustment and category transformation. As for supermarkets which are over 3000 square meters, they should accelerate the transition to the community stores. As for supermarkets which are around 1000 square meters, they should expand the proportion of fresh food and gradually transit to fresh food supermarkets. As for supermarkets which are about 100 square meters, they should transit to the convenience supermarkets in accordance with geographical location, consumption levels and the competition condition in the surrounding area (D. Chen, personal communication, 2010-03-20). All in all, “strong outlet” strategy aims to reinforce store’s positioning or enhance store’s core competence. Within the “strong outlet” strategy, Lianhua supermarket tries to speed up the application and promotion of category management technology so as to improve productivity of shelves through deciding merchandise mix according to the characteristic of market area. Our case’s object, Lianhua supermarket No. X, is a store around 120 square meters with 6 staff members (D. Chen, personal communication, 2010-03-20).

## 4.2 Application of working model

### 4.2.1 Phase 1: Strategy and positioning

The “strong outlet” strategy raised by Lianhua supermarket is conducted according to the scale of supermarket. Lianhua supermarket No. X is a small-sized store around 120 square meters (D. Chen, personal communication, 2010-03-27). Thus, geographical location, consumption level and the surrounding competition condition are the considered factors when the supermarket retailer designs its strategy and positioning.

Speaking to Lianhua supermarket No. X’s geographical location, it is located beside a subway station in Shanghai. Besides, there are some companies, a middle school and a neighborhood around it. Speaking to the consumption level of the area where Lianhua supermarket is located, it is relatively low-medium as the store’s customers are generally common people such as commuters, personnel of companies around, students, the surrounding residents, etc. Figure 4-2 shows the customer demographic in Lianhua supermarket No. X. Among those people, the existing over-represented customers in Lianhua supermarket No. X are mostly the commuters who are taking the subway to work or who are off work and getting off the subway there. Those people play a great role in whether the Lianhua supermarket No. X retailer is winning or losing in the market. Thus, Lianhua supermarket No. X retailer regard them as target customers and wish to concentrate on offering excellent convenience service to this core group. However, the store retailer finds it is becoming harder to reach its target group recently due to the newly-appeared re-

tailing stores around it. Speaking to its competition condition, there have been several newly-established convenience stores around it since the beginning of 2009, e.g. Companion convenience store, Kedi convenience store and so on. In addition, there are 2 traditional wet markets near it and there's a hypermarket store called E-mart, which is 2 km far away from it. Obviously, the competition for Lianhua supermarket No. X is quite fierce. As such, the strategy adopted by Lianhua supermarket No. X is to mainly focus on the management of strategic categories for its target customers, i.e. commuters, and offer the customers products with convenient service (D. Chen, personal communication, 2010-03-27).

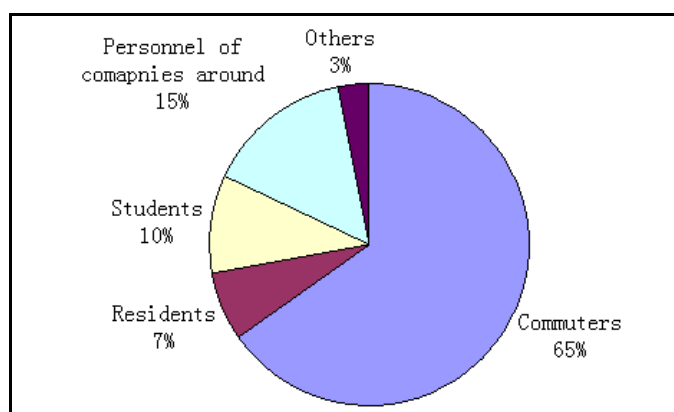


Figure 4-2 Customer demographic in the Lianhua supermarket No. X.  
Source: Lianhua supermarket No. X.

### Comment

In the case, it is wise for Lianhua supermarket No. X to mainly focus on the store's target customers rather than all the customers, which can reinforce store's positioning. Nowadays, retailers have lots of information about who are their customers and who are not, and most of them attempt to use the above information to appeal to all customers. In other words, they want themselves to be the place where all customers want to go. However, it can weaken its positioning and the strategies can't aim to all the customers.

Besides, trying to find the opportunities to improve the store's individual positioning is also an important factor for Lianhua supermarket No. X to compete with its surrounding competitors. Convenience stores such as Companion and Kedi attract their customers by their good and convenient service, the 2 traditional wet markets attract customers by their enthusiastic social interaction, and E-mart attracts customers by cheap price and large variety of products. It is natural that a supermarket positioning will be weakened if the supermarket hasn't a clear positioning and keeps in the middle of the circle (See Figure 4-3). In the case, Lianhua supermarket No. X tries to become the most convenient store among its surrounding convenience stores, hypermarket and wet market.



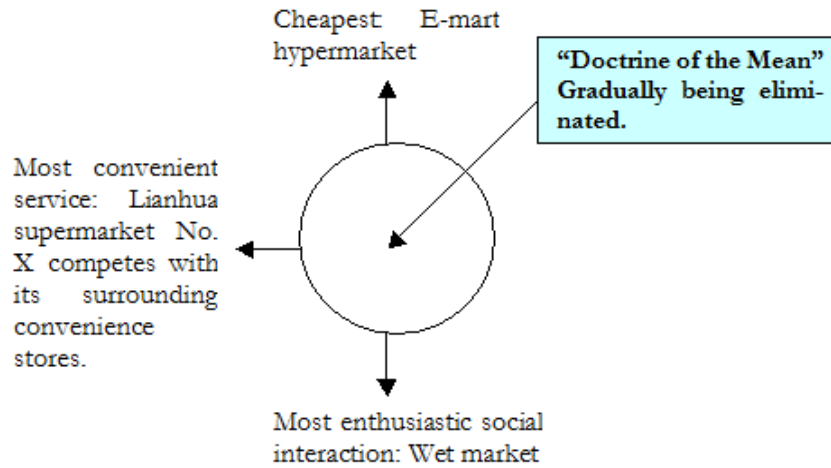


Figure 4-3 Positioning strategy of Lianhua supermarket No. X.

Third, even though Lianhua supermarket is operated in chains, we find the “strong outlet strategy” makes Lianhua supermarket to look at every store as a chain of one. Lianhua supermarket finds and outstands every stores' positioning based on the different marketplace where stores are situated and the demographics of that marketplace.

#### 4.2.2 Phase 2: Develop category plans

##### ● Category definition

In all, there are 32 categories defined by Lianhua for its supermarket outlet and Lianhua supermarket No. X normally chooses the following 22 categories to sell (D. Chen, personal communication, 2010-04-03) (See Table 4-1).

Table 4-1 Categories in Lianhua supermarket No. X

No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
Frozen food	Drinks	Dian Xin	Roasted seeds and nuts	Condiment	Cigarette
No. 7	No. 8	No. 9	No. 10	No. 11	No. 12
Snacks	Food product (made by rice or flour)	Canned food, pickles	Cured products	Personal care	Small articles of daily use
No. 13	No. 14	No. 15	No. 16	No. 17	No. 18
Kitchen utensils	Knitwear	Toy and stationery	Band-aid	Small electronic appliances	Refrigerated instant food
No. 19	No. 20	No. 21	No. 22		
Instant drink powder	Tonic	Household detergents	Candies		

Source: Lianhua supermarket No. X

In Lianhua supermarket No. X, the above 22 categories are further classified into sub-category and segment, which constitute a category structure. A category structure shows what SKUs have been included in the category based on customer needs in Lianhua supermarket No. X. Within a category, products are perceived to be inter-related or replaceable by customers. Here, due to the large size of the category structure in Lianhua supermarket No. X, we have only chosen 6 typical categories and some of their corresponding sub-categories and some of the segments in the store (D. Chen, personal communication, 2010-04-03) (See Table 4-2). Those 6 categories will be further analyzed in the sequent steps (e.g. category role).

Table 4-2 Part of category structure in Lianhua supermarket No. X

Category	Sub-category	Segment (Brand)	SKU
Drinks	Carbonated beverages	Pepsi	Further divided into SKU by size, flavor, etc
		Coca Cola	
	Fruit and vegetable drinks	Suntory juice	
		Master Kong juice	
	Functional beverages	Qi-Lin Vitamin Drink	
		Red bull drink	
	Tea	Tong-Yi Green tea	
		Suntory Oolong tea	
	Water	Nong Fu Shan Quan	
		Wahaha purified water	
Food product (made by rice or flour)	Instant noodle	Master Kang instant noodle	
		Tong-Yi instant noodle	
	Rice Vermicelli	Guo-Qiao rice vermicelli	
		Gurang-You rice vermicelli	
Personal care	Shampoo	Rejoice shampoo	
		Head & Shoulders shampoo	
	toothpaste	Crest toothpaste	
		Colgate toothpaste	
Frozen food*	Ice cream	Wall's Carte D'or	
		Mengniu ice cream	
		Yi-Li Qiao-Le-Zi	
Dian Xin	Bread	Tai shang bread	
		Da-Li-Yuan bread	
	Cake	Miao-Fu mini cake	
		Master Kang cake	
	Biscuit	Master Kang biscuit	
		Danone biscuit	

Tonic	Ginseng	Kang-Fu-Lai Ginseng tablets	
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Source: Lianhua supermarket No. X

\* There is only one sub-category (i.e. ice cream) under category “Frozen food” in Lianhua supermarket No. X.

### Comment

Category definition is quite important for a retailer’s differentiation strategy. In the case, the product category definition is completely conducted in line with the poisoning strategy of Lianhua supermarket No. X or customers’ needs: target to the commuters and offer customers convenient service. For example, the supermarket used to have the category of books and magazines, but the sales performance turned to be quite awful. Mrs. Chen explained that as for its target customers, they have to hurry themselves to go to companies and also to go back home. Therefore, it is natural that they don’t have the intention to buy newspaper and magazines. On the other hand, Category No. 2 drinks, Category No. 3 Dian Xin are usually the best sellers in Lianhua supermarket No. X, as they offer the convenience to those commuters who haven’t prepared their breakfast and want to grab something to drink and eat on their way to work.

In addition, understanding customers’ shopping behavior is also an important factor for category definition. For example, the strategic categories in the case such as the categories of drinks and Dian Xin have more detailed sub-categories and segments, which can satisfy customers’ desire of the products’ variety to a large extent; we can also find that biscuit hasn’t been defined into “Snack” category (No. 7) or “Food product” category (No. 8). This is because most Shanghai customers regard biscuits as a sub-category between snack and main food and they can eat biscuits before the main meal against starving. Such category definition is closely conducted with the consideration of customers shopping behavior.

### ● Category role

As for category role, Lianhua supermarket No. X presented the above 6 selected categories and their category roles accordingly (D. Chen, personal communication, 2010-04-03) (See Table 4-3):

Table 4-3 Category role of the 6 selected categories in Lianhua supermarket No. X

	Destination	Routine	Seasonal/Occasional	Convenience
Drinks	X			
Food product		X		
Personal care		X		
Frozen food			X	
Dian Xin	X			
Tonic				X

Source: Lianhua supermarket No. X.

## Comment

We find the reasons to decide the categories of drinks and Dian Xin as destination category role in Lianhua supermarket No. X is that:

- (1) The target customers in Lianhua supermarket No. X is commuters. Drinks and Dian Xin are the right products they want to buy before they take a subway to work and after they get out of the subway and on their way back home.
- (2) In 2009, the category of drinks accounts for 15,7% (top second) and Dian Xin category accounts for 6,7% (top third) in the total sales, so they are the most important categories for the supermarket. (See Appendix 2).
- (3) According to the suppliers' investigation, the trend of the categories (i.e. drinks and Dian Xin), is stable and increases moderately.
- (4) Drinks and Dian Xin are also the important categories for the competitors of Lianhua supermarket No. X, such as Companion convenience store, Kedi convenience store.

Lianhua supermarket No. X regards food product and personal care categories as routine categories, because those categories account for a relatively high proportion in their sales generally. Food product categories make up 1,00% and personal care categories make up 0,86% in total sales in 2009 (See Appendix 2). Those categories are relative important to Lianhua supermarket No. X, and assist the supermarket to become competitive by building traffic in store. Generally, customers who buy those categories in Lianhua supermarket No. X are residents nearby; as for frozen food or ice cream, it is seasonal category for Lianhua supermarket No. X. Sales of this category are strongly dependent on the seasons. For example, its sales are normally around 0,85% - 0,95% among the whole categories' sales in summer, but about 0,10% - 0,15% in winter in the store; Tonic is reckoned as convenience category in Lianhua supermarket No. X. For example, customers want to buy it as a gift before they visit someone living nearby.

### ● Category assessment

Category assessment, as one of the core elements in the entire category management process, is still at the initial stage for Lianhua supermarket. In the case, category assessment is conducted in 4 aspects, namely customer's side, retailer's side, market's side, and supplier's side (D. Chen, personal communication, 2010-04-03). And we take the category of drinks in the case for the example. Due to the business confidential reasons, some of the data below can't be shown.

#### (1) Customer assessment

Customer assessment is to find the target customers of the category of drinks and investigate their need and shopping habit of the category of drinks. Table 4-4 illustrates how customer assessment is conducted in Lianhua supermarket No. X. The table clearly presents the su-

permarket the insights of customers' needs and their shopping behavior of drinks' category in the store.

Table 4-4 Customer assessment in Lianhua supermarket No. X.

Questions	Findings	Answers
Why do customers by drinks?	Intension of purchase, The trend of sub-categories	Thirsty, try new brands of drinks, etc.
Who are the customers?	Customer demographic	Mainly commuters
When do customers buy drinks?	Shopping behavior	Mainly in rush hour
Where do customers buy drinks?	Shopping place	See Figure 4-4

Source: Lianhua supermarket No. X

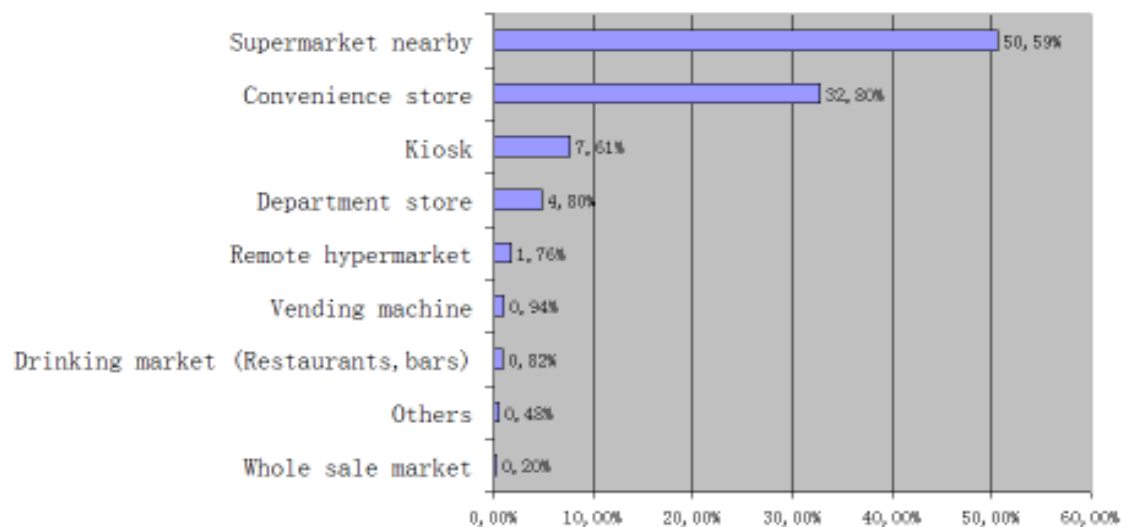


Figure 4-4 Customers' purchasing channels of drinks in Shanghai (Year: X).

XX Investigation company, N=6351.

Figure 4-4 shows all the channels of where customers buy drinks. By comparing the drinks' market share with the share of the category of drinks in Lianhua supermarket No. X, the supermarket knows that convenience stores should be most closely monitored during category tactic planning.

## (2) Retailer assessment

Retailer assessment is to learn the condition of the category of drinks in Lianhua supermarket No. X based on store's POS (point of sales) information. In Figure 4-5, we can find that carbonated beverages and fruit and vegetable drinks are the two major sub-categories which help to create most of the profits in Lianhua supermarket No. X. The supermarket needs to put more focus on them during category tactic planning.

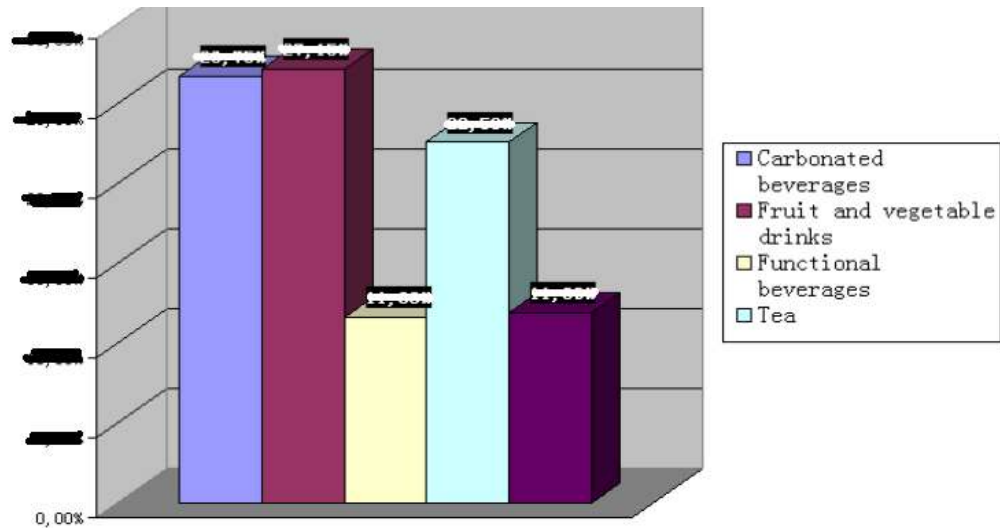


Figure 4-5 Sub-categories sales of drinks in Lianhua supermarket No. X.

Source: Lianhua supermarket No. X.

### (3) Market assessment

Market assessment is to assess the current performance of the category of drinks in the market by both Lianhua supermarket and its drinks' suppliers. In Figure 4-6, we can find that the share of carbonated beverages in Lianhua supermarket No. X is higher than that in the market, which means the supermarket needs to maintain the sales performance for carbonated beverages. On the other hand, the share of fruit and vegetable drinks in Lianhua supermarket No. X is lower than that in the market, which implies that there are growth opportunities in this sub-category for the supermarket.

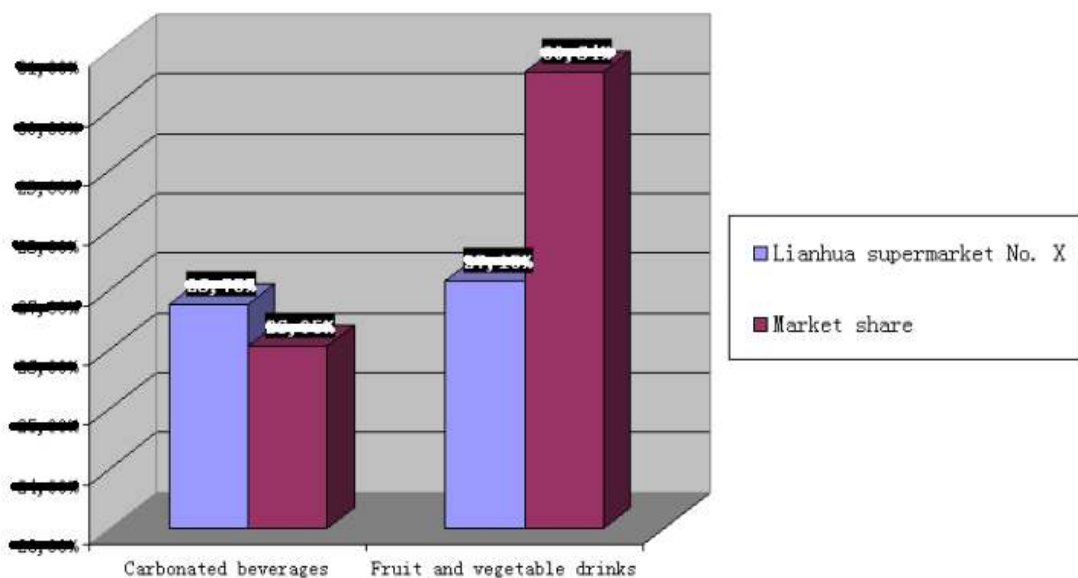


Figure 4-6 Comparison between the share of carbonated beverages and fruit and vegetable drinks in Lianhua supermarket No. X and the share of them in the whole Shanghai market.

Source: Lianhua supermarket No. X

Besides, as the market growth of both carbonated beverages and fruit and vegetable drinks is higher than that of other sub-categories products in the store, and carbonated beverages have higher sales share in the store than that in the market while fruit and vegetable drinks has lower share, carbonated beverages are reckoned as winners while fruit and vegetable drinks are regarded as opportunity gaps in Lianhua supermarket No. X (See Figure 4-7). As for sleepers and questionable categories, their market growth is relatively lower in the supermarket. And sleepers have higher sales share in the store than that in the market while questionable categories are opposite.

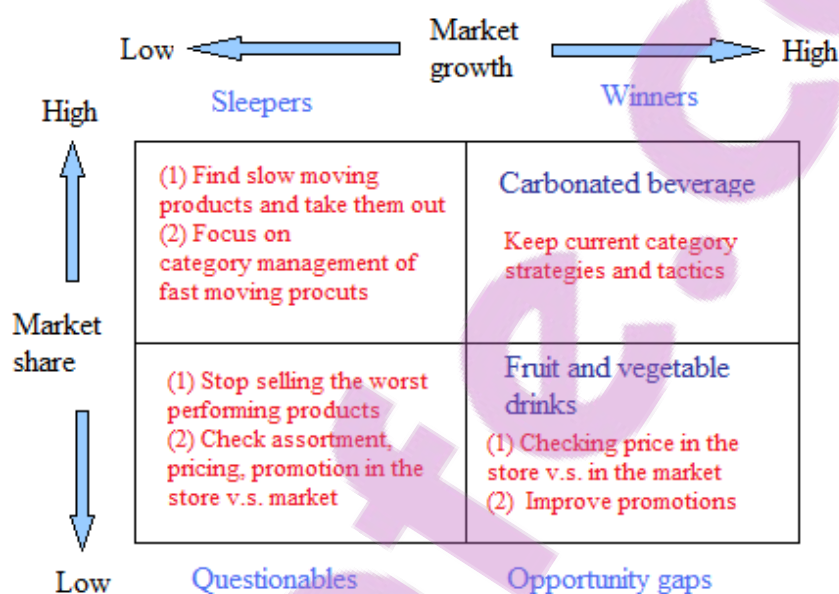


Figure 4-7 Market growth and market share matrix.

#### (4) Supplier assessment

Supplier assessment is to assess how suppliers of the category of drinks satisfy customers' needs (See Table 4-5). During supplier assessment, opportunities for the category of drinks development can also be found.

Table 4-5 Supplier assessment

Drinks' suppliers	Performance		Capability		Reliability	
	Gross margin %	Inventory	Direct store delivery (% of volumes)	Continuous replenishment (% of volumes)	Delivered as ordered (% of deliveries)	Delivered on time (% of deliveries)
Supplier 1	X	X	X	X	X	X
Supplier 2	X	X	X	X	X	X
Supplier n	X	X	X	X	X	X

Source: Lianhua supermarket No. X.

### Comment

In the case, it can be obviously found that category assessment requires tremendous time and human resources, thus how to conduct category assessment efficiently and effectively becomes quite vital and difficult for supermarket retailers. When Lianhua supermarket conducts its category assessment, it follows the below principles:

- (1) Assess the important and effective information.
- (2) Take all of the assessment expenses into consideration during information analysis.
- (3) Be clear of the source of the information and its shortcoming as well
- (4) Focus on categories that have opportunities growth during assessment
- (5) Keep the trend of the category in mind during assessment

### ● Category performance measures

In the case, category performance measures is to set the target of the categories in Lianhua supermarket No. X. The set of the target is based on the growth opportunities which are found in category assessment, and it directly affects how category strategies and tactics are implemented later. Table 4-6 illustrates how category performance is measured in Lianhua supermarket No. X (D. Chen, personal communication, 2010-04-03) (Table 4-6).

Table 4-6 Category performance measures in Lianhua supermarket No. X

	Current	First year		Second year		Third year	
	Actual	Actual	Goal	Actual	Goal	Actual	Goal
Sales value							
Average gross margin							
Average inventory days							
Number of items on shelf							

Source: Lianhua supermarket No. X.

### Comment

In order to make the data of category performance measure easy to get and make the measure to be conducted continually, Lianhua supermarket set the above 4 measurement. Sales value is based on each category's sales in Lianhua supermarket No. X and the information is easy to get. Average gross margin is an easy calculation based on data of suppliers and Lianhua supermarket No. X. Average inventory days are to calculate the shelf inventory and warehouse inventory per day, which is also a low cost measurement. Number of items on shelf only needs supermarket store employees to observe whether the shelf has been managed effectively.

### ● Category strategies



As for category strategies, let's take an example of the category of drinks. The category of drinks plays a destination role and its category performance measures are mainly market share growth, turnover increase, and gross profit improvement. Thus, its implied category strategies are traffic building, transaction building and turf defending. Then, take category features into consideration. As it has been found in category assessment, supermarket outlet is threatened by convenience store outlet regarding to purchasing channels of drinks in Shanghai, turf defending strategy is appropriate to be selected. As for the carbonated beverages, fruit and vegetable drinks, the 2 major sub-drink categories in the case, the first should keep its traffic and transaction building, while the latter should increase its share by traffic building and turf defending. As for the new drinks, it suits excitement creating strategy. Therefore, the appropriate strategies for the category of drinks in Lianhua supermarket No. X are traffic building, transaction building, excitement creating and turf defending (D. Chen, personal communication, 2010-04-03) (See Table 4-7).

Table 4-7 Selection of drinks' strategies in Lianhua supermarket No. X

		Traffic building	Transaction building	Profit contribution	Cash generation	Excitement creating	Image enhancing	Turf defending
Category role	Destination	X	X			X		X
Category performance measures	Market share growth	X						X
	Turnover increase	X						X
	Gross profit improvement		X	X				
Category features	Carbonated beverages	X	X					
	Fruit and vegetable drinks	X						X
	New drinks					X		

Source: Lianhua supermarket No. X.

### Comment

In Lianhua supermarket No. X, the selection of category strategies is connected to category roles, targeted to category performance measures and the features of categories as well. After the adjustment of those three factors, category strategies can be determined.

### ● Category tactics

#### (1) Assortment

As for assortment tactic, there are 2 main points which need checking, namely what SKUs are unproductive and should be deleted and whether there are any missing SKUs. For the first point, Lianhua supermarket compares the sales performance of the SKUs in its supermarket and the SKUs of that category in the market investigation, find if there is any SKUs with high ranking in the market which Lianhua supermarket hasn't sold, and then determine

to add new SKUs with the consideration of category role, strategy and performance measures. For the second point, Lianhua supermarket uses 80%-20% rule to decrease or remove SKUs which are unproductive (D. Chen, personal communication, 2010-04-03) (See Figure 4-8). 80%-20% rule refers that 20% SKUs contributes 80% sales value in a store, and the remaining 80% SKUs needs to be decreased or removed with the consideration of the SKU's category role, strategy and performance measures. For example, if the amount of SKUs of drinks is set to decrease 5% in the category performance measure, and the supermarket finds 80% sales of drinks is derived from 40% SKUs of drinks, that is to say, the remaining 60% SKUs of drinks only contribute 20% sales of drinks. Then, the supermarket needs to decrease or delete those 60% SKUs of drinks by 5% of the category. Besides, make sure those 5% of drinks' category doesn't agree with its category strategies which are traffic building, transaction building, excitement creating and turf defending in Lianhua supermarket No. X.

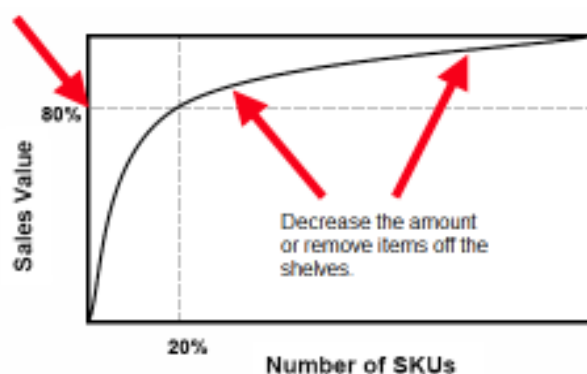


Figure 4-8 80%-20% rule.

### Comment

Decreasing, deleting or increasing SKUs should be conducted with the consideration of their categories roles, strategy and performance measures.

### (2) Pricing

In the case, pricing tactics should be in line with each category's strategies which can be accessed in category assessment (D. Chen, personal communication, 2010-04-03). Table 4-8 shows some of the products in drinks' category and their corresponding pricing tactics in Lianhua supermarket No. X.

Table 4-8 Pricing tactics in Lianhua supermarket No. X

Products	Category strategies	Pricing tactics
Carbonated beverages	Transaction building	Price should be lower than the competitors' price during their promotion.
Fruit and vegetable drinks	Turf defending	Price can't be higher than the competitors' normal price.
New drinks	Excitement creating	Normal price

## Comment

Category pricing tactics should be in line with the corresponding category strategies.

### (3) Promotion

In Lianhua supermarket No. X, promotion is closely connected to every category's strategies (D. Chen, personal communication, 2010-04-03) (See example: Table 4-9).

Table 4-9 Promotion tactics in Lianhua supermarket No. X

Category strategies	Category tactic examples
Transaction building	2 boxes of 250 ml Meng-Niu yogurt only cost RMB 3,8 (One for RMB 2,3 normally)
	Buy a box of 180g ginger soup, get a package of Oreo cookies free
Excitement creating	Sell moon-cakes during mid-autumn festival
	Discount for Kang-Fu-Lai Ginseng tablets within this week
Image enhancing	Free sample
Profit generating	Set a special promotional shelf for new drinks (without discounting)

After promotion has been conducted, the awareness and attractiveness of various promotion means also needs to be evaluated (D. Chen, personal communication, 2010-04-03). Figure 4-9 shows awareness and attractiveness of biscuit promotions in Lianhua supermarket. As we can see, the effective promotions for biscuits are price reduction/discount, get one extra pack free and free tasting/tasting before buying. Thus, those different kinds of promotion for biscuits in Lianhua supermarket No. X are preferable to use the top 3 in the figure in the future.

	Impact on behaviour	Ranking			Weighted Index
	Effective Promotions	1st Promotion	2nd Promotion	3rd Promotion	
Base	611	611	611	611	611
	%	%	%	%	
Price reduction /Discount	74	28	23	13	100
Get one extra pack free					
-same kind of biscuit	64	23	22	12	87
Free tasting/ tasting before buying	63	24	13	12	77
Get one extra pack free					
-other kinds of biscuit	47	10	15	11	50
Coupon	30	2	7	10	21
Get one extra pack free					
-non-biscuit product	29	2	6	7	17
Free sample/product	26	4	4	9	20
Sweepstake promotion (lucky draw)	18	3	2	5	13
Shop assistants introduction					
/recommendation	16	2	2	4	10

Base: All respondents / Source:interview

Figure 4-9 Awareness and attractiveness of biscuit promotions in Lianhua supermarket.

## **Comment**

Promotions should agree to the category strategies in the store. Category promotions should also be checked based on the awareness and attractiveness to the customers.

### **(4) Shelf management**

As for shelf management, it is currently controlled by Lianhua supermarket No. X itself. And the basic principles of shelf management are to display the products with the consideration of customers' shopping behavior, customer flow, the relation of different categories, and especially category roles and sales. For example, the destination categories such as drinks, Dian Xin and cigarettes which have highest sales in the store are put on the best shelf. The staff in headquarter don't supervise the shelf display in Lianhua supermarket No. X, and only the regional department send personnel to come up with its instructional advice on the store's shelf management once every quarter (D. Chen & J. Su, personal communication, 2010-04-03).

However, it has been gradually realized that the advice usually can't achieve its expected effect in most stores. Sometimes, the implementation of the advice may cause conflict with the store's concept. Thus, Lianhua supermarket has raised its future shelf management project called "Product configuration table project based on Decision Support System (DSS)".

Product configuration table is made for some supermarket in a certain period. It actually defines what products a store is selling in the certain period and how the products are displayed in the store. Product configuration table is made by experienced staff in headquarter of product management and the powerful DDS. DDS can intelligently analyze the real-time sales transmitted by each supermarket. Thus, Product configuration table has embodied the perfect combination between customer information and product information. Product configuration table is implemented by each supermarket store. The performance of implementation of product configuration table is supervised by the regional department. Above all, product configuration table project is to effectively allocate the shelf space for displaying products, to appropriately arrange the shelves for displaying products and to present it in the form of a table. The project is to make and adjust the product configuration table by DDS under the supervision of the staff in headquarter of product management. The object of shelf management which is to put the best products on the best shelves can be realized by managing shelves according to the product configuration table.

The whole project can be divided into two parts: making product configuration table (See Figure 4-10) and implementation and adjustment of product configuration table (See Figure 4-11).

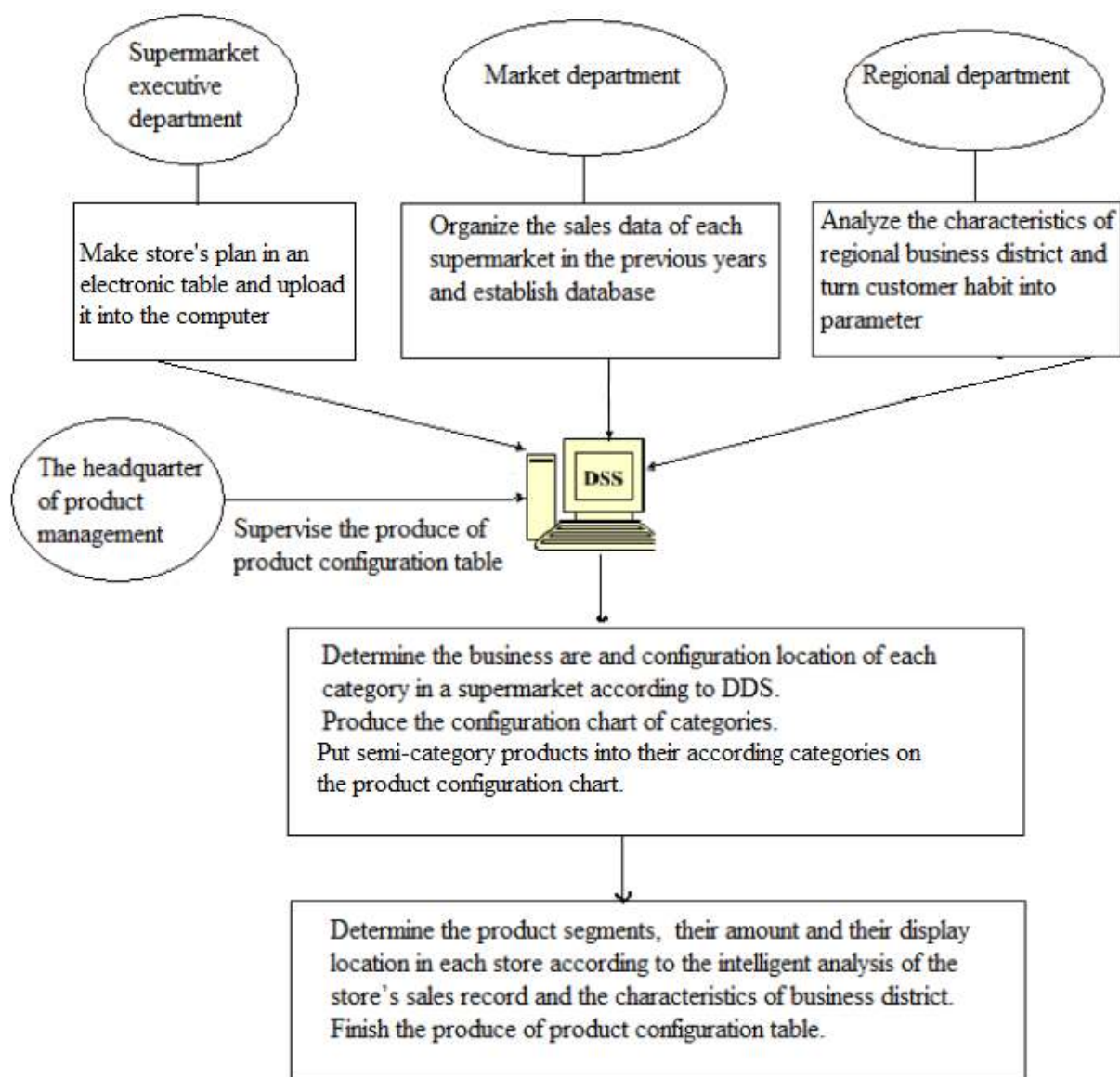


Figure 4-10 The process of making product configuration table.

Source: Analysis report of integrated merchandising management for Lianhua supermarket outlet

The description of the process is as follows:

Preparation -- Each supermarket executive department makes the store's plane chart in the form of an electronic table and uploads the table to the computer. Each regional department analyzes the business district characteristics where each store is located and the customer shopping habit of each store, then turns them into the concerning parameter and uploads them to the computer. Thus, each store's database can be established based on the above 2 tasks. The market department organizes the sales data of previous years in each store and establishes a database. The database should be connected with the suppliers' database.

First period -- DDS determines the displace area and configuration location for each category in a supermarket, and makes product category configuration chart. Then put the semi-category products into their according categories on the product configuration chart.

Second period -- DSS determines each product segment, its amount and its location according to the intelligent analysis of store's sales record, the characteristics of the business district and product information (e.g. Gross margin, shape) based on product category configuration chart. Experienced personnel in product management headquarter are needed to supervise DDS. Meanwhile, suppliers' characteristics and delivery condition should also be considered in this step.

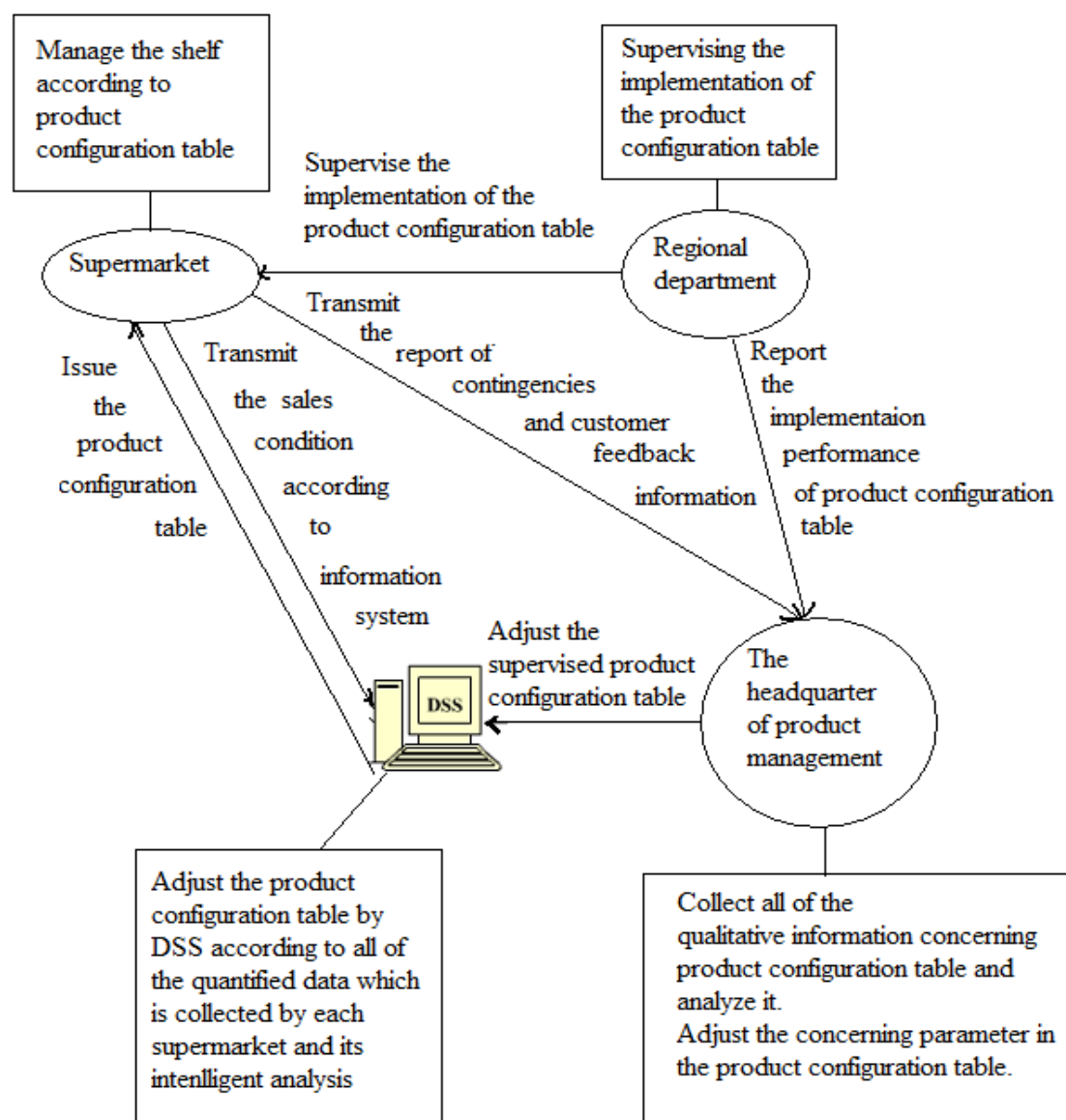


Figure 4-11 The process of implementation and adjustment of product configuration table.  
Source: Analysis report of integrated merchandising management for Lianhua supermarket outlet

The description of the process is as follows:

Duties and implementation method of the product management headquarter -- personnel in product management headquarter need to analyze some qualitative information such as news, policy, customer advice and suggestion, etc which concerns product configuration table. They need to transform the above information into the quantitative information according to their substantial experience and good business feeling. Thus, they adjust and improve the concerning parameter in the product configuration table produced by DDS, and make it more suitable for the market actual demand. Besides, the adjustment of new products introduction, un-salable product elimination and seasonal product promotion should have its corresponding program process to conduct the adjustment of product configuration table. DSS collects all of the data which can be quantified (mainly the sales data offered by POS system) by the advanced information system from all supermarkets, and then adjusts product configuration table based on intelligent analysis.

Duties and implementation method of regional department -- regional department is responsible for supervising the implementation of product configuration table in the supermarket. It will receive the copies of product configuration table of all supermarkets within the region. It needs to visit the stores within its region either regularly or irregularly, conclude the implementation performance of product configuration table in each supermarket, and then analyze it and submit it to the headquarter of product management in the form of report.

Duties and implementation method of supermarket -- supermarkets should manage the product display according to the product configuration table, and directly inform headquarter of product management of the urgent condition and customers' feedback.

### **Comment**

Contrary to simply obey the instructional advice on shelf management from Lianhua supermarket regional department currently, every Lianhua supermarket stores can really put the best products on the best shelves by means of Lianhua supermarket's future shelf management project "Product configuration table project based on DDS", which has also prevents the homogeneous advice raised by Lianhua supermarket regional department to its corresponding stores.

### **4.2.3 Phase 3: Plan implementation**

In Lianhua supermarket, plan implementation mainly focuses on in-store examination, which includes the actions (e.g. collecting all SKUs' information in Lianhua supermarket No. X, increasing, decreasing SKUs based on assortment tactics, determining price, planning promotion and shelf presentation), the responsible persons to deal with the actions (e.g. category manager, store



manager, supplier partners, etc) and the timing for the actions (D. Chen, personal communication, 2010-04-17).

#### 4.2.4 Phase 4: Category review

Category review is mainly based on whether the previously-made category performance measure has been achieved successfully or not. If some goals haven't been achieved, the fundamental problems should be checked according to category assessment and more appropriate category strategies should be found and applied in the next round of category management (D. Chen, personal communication, 2010-04-17).

#### 4.2.5 Category management collaboration

In the process of category management implementation, Lianhua supermarket has strengthened the communication with its suppliers and it has established strategic partnership with its major suppliers. Till now, Lianhua supermarket has established strategic relationship with suppliers such as Bright Dairy, Coca-Cola, Huiyuan Juice, Danone and P&G, etc (D. Chen, personal communication, 2010-04-24). Figure 4-12 shows the changes of Lianhua supermarket's relationship with its suppliers. As for Lianhua supermarket, it has changed itself from a simple product purchaser into a product reseller by category management. As for its suppliers, they have changed its brand-business concept to category-business concept. Besides suppliers assist Lianhua supermarket to define category roles, conduct category assessment mentioned above, the main issues of category management collaboration also include:

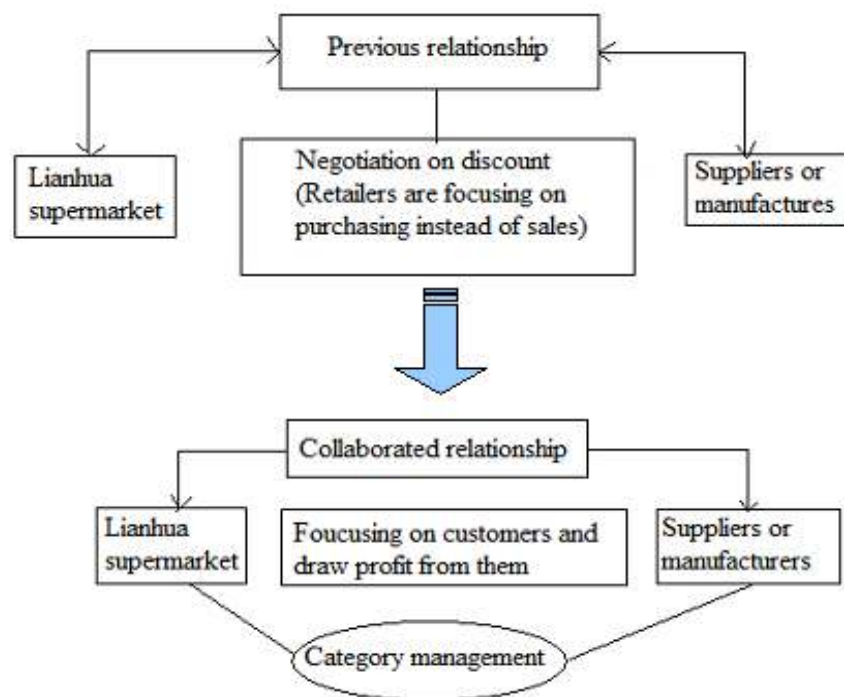


Figure 4-12 Relationship changes in Lianhua supermarket.



- Hold product exhibitions

Lianhua supermarket and its suppliers hold product exhibition once every three months, and managers of each supermarket stores can attend it and gain better knowledge of products of different categories, especially new products (D. Chen, personal communication, 2010-04-24).

- Establish platform for information sharing

Lianhua supermarket has established platform for information communication with their suppliers. By the platform, order accuracy and efficiency of various categories have been increased, continuous product replenishment has been achieved and electronic orders, reconciliation and online payment have been established. For example, in 2004 Lianhua supermarket and Bright Dairy have established VMI (Vendor managed Inventory) project. By VMI, Lianhua supermarket loads its POS inventory and sales information from its EDI system to Bright dairy's ECR system, and Bright dairy's ECR system forecasts the orders and sends back its delivery information to Lianhua supermarket's EDI system. As such, the out-of-stocks of Bright Dairy milk category has been reduced from 27,8% to 15%, and the inventory has been decreased from 10,7% to 6%, and the freshness of dairy category has been enhanced (D. Chen, personal communication & Y. Zhang, 2010-04-24). In 2005, Lianhua supermarket cooperated with P&G and developed smart pricing system for better conducting pricing tactics in category management (D. Chen, personal communication, 2010-04-24).

Although Lianhua supermarket tries hard to strengthen collaboration with its suppliers, the category management collaboration is still on the fence and Lianhua supermarket hasn't implemented category management for all of its categories. This barrier is further elaborated in chapter 4.3.

#### **4.2.6 Customer focus**

Lianhua supermarket keeps customers' needs and their shopping behavior in mind when it conducts category definition, category role, category assessment, category performance, category strategy, and category tactics with its suppliers. Especially, the category management implemented in Lianhua supermarket doesn't only require to meet the customers' needs or to adapt the market passively. In fact, customers don't have static shopping behavior, and their shopping behavior can be affected. In other words, Lianhua supermarket tries to influence customers' shopping behavior actively by category management. For example, when conducting category definition and category role, Lianhua supermarket analyzes customer information based on not only the data from suppliers or investigation companies but also various channels such as POS data or its database (D. Chen, personal communication, 2010-04-24). Thus, Lianhua supermarket can consider the features of market where its different stores are located, and it can avoid homogenization of categories in each store and enhance customer satisfaction. Or, Lianhua supermarket

conducts differentiated promotion targeted to various customers based on promotion evaluation during implementing category tactics.

### **4.3 Barriers and challenges**

Contrary to foreign supermarkets which have been carrying out category management quite deeply and completely for a long time, Lianhua supermarket has just initiated category management and confronted quite a few barriers and challenges during its implementation of category management. We conclude them as follows:

- **Insufficient systems to support the implementation of category management**

Due to the high expense of developing new information system, Lianhua supermarket lacks such analysis techniques, systems and experience, so its current category assessment in the phase 2 of the working model has to be merely according to the sales information, inventory information in POS system, and store managers' experience. Thus, data is insufficient and hard to get analyzed, various types of data interfaces are not unified and hard to conduct statistics and analysis in the same platform, data management and control is poor.

- **Collaboration is still on the fence**

Currently, Lianhua supermarket implements category management for only part of the categories and implement it to a certain degree due to some objective reasons. This is because implementation of category management is mostly dominated by suppliers in China currently. Those suppliers, especially foreign-funded enterprise such as P&G or Coca Cola, have been engaged in this area for quite a long time. They have a more complete and more mature operational system and they are more experienced than Lianhua supermarket regarding to category management. They actively introduce their previous successful experience of category management collaboration to the Chinese supermarkets such as Lianhua supermarket and Lianhua supermarket has to depend on them. However, after few years' category management collaboration, Lianhua supermarket has realized that those suppliers can control its supermarkets' category choices and make the choice maximally match the suppliers' product line and new product development direction on one hand (e.g. those suppliers can prove Lianhua supermarket how right to choose their products by a large number of customer investigation), on the other hand, those suppliers can kill their rivals, quickly upgrade the concentration of their products in the categories and consolidate their advantageous positioning regarding to Lianhua supermarket by category management collaboration. When most of the Chinese supermarkets like Lianhua supermarket implement category management in the way which those suppliers have designed, their product mix will be gradually convergent, competition will be increasingly brutal. Thus, Lianhua supermarket hasn't turned the project of category management as its business process completely. And category management collaboration is still on the fence as for Lianhua supermarket.

- Lack of internal managerial techniques

Category management is a management concept which is involved in the whole operational process, and it doesn't only belong to some department. In the case, however, each department has its short-term business goal and only cares about its current performance. Thus, each department has been split by interest conflict of the assessment rather than coordination or communication, which is completely contrary to Lianhua supermarket's original intention. For example, purchasing and ordering department of Lianhua supermarket can have the initiative to carry out category management and get the support from suppliers, while Lianhua supermarket stores lose their work of the initiative and have to support category management department and do a lot of work based on complicated category plan. Sometimes, the category plan can't be carried out in its supermarket stores as the plan is made too detailed and the process is too complicated. Especially, when the new products have been introduced, the whole category management design has to be adjusted and done once again. And if it hasn't been done, the effect of category management will be compromised.

- Conflicts between category concentration and customers' personalized shopping

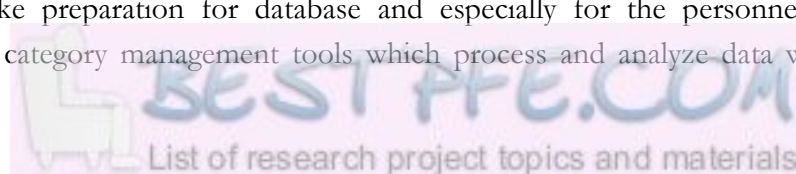
After implementation of category management, it is found that category amount has decreased while sales have increased in Lianhua supermarket. Thus category management is destined to the enhancement of category concentration. If today's customers' shopping were homogeneous, category concentration could be with the trend. However, customers are more and more interested in individualized or personalized things. Customers' personalized shopping has become an irresistible fact, which is contrary to category concentration.

## 4.4 Suggestions

Based on above barriers and challenges which Lianhua supermarket meets during the implementation of category management, authors have come up with the correspondent suggestions as follows:

- Invest IT resources

Category Management is a data-driven business process that requires a significant amount of analysis about consumers, market, retailers, and suppliers (JIPECR, 1995). Gnan (1994) states that the challenges for firms carrying out category management not only lie in information and information technology, but also are from whether category personnel are competent and with the adequate skills and knowledge, so we suggest Lianhua supermarket should enhance information system to support category management, especially in category assessment in phase 2 of the working model, make preparation for database and especially for the personnel's adequate knowledge to apply category management tools which process and analyze data warehousing,



business intelligence and other sources of data. Besides, supply-side IT systems regarding to category management processes such as EDI, CRP should be also considered to be compatible with Lianhua supermarket's IT systems. Hutchins argues (1997) that development of a technological interface for category management should be considered in order to improve data sharing and analysis between retailers and suppliers.

- Establish win-win strategic relationship

Culpan (2009) points out multiple companies agree to share their resources for a common interest. In other words, companies enter into a strategic alliance voluntarily with the desire of common benefits. Thus, we suggest that Lianhua supermarket should find out common goals and benefits between suppliers and Lianhua supermarket itself to avoid the risk due to relationship breakup. The degree of information sharing between the two parties should be various and depend on the nature of the relationship. Both Lianhua supermarket and suppliers should agree to make decisions which benefit overall category improvement instead of single SKU or brand. Meanwhile, in order not to depend on suppliers too much, Lianhua supermarket should also prepare its own resources like "Product configuration table project based on Decision Support System" mentioned before.

- Top management commitment

Category management requires high focus and involvement among top management personnel, which is the key factor of whether category management can be implemented successfully or not. Decision makers in the supermarket retailing should have fully understood the concept of category management, pay much attention to it, make a long-term strategy and market investigation. Otherwise, just by conducting business with their own willing, it will greatly affect the implementation of category management and the profit it brings. Besides, the implementation of category management will challenge the supermarket retailer's current business routines and practices. This requires great support and vigorous promotion by top management in Lianhua supermarket. Dupre and Gruen (2004) argue that a top management should believe in category management will change the entire organization and overcome the internal barriers.

- Improve internal collaboration

Besides establishing win-win strategic relationship with Lianhua supermarket's suppliers, the supermarket should also establish internal collaboration. Dunne (2008) thinks that internal alignment is an essential precursor for external collaboration. In the case, the cross-functional and cross-departmental category management requires internal collaboration. In other words, category management should be involved in the whole business process, and it doesn't belong to some functional department. Purchasing and ordering department should deal with the return of off-shelf products and the alteration of product specifications. Category management team should handle category definition, product analysis, shelf space allocation, and give category ad-

vice to purchasing personnel on the introduction of new products and product elimination. Category management team should also be responsible for purchasing personnel, operational department personnel and supermarket store personnel's category management training and daily communication. Ordering personnel should be sure of the replenishment in time. Delivery center should carry out the instruction of product delivery and product return raised by purchasing personnel. Operations department or regional management department should supervise product display in each supermarket store according to category management teams' instruction. IT support and research department should offer data and systems which support category management decision making and improve business process productivity. All departments in Lianhua supermarket should hold customer-centric category management as their common principles and internal collaboration should be seamless and consistent.

- Improve category performance measures

Category performance measures which are in phase 2 of the working model should not only include sales, gross margin, inventory, but also focus on customer value, competitive differentiation, which can prevent retailers from conducting category management in isolation with the stores' positioning and neglecting the importance of customer' needs, especially target customers' needs. After all, category management is a customer-centric strategy and it treats categories as a strategic business unit to customize categories on a store-by-store basis and satisfy customer needs (Nielsen Marketing Research, 1992). Next, determination of category performance measures should target the end customers' benefits instead of each link's end benefits. In other words, category performance measure is a balanced process across internal finance, asset, customer and market. Unbalanced measures can result in wrong decision makings.

## 5 Conclusion

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*This summary section mirrors each research question concisely.*

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Due to the tremendous economic changes and gradually fierce competition, more and more Chinese supermarket retailers find that their traditional management which manufacturers dominate the whole chain has become a bottleneck of the supermarket development and it is hard to improve their companies profit by the traditional management. As end-customers can trigger actions up the supply chain, supermarket retailers gradually realize they should focus on the needs of the marketplace, rather than start from the supplier or manufacturer and work forward. Category management which was initially raised in the early 90s and first implemented by Wal-Mart and P&G has made a good performance in sales value and inventory turnover in western countries. It is a demand-driven strategy and its core is to satisfy customers' needs by creating maximal value to customers. In China, category management was commenced to carry out among some Chinese leading supermarket retailers in 2003. However, researches on category management in Chinese supermarket retailing can be hardly found. Our thesis purpose is to fill in the gap by studying how category management is implemented in Chinese Lianhua supermarket. To fulfill the purpose, we have raised three research questions and our concise answers to them are as follows:

- How is category management implemented by Lianhua supermarket?

When implementing category management, Lianhua supermarket closely adheres to the demand-driven side of category management. First, the strategy of “strong outlet” facilitates each chain store of Lianhua supermarket to have a clear store positioning which can enhance each store's core competitiveness. Second, Lianhua supermarket tries to establish category management collaboration with its strategic suppliers. Instead of drawing profit from suppliers by negotiation on product discount, Lianhua supermarket holds product exhibitions for its suppliers and supermarket stores, establishes platform for information sharing. It endeavors to earn money from end customers with the collaboration with its suppliers through category management process: it defines category roles, conducts category assessment with the assist of its suppliers due to its suppliers' better understanding of the products in marketplace. Third, customer focus has also been considered in the whole category management process in Lianhua supermarket. Especially, Lianhua supermarket tries to influence customers' shopping behavior actively rather than adapt the market passively during category management implementation, which can avoid possibilities of homogenization of categories in each store and enhance customer satisfaction.

Speaking to the 8-step cycle of category management, category definition in Lianhua supermarket No. X which has more detailed sub-categories and segments of drinks and Dian Xin outstands its clear positioning to its target customers' needs and shopping behavior. Four category roles are

defined by the categories' sales percentage, their characteristics and trend in the market and their performance in Lianhua supermarket No. X's competitors. Category assessment which includes customer assessment, retailer assessment, market assessment and supplier assessment normally requires tremendous time and human resources, so Lianhua supermarket tries to focus on important and effective information, avoid excessive assessment expenses and become aware of the information source and its shortcoming during assessment. Category performance measures which include sales value, average gross margin, average inventory days and number of items on shelf are set based on the growth opportunities found in category assessment in Lianhua supermarket No. X. To make the consistency of category plan implementation, data is made easy to get and measure is designed easy to conduct. The selection of category strategies is closely connected to category roles, targeted to category performance measures and the features of categories as well. As for category tactics, Lianhua supermarket uses 80%-20% rule for assortment, determines category pricing and promotions based on correspondent category strategies, evaluates the promotion effect, and for shelf management, Lianhua supermarket is still situated in the initial stage. It is going to develop its product configuration table project based on DDS in order to manage shelf space and shelf location across the department in Lianhua supermarket in an integrated way.

- Are there any barriers and challenges when Lianhua supermarket is implementing category management?

In the case, we find barriers and challenges for Lianhua supermarket when it carries out category management are: insufficient systems to support the implementation of category management, collaboration with suppliers is still on the fence, lack of internal managerial techniques and conflicts between category concentration and customers' personalized shopping.

- What are the suggestions to those barriers and challenges?

Based on the above barriers and challenges, we suggest Lianhua supermarket should invest IT resources, establish win-win strategic relationship, enhance top management commitment, improve internal collaboration and improve category performance measures.

## 6 Discussion

*In this section, authors present the theoretical and managerial implications of the study. The further research is recommended later.*

### 6.1 Theoretical implication

Judging from the empirical findings in chapter 4, we think the working model raised in chapter 2.6 suits the research purpose, and most of the review made from the previous literature on category management fits the case environment, namely Chinese Lianhua supermarket retailing. However, if the research is conducted again, the working model should be modified as shown in Figure 6-1, which is the theoretical implication of this thesis.

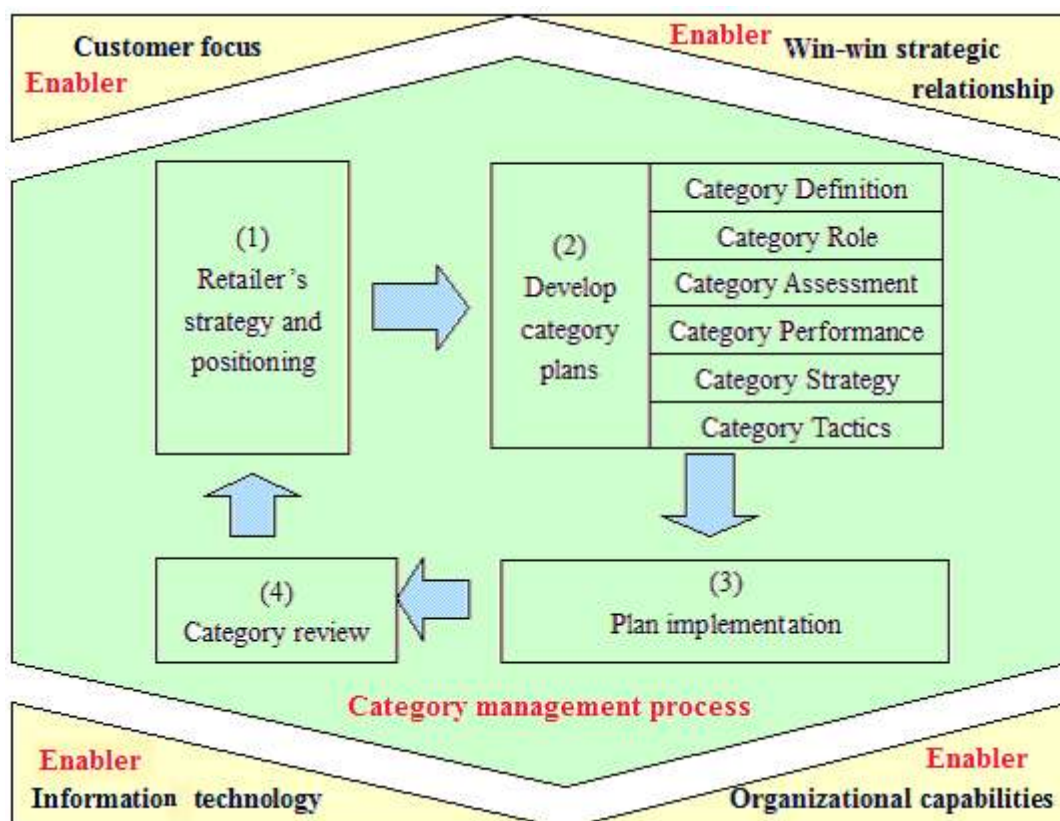


Figure 6-1 Modified working model based on findings.

Based on the barriers and the correspondent suggestions in chapter 4.3 and chapter 4.4, we have added two extra enablers in the working model, namely information technology and organizational capabilities. Here, information technology refers to the data and systems used in category management process, while organizational capabilities mean top management commitment and internal collaboration. Thus, the four enablers of category management, which are customer fo-



cus, win-win strategic relationship, information technology and organizational capabilities, support the implementation of category management process.

## **6.2 Managerial implication**

The managerial implication that can be taken from the thesis is the suggestions to barriers and challenges in Lianhua supermarket: invest IT resources, establish win-win strategic relationship, enhance top management commitment, improve internal collaboration and improve category performance measures. Although the research study is only one case study and the findings are hardly general. However, as the findings are quite well aligned with the review of previous literature, they can be reckoned as the good guidelines or valuable insights for other Chinese supermarket retailers in the aspect of implementing category management.

## **6.3 Possible future research**

This research focuses on the implementation of category management in Lianhua supermarket, but it hasn't concerned much about how category management is implemented on supplier's side, namely supplier's organizational structure for category management, suppliers' view on category management. Thus, it leaves an interest for future research.

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# Appendix

## Appendix 1: Interview questions

### 1. Background information

- Introduction of research purpose, questions. (from interviewer)
- Please describe Lianhua supermarket background, mission.
- Briefly describe how category management is implemented in Lianhua supermarket?

### 2. Retailer strategy and positioning

- Who are the target customers in your supermarket and have you reached them?
- Who is your competition for target customers?
- What opportunities exist to improve position against key competitors?

### 3. Develop category plans

- How do you conduct category definition?
- What is the category structure in your store? Present a category structure with 6 categories in your store.
- How does your store determine category roles to the 6 categories? Explain it with the above 6 categories as examples.
- How is category assessment conducted in your supermarket?
- Is there anything needs to be noticed during category assessment?
- How are category performance measures conducted in your supermarket?
- How are category strategies selected in your supermarket? Give an example.
- Explain how category tactics are conducted in your supermarket?

### 4. Plan implementation and category review

- How is plan implementation and category review carried out in the supermarket?
- Are there any barriers or challenges during plan implementation?

### 5. Category management collaboration

- How do Lianhua supermarket's suppliers and it collaborate with each other?
- Are you collaborative?
- Are there any barriers or challenges for the category management collaboration?

**Appendix 2: Sales ration of each categories in Lianhua supermarket No. X in 2009.**

Category	%
Frozen food	0,62
Drinks	15,70
Dian Xin	6,71
Roasted seeds and nuts	0,90
Condiment	0,10
Cigarette	70,30
Snacks	0,05
Food product	1,00
Canned food pickles	0,16
Cured products	0,15
Personal care	0,86
small articles of daily use	1,59
Kitchen utensils	0,02
Knitwear	0,08
Toy and stationery	0,08
Band-aid	0,02
Small electronic appliances	0,22
Refrigerated instant food and dessert	0,03
Instant drink powder	0,60
Tonic	0,62
Household detergents	0,40
Candies	0,02