

**AN EMPIRICAL ANALYSIS OF THE JOY OF PURCHASING GASHAPON AND
CUSTOMER SATISFACTION SURVEY**

Shun-Hsing Chen^{1*}, Yang-Ju Chen² and Xin-Ying Xu¹

^{1*}Department of Marketing & Distribution Management, Asia Eastern University of Science and Technology,
Taiwan

²Department of Business Administration, National Changhua University of Education, Taiwan

<http://doi.org/10.35409/IJBMER.2023.3507>

ABSTRACT

In recent years gashapon is now all the rage. It becomes trending topics in Taiwan market. This study can see gashapon not only in the gashapon store but also in front of the convenience store, shopping mall, and even in the department store. There are many people standing in front of the gashapon machines. People of all ages and sexes are raring to have a try. Where the origin of gashapon comes from? Why people so appeal to gashapon? What kind of reasons affect purchase motivation? This study relies on professional literature and in-depth discussion to confirm 15 service quality elements of consumer perception. Then used it to design a questionnaire to discuss how important of customer perception and customer satisfaction. This study collected 155 questionnaires and introduce the result in to the revised Performance Evaluation Matrix (PEM). Then consider demographic variables and compare the difference of the placement. This study found out that 2 elements in the "Maintenance Zone", 12 elements in the "Improvement Zone", and only one element in the "Priority Improvement Zone". The thing that needs to improve is the price of the gashapon. Customers think that the price is too high and expect gashapon's price could be adjusted.

Keywords: Gashapon, Purchase Motivation, Customer Satisfaction, Performance Evaluation Matrix (PEM).

1. INTRODUCTION

1.1 Research Motivation

The concept of toy capsule machines, also known as "gashapon" was introduced to Taiwan around the end of the 20th century. In the early stages of its introduction, toy capsule machines created a trend and became immensely popular. Although the initial frenzy has subsided over time, there is still a group of people who continue to consume and support toy capsules, allowing this product to survive in the Taiwanese market to this day. Before 1997, toy capsules primarily focused on manga-related themes, gradually transitioning towards classic designs. As we entered the 21st century, they evolved beyond the boundaries of animation, manga, and gaming industries, placing greater emphasis on originality and strong personal styles. This shift marked the transformation of toy capsules from collectibles to artistic pieces, aligned with "Design" and "Creativity" (Li, 2007).

In recent years, gashapons have become a popular topic in the Taiwanese market, captivating individuals of all ages and genders, creating a collecting frenzy (Darren, 2010).

Various marketing strategies have added diverse value to gashapons. Why are gashapons so appealing? How does this industry generate significant business opportunities? How are the prices of gashapons determined? What motivates consumers to purchase them? And how satisfied are consumers with their purchases? These are the research topics that this study aims to explore in-depth.

Service quality is defined as the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery (Parasuraman, Zeithaml, Malhotra, 2005). Customer satisfaction is the degree to which a customer is satisfied with a product or service (Oliver, 1997). Meanwhile, companies attach great importance to service quality and customer satisfaction as ways to respond to customer needs, secure a competitive advantage, and ensure sustainability. Loyal customers are not easily swayed by competitors' promotional strategies; they contribute to company sales and profits by frequently purchasing products or using services and spreading positive word-of-mouth. Therefore, a company with many loyal customers can maintain its competitiveness even in highly competitive situations (Anderson & Mittal, 2000). Lovelock and Wirtz (2011) defined loyal and satisfied customers as those who are willing to maintain a long-term relationship with the company and recommend its products or services to others. Satisfied customers tend to be more loyal and make repeated purchases, even if situational influences or marketing efforts attempt to prompt switching behavior (Yum & Yoo, 2023). Reichheld and Scheffer (2000) stated that loyal customers are less price sensitive, reducing the cost of attracting new customers, leading to increased profits and positive added value. Therefore, companies strive to make their regular customers increasingly loyal.

Customer satisfaction refers to an individual's emotional state and is an important marketing concept (Hult et al., 2019). Customer satisfaction is an outcome variable of service quality and plays a significant role in driving continued purchase intention. With the emergence of the internet, there have been many research studies on enhancing customer satisfaction through technological tools (Isfandyari-Moghaddam, 2014). Satisfied customers positively influence the frequency of toy capsule purchases and stimulate purchase intentions. Therefore, determining how to achieve customer satisfaction through technology is crucial (Alalwan, 2020). To attract customers to purchase gashapons, various factors such as product quality, marketing strategies, pricing, and customer service attitude will influence consumers' purchase intention. Moreover, fostering loyal customers who continue to pay attention to and make repeat purchases of gashapons is essential.

What makes gashapons appealing is the wide variety of options available. There are themed toy capsules that focus on relaxation and practicality, as well as those emphasizing environmental issues or showcasing unique Taiwan-originated designs, all of which cater to the curiosity of today's society and present new business opportunities (Lambert & Sharma, 1990). The PEM proposed by Lambert & Sharma and later revised by Chen (2011) has been used in various fields such as service quality improvement, resource allocation, and human resource configuration to achieve excellent performance. Therefore, this research utilizes the performance evaluation matrix as a tool to conduct customer satisfaction surveys in the gashapons industry, aiming to identify areas of service improvement that consumers value and need.



2. LITERATURE REVIEW

2.1 The Origin and Development of Gachapon

Toy capsules, also known as "gachapon" originated in the United States and first appeared around the 1920s. The term "gachapon" comes from the sound made when the toy capsules collide and fall. It is now a commonly used name for gachapon machines, registered by the toy manufacturer Bandai. The earliest introduction of gachapons in Japan was in 1986 when YUJIN launched them. As the focus shifted from snacks to toys, the novelty of not knowing what will come out of the capsule greatly appealed to the public. A basic gachapon set consists of an eggshell, a capsule paper, and the content inside. The capsule paper helps identify the authenticity of the gashapons. The value of gachapons lies in the different probabilities of obtaining each item in a series, motivating people to keep trying to collect a complete set, thus creating an alternative business opportunity.

In the early days, gashapons were very affordable, costing around 10 yen each. In 1973, gachapons priced at 100 yen were introduced. In recent years, the increasing variety of gashapons has led to price hikes, ranging from 200 yen to 500 yen. The following table summarizes the price differences of gachapons as compiled in this study (see Table 1).

Table 1: Price and content of Gachapon

Gachapon contents	Price	Note
	100 yen	Less popular or outdated gachapons are sold together in the same inexpensive machine.
	150 yen	These machines often contain items such as keychains and badges, which are less commonly found in regular gachapons shops and can be considered as less popular products.

	<p>200 yen</p>	<p>The most common and easily accepted price range for gachapons usually includes small figurines and ornaments.</p>
	<p>300 yen</p>	<p>On the other hand, environmentally friendly gachapons and mini gachapons have been popular in recent years and share similar pricing and styles.</p>
	<p>400 yen</p>	
	<p>500 yen</p>	<p>Gachapons with limited production and high collectible value are crafted with much greater attention to detail and paintwork compared to other gachapons.</p>

Belk (1995) pointed out that through intangible concepts, the definition of collecting, originally focused on tangible items, has expanded to include non-physical items. He views collecting as a series of psychological processes, describing it as an active, selective, and passionate process of acquiring and possessing items. These items have shifted from ordinary use and are now seen as part of a series of dissimilar objects or experiences, representing a pursuit driven by acquisitiveness, possessiveness, and materialism. Similarly, Pearce (1995) proposed a similar view regarding the relationship between objects and collectors. She believes that

collecting is a conceptual set and not about the intent or purpose of the items themselves. Instead, it involves a set of material substances created by the owners, detached from everyday life's general purposes, carrying special thoughts, emotions, time, and resources. Jensen (2001) suggested that when we shop, we are actually seeking stories, friendship, care, lifestyles, and behaviors within the products. We are purchasing emotions and nostalgia.

2.2 Performance Evaluation Matrix (PEM)

Lambert & Sharma (1990) proposed a Performance Evaluation Matrix (PEM) to determine the importance of logistics service quality factors and the company's performance on these factors. The horizontal axis uses "Performance" as the variable, while the vertical axis uses "Importance" as the variable. These two variables form the Performance Evaluation Matrix (PEM), which suggests different improvement strategies based on various positions, as shown in Figure 1. This matrix corresponds to four service strategies: priority improvement, improvement, maintenance, and reduction.

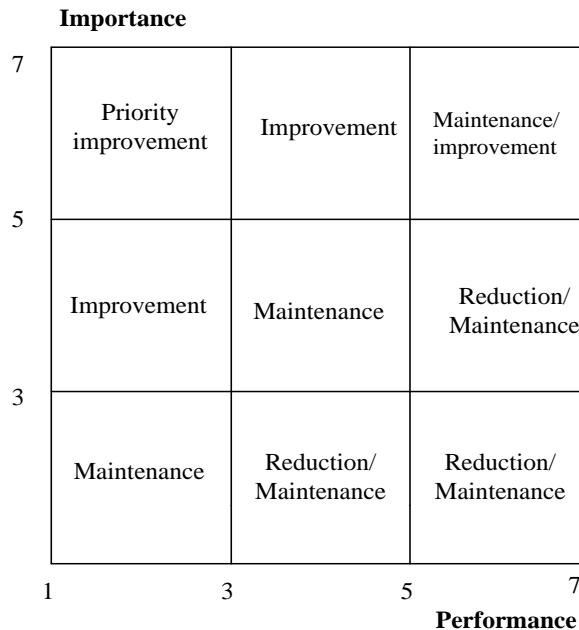


Figure 1 Performance Evaluation Matrix

Sources: Lambert & Sharma (1990)

Chen (2011) revised a new matrix, redefining the horizontal axis with "Importance" as the variable and the vertical axis with "Satisfaction" as the variable. These two variables resulted in a new service strategy revised "Performance Evaluation Matrix" (as shown in Figure 2). This matrix is divided into three service strategy regions: maintain, improvement and priority improvement. Regions 1, 2, and 4 indicate that consumer-perceived satisfaction exceeds importance, and service resources can remain unchanged. The strategy here is to "Maintain" the current service quality. Regions 3, 5, and 7 represent cases where satisfaction equals importance, indicating that the service has not exceeded user expectations. Organizations must enhance

existing service quality by allocating more resources, thus proposing an "Improvement" strategy. Regions 6, 8, and 9 signify cases where importance surpasses satisfaction, revealing consumer dissatisfaction with the businesses provided services. Therefore, businesses must actively address these issues and propose a "Priority Improvement" strategy. The service elements falling under the "Improvement" and " Priority Improvement" categories are prioritized for improvement in this study.

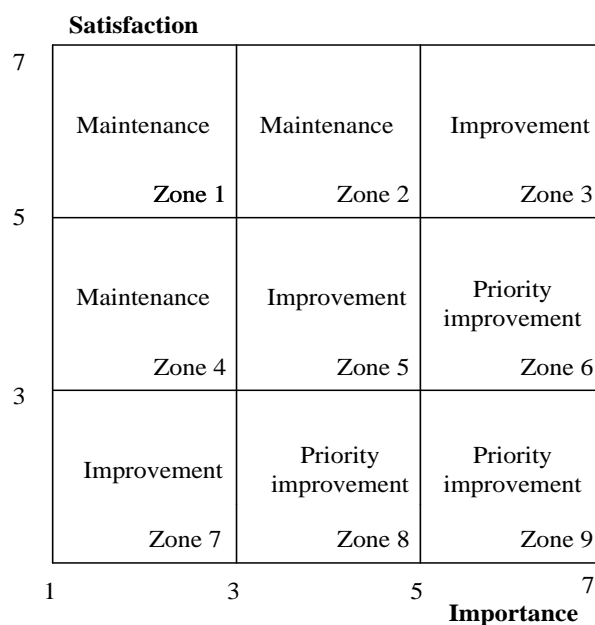


Figure 2 Revised Performance Evaluation Matrix
Sources: Chen (2011)

3. RESEARCH METHOD

3.1 Questionnaire Objects

The sampling method for this study employs purposive sampling, targeting consumers who have played or have an interest in collecting gashapon. The investigation delves into their purchasing motivations and the importance/satisfaction they associate with gashapon. This approach aligns with the research objectives and specific requirements, making efficient use of the known information from the survey sample. It is well-suited for attitudinal and opinion-based inquiries.

3.2 Questionnaire Design

The questionnaire is divided into two parts: Customer perceived importance and customer perceived satisfaction. For the investigation of customer importance/satisfaction, this study's literature review, customer discussions, and in-depth conversations identified 15 factors most influential in decision-making (quality of gashapons, price of gashapons, purchase location, variety of gashapons designs, frequency of gashapons design updates, practicality of gashapons, collectability of gashapons, origin of gashapons, therapy value of gashapons, novelty of

gashapons, content of gashapons, likability of gashapons, collaborations with cartoon characters, acquisition methods for gashapons, appearance of gashapons). These factors are used to explore customer-perceived importance and post-purchase satisfaction. To match the PEM, this questionnaire employs the Likert seven-point scale.

4. EMPIRICAL ANALYSIS

4.1 Questionnaire Distribution and Collection

The questionnaires were distributed from the end of February to the beginning of March in the year 2020. The questionnaires were collected using Google Forms, resulting in a total of 155 valid responses.

4.2 Descriptive Demographic Data

The results of the questionnaire indicate that among the respondents, there were 102 females (65.8%), 122 unmarried individuals (78.7%), 100 respondents in the age range of 21 to 30 years (64.52%), 74 students (47.7%) among the occupational categories, 115 individuals with a university education (74.2%), 79 respondents who make an average of one monthly purchase (50.9%), and 81 respondents with an average monthly purchase amount of 0 to 100 yuan (52.3%), as shown in Table 2.

Table 2 Statistical results of demographic (N=155)

Demographic	Items	Frequency	Percentage
Gender	Man	53	34.2%
	Woman	102	65.8%
Marital status	Married	33	21.3%
	Single	122	78.7%
Age	Below 20	33	21.3%
	21~30	74	47.7%
	31~40	19	12.3%
	41~50	11	7.1%
	above 51	18	11.6%
Occupation	Civil servant	31	20%
	Service personnel	40	25.8%
	Technology industry	4	2.6%
	Student	75	48.4%

	Other	5	2.8%
Education	Below high school	27	14.7%
	University/College	115	74.2%
	Above Master	13	8.4%
Average number of purchases/month	1	79	50.9%
	2~3	54	34.9%
	4~5	12	7.7%
	Above 6	10	6.5%
Average purchase amount/month (NT\$)	0~100	81	52.3%
	100~200	43	27.7%
	200~300	18	11.6%
	300~400	5	3.2%
	Above 400	8	5.2%

4.3 Customer Importance Variable Statistical Description

The descriptive analysis of customer-perceived importance is presented in Table 4. The top three most important factors are No.12, Likability of gashapons, No.1, Quality of gashapons, and No.2, Price of gashapons.

Table 4 Distribution of customer importance variables

	ME	S.D.	Order
1. Quality of gashapons	5.95	1.23	2
2. Price of gashapons	5.88	1.25	3
3. Purchase location of gashapons	4.55	1.81	13
4. Variety of gashapons designs	5.55	1.46	7
5. Frequency of gashapons design updates	5.27	1.6	11
6. Practicality of gashapons	4.43	1.65	14
7. Collectability of gashapons	5.43	1.48	10
8. Origin of gashapons	4.21	1.68	15
9. Therapy value of gashapons	5.49	1.38	8
10. Novelty of gashapons	5.57	1.41	6
11. Content of gashapons	6.19	1.08	1
12. Likability of gashapons	5.77	1.38	4
13. Collaborations with cartoon	5.48	1.48	9

characters of gashapons			
14. Acquisition methods for gashapons	4.95	1.65	12
15. Appearance of gashapons	5.68	1.42	5

4.4 Customer Satisfaction Variable Statistical Description

The descriptive analysis of customer satisfaction is shown in Table 5. The top three most satisfying factors are No.11, Content of gashapons, No.1, Quality of gashapons, and No.12, Likability of gashapons.

Table 5 Distribution of customer satisfaction variables

Items	ME	S.D.	Order
1. Quality of gashapons	5.69	1.29	2
2. Price of gashapons	5.23	1.45	11
3. Purchase location of gashapons	5.20	1.50	12
4. Variety of gashapons designs	5.49	1.33	6
5. Frequency of gashapons design updates	5.25	1.36	10
6. Practicality of gashapons	4.54	1.60	14
7. Collectability of gashapons	5.45	1.35	8
8. Origin of gashapons	4.54	1.52	15
9. Therapy value of gashapons	5.55	1.33	4
10. Novelty of gashapons	5.53	1.29	5
11. Content of gashapons	5.71	1.28	1
12. Likability of gashapons	5.61	1.34	3
13. Collaborations with cartoon characters of gashapons	5.42	1.49	9
14. Acquisition methods for gashapons	5.20	1.40	13
15. Appearance of gashapons	5.46	1.37	7

4.5 Introducing Performance Evaluation Matrix

In this study, a performance evaluation matrix is constructed using the Importance (I) and Satisfaction (S) indicators for analysis. It is found that No.2, Price of gashapons, falls under the "Priority Improvement Zone," while No.3, Purchase location of gashapons, and No.14, Acquisition methods for gashapons, fall within the "Maintenance Zone." Other items are situated in the "Improvement Zone." It is observed that the purchase location and method of obtaining capsules are generally perceived as satisfactory and can be maintained. However, in terms of the price of capsules, there is dissatisfaction among consumers, requiring active improvements. The rest of the aspects need minor enhancements, as depicted in Table 6 and Figure 3.

Table 6 Performance evaluation matrix zone

Items	Importance	Satisfaction	PEM Zone
1	5.95	5.69	Improvement
2	5.88	4.93	Priority Improvement
3	4.55	5.2	Maintenance
4	5.55	5.49	Improvement
5	5.27	5.25	Improvement
6	4.43	4.54	Improvement
7	5.43	5.45	Improvement
8	4.21	4.54	Improvement
9	5.49	5.55	Improvement
10	5.57	5.53	Improvement
11	6.19	5.71	Improvement
12	5.77	5.61	Improvement
13	5.48	5.42	Improvement
14	4.95	5.2	Maintenance
15	5.68	5.46	Improvement

Satisfaction

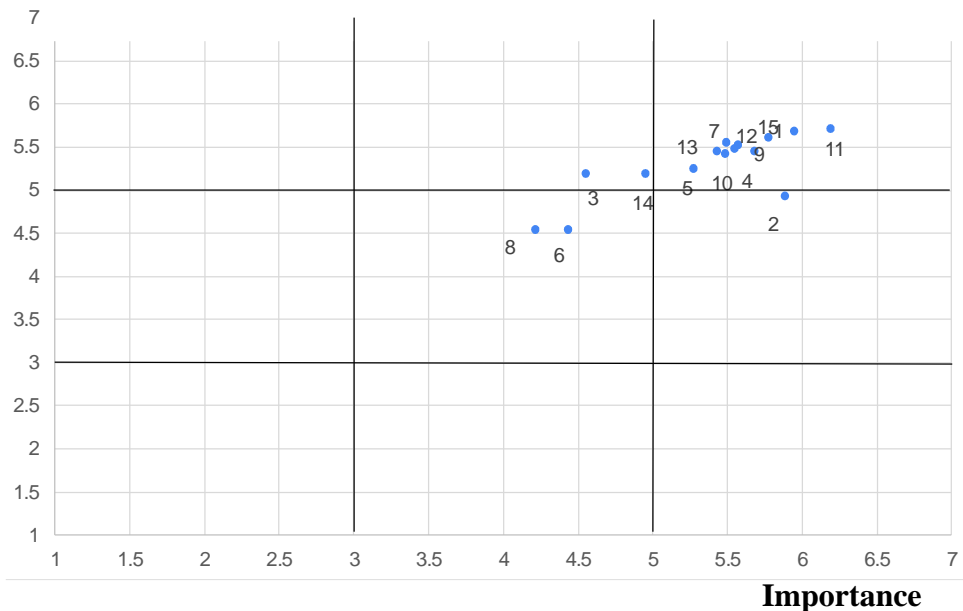


Figure 3 Performance Evaluation Matrix of this study

Research findings indicate that No.2, Price of gashapons, falls within the "Priority Improvement Zone." No.3, Purchase location of gashapons, and No.14, Acquisition methods for gashapons, are within the "Maintenance Zone." Other items are in the "Improvement Zone." This

suggests that the majority of customers are satisfied with the purchase location and method of obtaining gashapons, requiring no significant changes and can be maintained. However, the price of gashapons needs substantial improvement to enhance customer satisfaction. Other aspects are considered acceptable, needing only slight adjustments in strategy.

Factors considered by consumers when making purchases include quality, appearance, utility, price, brand, and more. Although buying gashapons primarily serves psychological purposes such as soothing the mind and collecting, this study reveals that consumers are highly concerned about the price. Paying a higher price without receiving an equivalent gashapon can result in greater disappointment than receiving a defective product. Therefore, gashapons possess a healing effect, and manufacturers could consider designing a limited quantity of unique products, which could significantly enhance consumer satisfaction.

5. CONCLUSIONS AND SUGGESTIONS

5.1 Conclusions

As society advances, consumers are becoming increasingly hard to satisfy. This phenomenon has led to the fact that today's consumers often live in a relatively dull environment. However, introducing novel and interesting elements can add a touch of excitement to life. "Gachapon" is one of the alternative products that fulfill this demand. Through the process of twisting and turning a gachapon, consumers can experience surprise and joy. Furthermore, when they collect an entire set of gachapon, it indirectly generates a sense of achievement. Such rewards have made gachapon a hobby for many people, turning them into loyal fans.

The primary audience for gachapon mostly consists of young adults aged between 21 and 30. This demographic is in the phase of seeking novelty and chasing trends. Therefore, when their friends and acquaintances discuss the uniqueness and features of gachapon, they are likely to find it intriguing and be willing to give it a try. After experiencing gachapon and achieving their desired results, they are inclined to introduce gachapon products to their friends. Despite the novelty and fun aspect of gachapon, some consumers might find it difficult to accept the relatively higher prices of higher-quality and more renowned gachapon products.

5.2 Suggestions

Based on the research findings above, the following suggestions are proposed:

1. Expand the gachapon consumer market and target audience. Manufacturers can design products that attract consumers from different age groups to broaden the gachapon market and cater to various age demographics.
2. Enhance online gachapon services. Online gachapon services can be improved to provide consumers with the same experience and convenience as physical gachapon stores, eliminating the need to visit in person.
3. Pricing strategy for gachapon. Manufacturers should price gachapon capsules according to their quality. Intricately painted or environmentally friendly capsules could be priced slightly higher, while standard capsules could follow an affordable pricing strategy to ensure consumer acceptance and purchases.
4. Commit to innovation in gachapon design. Developing novel and innovative gachapon designs can increase consumers' willingness to make purchases, ensuring the sustainable operation of the gachapon market and reducing the risk of decline.

REFERENCES

- Alalwan, A.A. (2020). Mobile food ordering apps: An empirical study of the factors affecting customer e-satisfaction and continued intention to reuse. *International Journal Informance Management*, 50, 28–44.
- Beckett, A., Hewer, P. & Howcroft, B. (2000). An exposition of consumer behavior in the financial services industry. *International Journal of Bank Marketing*, 18(1), 15-26.
- Belk, R.W. (1995). Collecting as Luxury Consumption: Effects on individuals and households. *Journal of Economic Psychology*, 16 (3), 477-490.
- Bloemer, J. & Odekerken-Schroder, G. (2002). Store satisfaction and store loyalty explained by customer and store-related factors. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 15, 68-80.
- Chen, S.H. (2011). A performance matrix for strategies to improve satisfaction among faculty members in higher education. *Quality & Quantity*, 45, 75–89.
- Fascinating Creations (2017). The Historical Story of an Egg. <http://www.52toys.com/post/1011322.html>.
- Gachapon Darren (2010). The History of Gachapon. <http://bitobi.com.tw/history.html>.
- Heskett, J.L.; Jones, T.O.; Loveman, G.W.; Sasser, W.E.; Schlesinger, L.A. (1994). Putting the service-profit chain to work. *Harvard Business Review*, 72, 164–174.
- Hult, G.; Tomas, M.; Pratyush, N.S.; Morgeson, F.V., III; Zhang, Y. (2019). Antecedents and consequences of customer satisfaction: Do they differ across online and offline purchases? *Journal Retail*, 95, 10–23.
- Isfandyari-Moghaddam, A. (2014). Customer-centric marketing strategies: Tools for building organizational performance. *Journal Consumer Marketing*, 31, 85–86.
- Jensen, R. (2000). *Consumerism in the Post-Materialistic Era*, MacGillorhill Publishing.
- Joewono, T.B., & Kubota, H. (2007). User satisfaction with paratransit in competition with motorization in Indonesia: Anticipation of future implications. *Transportation*, 33(3), 337-355.
- Kotler. P. (1994). *Marketing Management: Analysis, Planning, Implementation and Control*, 8th ed, N.J, Prentice-Hall Press.
- Lambert, D.M. & Sharma, A. (1990). A customer-based competitive analysis for logistics decisions. *International Journal of Physical Distribution and Logistics Management*, 20, 17-24.
- Li X. (2007). *Igniting the Gachapon Spirit: The Collection Journey of Cool Play's Star Xingyu*. Taipei City: If Publishing.
- Lovelock, C.H.; Wirtz, J. (2011). *Services Marketing People, Technology, Strategy*, 7th ed.; Pearson: London, UK.
- Oliver, R. (1981). Measurement and evaluation of satisfaction process, inertial selling, *Journal of Retailing*, 57(3), 25-48.
- Oliver, R.L. (1997). *Satisfaction: A Behavioral Perspective on the Consumer*; The McGraw-Hill Companies, Inc.: New York, NY, USA.
- Oliver, R.L. (1999). Whence Consumer Loyalty? *Journal Marketing*, 63, 33–44.
- Parasuraman, A.; Zeithaml, V.A.; Malhotra, A. (2005). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal Service Research*. 7, 213–233.

-
- Pearce, S. M. (1995). *On Collecting; An Investigation into Collecting in the European Tradition*. New York, Routledge.
- Reichheld, F.F.; Schefter, P. E. (2000). Loyalty: Your secret weapon on the web. *Harvard Business Review*, 78, 105–113.
- Schiffman, L.G. & Kanuk, L.L. (2004). *Consumer Behavior*, 8th Edition, Pearson Education Inc., Upper Saddle River, New Jersey: Prentice-Hall.
- Schlosser, A.E. (2003). Experiencing products in the virtual world: The role of goal and imagery in influencing attitudes versus purchase intentions. *Journal of Consumer Research*, 30(2), 184-198.
- Yum, K. & Yoo, B. (2003). The impact of service quality on customer loyalty through customer satisfaction in mobile social media. *Sustainability*, 15(14), 11214, 1-14.
- Zeithaml, V.A., Wilson, A. & Bitner, M.J. (2008), *Services Marketing*. 4th ed., New Delhi: The McGraw-Hill Companies.