# Sustainable growth for the self-employed in the retail industry based on customer equity, customer satisfaction, and loyalty

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A R T I C L E  I N F O

A B S T R A C T

In Korea, traditional retail districts face a serious situation whereby businesses in downtown areas face collapsing as local population declines: resulting in a decrease in self-employed sales and a declining local economy. Traditional retailers use ambiguous accounting and are reluctant to use credit cards, and thus, the overall reliability of their customer data is low. This paper solves this problem by applying the concept of customer equity (CE). We conducted an empirical analysis through questionnaires to identify differences in CE between traditional and new retail formats. The questionnaire consisted of questions related to CE (value equity, brand equity, relation equity), satisfaction, loyalty, and demographic characteristics. CE and satisfaction were measured on a 5-point Likert scale. A total of 400 surveys were completed, resulting in 391 usable returns for analysis in this study. In the regression analysis between CE and customer satisfaction, both old and new retail firms showed statistically significant effects. In the traditional retail industry, value equity and brand equity were statistically significant, while relation equity were not.

## 1. Introduction

Over the last 50 years smaller formats have been put under pressure both by large format, sometimes multinational, retailers and by the internet. In many countries (Murcott et al., 2013) loss of traditional local shops has created under-served markets or, worse, Food Deserts where essential provision cannot be sustained. There is a clear social welfare agenda if members of the public cannot easily access food (Hallsworth and Coca-Stefaniak, 2018) and a loss of past investment when businesses fail. So a second key agenda concerns the retailers themselves: there are benefits if the self-employed continue to be independent, and achieve sustainable growth by satisfying customers. As much as anything, such innovations safeguard past sunk costs in traditional locations. However, this sector is under-researched not least because there is no reliable way to know how much the self-employed who work in the traditional retail sector sell, or how much profit they make. Unfortunately, some of the self-employed never report their sales or net profit numbers publicly. This is because not only do they prefer to transact in cash, but they may also report figures lower than their actual sales whenever they have been investigated by the government. This paper addresses this challenge by applying the concept of customer equity (CE). As customer-oriented

marketing strategies that took hold in the 1960s were emphasized in the literature, related marketing theories and practices also received constant attention (Vavra, 1997). Recently, a customer-centered viewpoint, such as customer satisfaction and customer value, was implemented as a concept in marketing management (Bolton and Drew, 1991). That said, the concept of customer lifetime value (CLV) has attracted more attention in recent years. CLV has been discussed in many academic research articles over the past decade, and has been used as a practical tool to measure business success (Gupta et al., 2006). As an extension of the CLV concept, CE is defined as the discounted lifetime values from all customers (Rust et al., 2000). (see Figs. 1 and 2)

CE usually consists of value equity, brand equity, and relationship equity (Rust et al., 2001; Vogel et al., 2008). CE is perceived as a strategic framework that links customers and businesses and creates new sources of revenue (Lemon et al., 2001). In today's competitive environment, CE, which plays a role in determining the survival of a company, is recognized as a core strategic asset of enterprises. In other words, in this paper, CE is defined as having a central and important meaning that is necessary for the sustained growth and profit of companies, compared to concepts such as brand equity or value equity. Based on the research of Vogel et al. (2008), this study investigates the
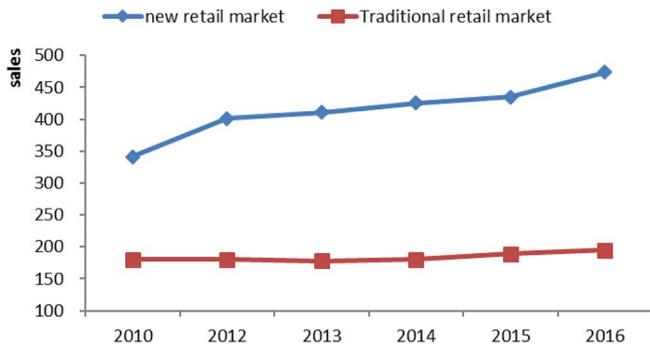
**Fig. 1.** Status of retail industry in Korea
Source: Statistics Korea (2018). http://kostat.go.kr/portal/korea.[11].

likelihood of sustainable growth for self-employed entrepreneurs by analyzing the extent of any difference in customer equity between traditional retail districts and their newer rivals. We seek to identify ways to enhance the competitiveness of the self-employed through a comparison of bilateral variables. Second, we will try to establish how the self-employed in traditional retail districts can improve CE through different variables (Jasek et al., 2018).

The novelty of this study lies in the following. First, researchers have measured CE by focusing on new retail format businesses such as online. As noted, there are good reasons why research on traditional retail businesses is relatively neglected. However, the traditional retail industry is also making great efforts to improve CE. Therefore, this study aims to make a theoretical and practical contribution to the comparative study of the old and new distribution industries, so that companies can choose a better CE model. Second, research trends show that, until recently, there were not enough studies regarding CE or customer attitude, and there were even fewer papers focusing on CE in the retail industry (Yoon and Oh, 2016). The purpose of this study is to investigate the effect of CE (brand equity, value equity, and relationship equity) on customer satisfaction and thus loyalty in the retail industry.

The theoretical and practical implications of this study are as follows. As a theoretical contribution, there is a comparative analysis between CE and service quality in a study of the self-employed in the traditional retail sector (Wang et al., 2016). This study analyses the competitive advantages and comparative disadvantages of the traditional retail market in order to identify and improve the variables that are inferior to those of large shopping malls, and, as a result, create value and improve customer equity. As a practical contribution, this study provides details of what factors should be considered by the self-employed to improve

the competitiveness of their own profit and sales through the policy of support for traditional retail markets offered by the Korean government.

## 2. Literature review

### 2.1. The current status of retail industry in Korea

In Korea, the retail industry is facing a serious imbalance due to rising numbers of large-scale retail stores, SSMs, and expansion of large-scale franchises (Yi and Gim, 2018). As a result, the government enacted a special law that led to the implementation of a regulatory system such as mandatory store closure holidays that large retailers must impose. As online sales grew rapidly, interest in customer management measures to attract and retain customers also increased throughout the distribution industry (Kim, 2012; Yim and Kim, 2017). In addition to the government's financial support for the traditional market, academia is actively conducting research on the respective retail markets (Kim et al., 2017; Oh, 2018; Agboola et al., 2018; Cho and Lee, 2016; Ha and Lee, 2011) and comparative studies in the field of consumer behaviour (Jeon and Chung, 2013; Lee, 2006; Kim and Lee, 2014). For the sustainable management of these competitive trends, the CE model is used to find components that need improvement.

### 2.2. Customer equity

According to many scholars, CE is classified as experience equity, brand equity, relationship equity, and value equity (Lemon et al., 2001; Yoon and Oh, 2016). However, this study intends to apply Lemon et al. (2001) CE concept. CE comes from value creation based on profit, cost, customers, and customer relationships (Wang et al., 2016). Value equity represents an objective appraisal of the brand, such as recognition of price, quality, and convenience. Brand equity is a subjective appraisal of the brand, such as brand awareness and attitude toward the brand. Relationship equity includes special relationship elements that link brands and customers (Rust et al., 2001). CE is a value meaning that comes out in the course of keeping lifetime relations with customers on a basis of the concept of time where a lifetime value of customer is added to present value (Blattberg and Deighton, 1996). Hogan et al. (2002) demonstrated that as CE much focus on long-term profitability in place of sales, we can expect a relationship between CE and firm value. As mentioned earlier, CE consists of three elements, and these three elements work independently or together.

Other customer equity studies have been conducted by retail type. Two studies in which the new retail format was analyzed used the dependent variables of satisfaction (Han, 2009; Oh and Jung, 2011; Kim
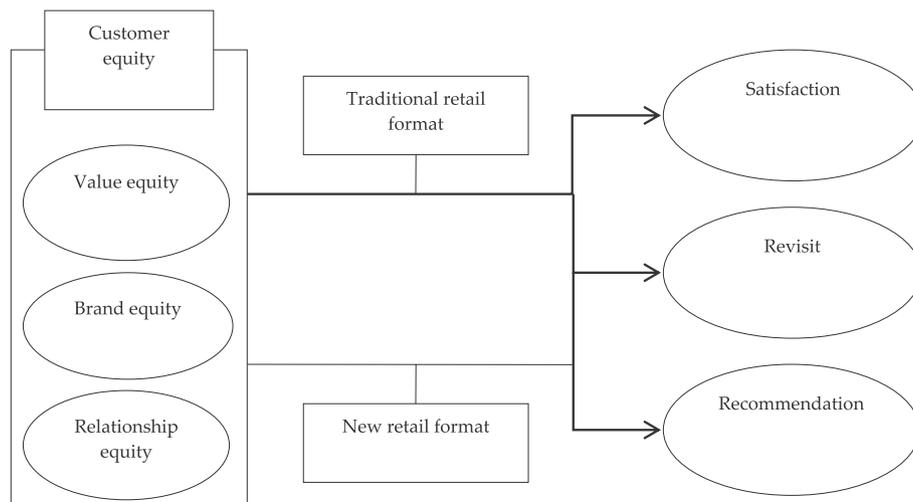


**Fig. 2.** Research model.

and Kim, 2012; Kim, 2018; Kim et al., 2019) and loyalty (Vogel et al., 2008; Swoboda et al., 2014; Yoon and Oh, 2016). In our study, we attempted to further compare the two types of retail formats based on retail distribution.

### 2.2.1. Value equity

Value is a key point between customers and companies. Very strong brand strategies and relationships are insufficient to satisfy customers when customers are not satisfied with their services and products (Wang et al., 2016). Value plays a key role in building value and maintaining close relationship with customers. Value equity is a customer's objective assessment of a brand – or a retailer's utility based on perceptions (Vogel et al., 2008). Value equity is defined as an objective assessment of a brand's utility based on consumer perceptions (Lemon et al., 2001). It is argued that the three parameters of quality, price, and convenience influence value equity. These three key levers are the basis for building long-term relationships. Lemon et al. (2001) argue that value equity reflects the relative opinions of target customers toward products and services. Value is the key elements between a customer and the firm (Wang et al., 2016). They argued that brand strategy and relationships are not enough when customers are clearly not satisfied by a firm. Lemon et al. argued that value is considered through rewards that a consumer supplies to obtain something (Lemon et al., 2001). They argue that value equity should be considered unilaterally, based on the competitiveness of the company's products and services (Lemon et al., 2001).

Some researchers have mentioned the value equity of the new retail format has a positive effect on customer satisfaction (Oh and Jung, 2011; Kim and Kim, 2013; Kim, 2018) and loyalty (Vogel et al., 2008; Yoon and Oh, 2016). Other studies have found that the value equity of the traditional retail format has a similar positive effect on customer satisfaction (Kim and Kim, 2013; Kim, 2018) and loyalty (Lee and Yoon, 2014; Wang et al., 2016).

### 2.2.2. Brand equity

Recently, there has been a growth in the number of articles attempting to conceptualize and measure brand equity (Ha et al., 2010a, b; Jara and Cliquet, 2012). Several brand equity concepts have been defined (Maltz, 1991; Aaker and Shansby, 1982; Keller, 1993). Aaker (1991) defines brand equity as having five dimensions: brand loyalty, brand awareness, brand association, perceived quality of brand (Keller, 1993), and other proprietary brand equity. Keller (1993) defines this more generally, as the result of the effect of a unique brand, stating that brand equity can be viewed as a consequence of consumer behavior, while Keller (1993) suggests that consumers should respond in a more explicit manner. In other words, brand equity is defined as differentiated brand knowledge effects on consumer responses to marketing brands. Although brand equity has attracted marketing attention for the past two to three decades, existing papers are more likely to focus on antecedents of brand equity rather than on outcomes (Chang and Liu, 2009). Brand equity, a product-centric concept, has been challenged by the customer-centered concepts of CE Blattberg et al., (2001). In recent years, research on brand equity has focused on switching costs (Biedenbach et al., 2015), logistics services (Davis et al., 2009), the hotel and restaurant industries (Nam et al., 2011), and so on. Brand equity is a critical concept for theoretical and practical reasons in brand management. From Punj and Hilyer (2004) point of view, it is related to figuring out what key factors organize brand equity. From Ha et al., 2010a,b point of view, it is essential to understand how brand equity could be strengthened to enhance the brand experience.

As such, many scholars define brand equity as a diverse concept when applied in practice. In the above paper, brand equity was measured by store awareness, favourability, and reliability. In this paper, however, we extend brand equity by adding store reputation. Previous research has also found that the brand equity of the new retail format has a positive effect on customer satisfaction (Oh and Jung, 2011) and loyalty (Vogel et al., 2008; Yoon and Oh, 2016). The brand equity of the traditional retail format also has a positive effect on customer satisfaction (Kim, 2017) and loyalty (Park, 2018).

### 2.2.3. Relationship equity

Relationship equity refers to efforts by companies to build good relationships with consumers. Relationship equity consists of the elements that build relationships and transcend value and brand equity to link consumers to brands. Rust et al. (2001) defined relationship equity as the tendency of consumers to transcend the objective or subjective evaluation of a brand and maintain a good relationship with the brand. This is because it is very important to maintain good relations with consumers, regardless of products, and if trust is lost with existing consumers, it will take great effort and money to rebuild that trust relationship. Lemon et al. (2001) point out that perfect brand equity and value equity have limitations in attracting customers, so some kind of glue is needed to further strengthen the relationship between businesses and customers. In particular, relationship equity represents this glue. Lemon et al. (2001) defined relationship equity as the propensity of customers to stick to brands beyond their subjective or objective assessments. There are several important points in relationship equity, which are loyalty programs, community-building programs, affinity programs, special recognition and treatment, and knowledge-building programs (Lemon et al., 2001). Loyalty programs refer to rewards for specific behaviors that return tangible, rather than intangible, intangible benefits to customers. Loyalty programs are described in Lemon et al. (2001). As mentioned in (Lemon et al., 2001), they have become an important marketing strategy for many companies, such as Apple or Morgan Stanley. Community-building programs form customer-firm relationships by connecting to large numbers of consumers in communities. Affinity programs refer to pursuing strong emotional connections with customers, linking customer relationships with other important things in customers' lives. Special recognition and treatment refer to programs that recognize customers for specific behaviors that lead to intangible benefits, as opposed to loyalty programs. Finally, knowledge-building programs increase relationship equity by creating structural bonds between customers and firms that deter alternative providers and relationships. Several studies have described the relationship equity of the new retail format as having a positive effect on customer equity (Kim and Kim, 2012; Kim, 2018; Kim et al., 2019) and loyalty (Vogel et al., 2008). Kim (2017) found that the relationship equity of the traditional retail format has a positive effect on customer satisfaction and customer loyalty.

### 2.3. Customer satisfaction

Customer satisfaction has been a very critical strategy for companies over the past two to three decades. In the 1990s, customer satisfaction was measured through such things as customer retention and profits, and in fact, satisfaction ratings were regarded as the ends of the strategy (Kalwani and Silk, 1982). Rust, Lemon, and Zeithaml (2004) proposed a method of calculating returns using financial accounting for marketing investments, considering the cost effectiveness of CE. Smith and Wright (2004) note that one of the most commonly used financial performance methods is to measure the percentage change in sales in recent years to show sales growth rates. Second, return on equity (ROA) is an indicator of how profitable a company is versus its total equity. This study, however, measures the effects of customer satisfaction, a nonfinancial measure that recent studies have also used. Nonfinancial measures are considered very important in situations like this where accurate sales cannot be measured.

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[1] A recent exchange rate is adopted 1(USD)=1116(KRW), sales unit = annual sales (Billion USD).

### 2.4. Customer loyalty

Customer loyalty is an important factor in enhancing the sustainability of a company through maintaining existing customers and strengthening relationships (Hallowell, 1996). To this end, companies carry out marketing activities to build and maintain relationships and create customer value. In the increasingly competitive Korean retail industry, efforts are made to recognize customer equity as a major predictor of future customer behavior, and to strengthen customer equity through management. In order to quantitatively measure these efforts, conceptual applications of customer equity and empirical analyses were conducted (Rust et al., 2004; Bolton et al., 2004; Kamakura et al., 2002; Reinartz and Kumar, 2000). A study by Yoon and Oh (2016), explored the possibility of a reliable product by identifying the impact of each element of customer asset on customer loyalty of visitors to a Korean retail store. The results of these studies are summarized as follows. In this study, in line with the research of Vogel et al. (2008) the effect of customer equity composition factors on customer loyalty (revisit, recommendation, etc.) was analyzed as an indicator of future value creation.

## 3. Research Model and methods

### 3.1. Model

The research has been conducted on the basis of the cause-and-effect relationship between customer equity, customer satisfaction (Wang et al., 2016), and customer loyalty (involving revisit intention and likelihood of recommendation). This study estimates the degree to which customer equity in the retail business affects customer satisfaction and loyalty.

Wang et al. (2016) research in traditional markets shows that value equity has a positive effect on customer satisfaction, whereas brand equity and relationship equity do not. Vogel et al. (2008) demonstrate that Rust et al. (2000) study on driving customer equity does not take into consideration the relationship between customer equity and customer loyalty. Vogel et al.'s study combines real purchase data and survey data from a do-it-yourself retail store. It suggests that value equity, relationship equity, and brand equity have a positive effect on customer loyalty.

A study by Yoon and Oh (2016) examines the differences in customer equity between Korea and China in terms of user performance. The results show that performance quality significantly affects customer loyalty in the case of large Korean markets, whereas brand quality affects customer loyalty in the case of large Chinese markets.

### 3.2. Instrumental development

This study conducted an empirical analysis through questionnaires to identify differences in CE between traditional and new retail formats. The questionnaire consisted of questions related to CE (value equity, brand equity, relation equity), satisfaction, loyalty, and also demographic characteristics. CE and satisfaction were measured on a 5-point Likert scale. Most of the studies on CE components are based on the theories presented by Rust et al. (2004, 2000). There is also a CE study (Han, 2009) that analyses how customers select stores in the distribution sector. Value equity was measured by the degree of competitiveness (1 = Strongly disagree, 5 = Strongly agree) on the price and quality of the product (Rust et al., 2000; Vogel et al., 2008; Han, 2009). Brand equity was measured by reputation (1 = Strongly disagree, 5 = Strongly agree) according to retail format perceptions (Rust et al., 2000; Vogel et al., 2008; Han, 2009). Relation equity measured the level of mileage programs and special space provisions (1 = Strongly disagree, 5 = Strongly agree) (Rust et al., 2000; Vogel et al., 2008; Han, 2009). Customer loyalty has been widely recognized as an important outcome variable in marketing (Oliver, 1999; Zeithaml and Bitner, 1996). Loyalty

intentions for both revisit and recommendation intentions were measured on a 5-point Likert scale (1 = Strongly disagree, 5 = Strongly agree) (Vogel et al., 2008; Zeithaml et al., 1996).

### 3.3. Data collection and analysis methods

The data were collected in five Korean cities (Uijeongbu City, Suncheon City, Jecheon City, Pocheon City, Chunchoen City), each of which has more than 100,000 citizens, in areas with both traditional and new retail stores. The survey used structured questionnaires from December 10 to 29, 2017, on 20 or more consumers who had used both traditional and new retail formats. The survey was conducted by one two one interviewers focusing on 20 more consumers through convenience sampling. In this case, the traditional distribution industry refers to a place operated by self-employed people who are not well equipped with modern facilities and traditional markets, and whose ability to market to customers is low. On the other hand, a new retail format business refers to a place that offers the most up-to-date facilities and marketing capabilities, such as a large shopping mall, and offers services tailored to customers. The data were collected from 40 to 120 sites in each city. A total of 400 surveys were completed, and 391 copies were used in the analysis of this study. The sample characteristics were 363 women (90.3%), and the age distribution was 40s to 142 surveys (36.3%), 50s to 107 surveys (27.4%) and 30s to 83 surveys (21.2%). The education level of the respondents was 169 or more (43.2%) than the college graduates. The occupation breakdown was as follows: there were 96 (25.0%) office workers, 127 (33.0%) blue-collar workers, and 140 (36.0%) housewives. Furthermore, 350 (89.5%) respondents were married, and the monthly average household income was about US $35,000. In this study we used SPSS 18.0 to analyze the general characteristics of the sample, to check the reliability and validity of CE by distribution industry, and to perform regression analysis between CE and satisfaction as well as CE and loyalty intention.

## 4. Results

### 4.1. Analysis of the reliability and validity of customer equity

The reliability and feasibility of CE in traditional and new retail formats was analyzed.

#### 4.1.1. Analysis of the reliability and validity of customer equity(traditional retail format)

The results of an exploratory factor analysis on CE in the traditional retail format, consisting of nine items, are as follows. The eigenvalue of each factor is over 1.0, and the factor loading is also appropriate. In addition, Cronbach's α is 0.6 or more, and reliability is secured. The explanatory power of the total variance of extracted factors was 65%.

As a result of CE typification for the traditional retail format, brand equity was derived, consisting of value equity composed of the product price and reliability items; relation equity, related to customer preference for the facilities and program benefits; and items related to consumer brand recognition.

#### 4.1.2. Analysis of the reliability and validity of customer equity(modern retail format)

The results of the exploratory factor analysis for the nine items are the same as the CE of the traditional retail format. The eigenvalue of each factor is over 1.0, and the factor loading is also appropriate. In addition, Cronbach's α is 0.6 or more, and reliability is secured. The explanatory power of the total variance of extracted factors was 62.1%.

As a result of CE typification for the modern retail format, brand equity was derived from value equity, consisting of product price and reliability items; relation equity, related to customer preference for the facilities and program benefits, and items related to consumer brand recognition.

### 4.2. Analysis result

Customer satisfaction and customer loyalty are two of the key factors in maintaining a competitive edge in a rapidly changing business environment exhibiting intense competition (Garbarino and Johnson, 1999). In addition, it is important to clarify the causal relationship between customer satisfaction and customer loyalty (Harris and Goode, 2004), because customer satisfaction increases market share and repurchase intention. In this study, the regression analysis of CE, customer satisfaction, and customer loyalty for both the traditional retail format and the new retail format was conducted in order to investigate the effect of CE on customer satisfaction and customer loyalty.

### 4.2.1. Effect analysis between customer equity and customer satisfaction

Effect analysis was performed between CE and customer satisfaction for both formats. The regression results in the traditional retail format showed CE to have a positive effect on customer satisfaction at the 1% level of significance for value equity, brand equity, and relation equity. In analyzing the effect of CE on customer satisfaction in the new retail format, all three factors showed a positive effect at the 1% significance level. These results are consistent with the results of Wang et al. (2016) who found that CE drivers such as value equity, brand equity, and relationship equity have positive effects on customer satisfaction.

### 4.2.2. Impact analysis between customer equity and customer loyalty

We examined the impact of customer equity components on customer loyalty in the distribution sector. In traditional trades, value equity and brand equity was positively affected at the 1% significance level, and relation equity was not affected. On the other hand, reluctant sales and brand equity of level customers of large shopping malls had a positive effect at the 1% significance, while value equity had a positive effect at the 5% significance level.

In the causal relationship between traditional commercial customer equity and recommendation intention, value equity and brand equity both showed a positive influence at the 1% significance level, while relation equity was not significant. In the relationship between the customer equity components and recommendation intention for large shopping malls, it was found that relation equity, value equity, and brand equity all had a positive effect at the 1% significance level.

### 4.2.3. Distribution business type-specific customer equity and customer satisfaction

The comparison of CE components by retail industry was made by comparing the size of the coefficients between the two models. First, in relation to satisfaction in traditional retail formats the relation equity factor had the lowest effect. Second, the value equity factor had the greatest effect. Finally, the brand equity factor was the second most important factor. In the new retail format, value equity is a less important factor in customer satisfaction when compared to the traditional format. It is estimated that the order of importance is value equity, then brand equity and relation equity (Han, 2009). These results show that brand equity factors have the greatest effect on satisfaction in both retailer environments. In other words, customers who have difficult needs find that brand equity is very important when choosing a product. These results are in line with the assertion that brand equity is very important for retailers, as some researchers have argued, especially for financial performance (Aaker, 1991; Swoboda et al., 2016).

On the other hand, quality, an element of value equity, acts as a leading variable in satisfaction (Wang et al., 2016). In the traditional retail format, value equity is composed of price and quality items, and it is the second most important factor behind brand equity. The results of this study are as follows. First, the value equity item in the traditional retail district, i.e., the customer's satisfaction with the quality and price of the commodity, was shown in Kim (2010) and Kim and Kim (2012). In the case of large shopping malls, factors related to the relation equity, such as mileage system and provision of tailor-made rest spaces, are

important (Kim and Kim, 2012). The application of the components to the situation can be changed when constructing CE (Rust et al., 2004). Therefore, it is necessary to establish marketing strategies by building and utilizing CE by distribution industry.

### 4.2.4. Customer equity and customer loyalty by distribution business type

In order to understand the relationship between customer equity and loyalty, the following results were derived for the revisit intention and recommendation intention. First, the customer equity component that influences re-visit intent appears to be affected by brand equity and value equity in the traditional trade, while relation equity has no statistically significant effect (Cho and Lee, 2018). The customer equity factors affecting customers' visits to large shopping malls are brand equity (Yoon and Oh, 2016), relation equity (Vogel et al., 2008), and value equity (Yoon and Oh, 2016). Next, the customer equity factor affecting recommendation intention has the largest effect on brand equity, followed by value equity, while the relation equity had no effect on recommendation intention. In the case of large shopping malls, it is estimated that value equity, brand equity, and relation equity are influenced, in that order of importance (see Tables 1–5).

## 5. Conclusions

### 5. 1. Discussion

CE is an important factor that companies must consider in order to improve their bottom line and achieve sustainable growth. Improving CE is directly related to the ability to sustain competitive advantage (Rust et al., 2001). From this point of view, it means that self-employed people - as essentially the presidents of their individual companies - can improve their competitiveness and achieve sustainable growth by improving CE. The main reason is that CE is a very important tool to connect customers and businesses (Simons, 2001).. Therefore, whether self-employed people in the traditional retailing business can sustain their growth by enhancing their competitiveness when they carry out business was analyzed, considering more variables through a comparison study between the traditional and new retailing businesses. The main results discussed above are summarized as follows. In the regression analysis between CE and customer satisfaction, both old and new retail firms showed statistically significant effects. Value equity, brand equity and relation equity, which constitute CE, mean that customer satisfaction is very important in the retail industry and that sustainable growth can be achieved in relation to these values.

The study also analyzed the effect between CE and customer loyalty. For this purpose, customers who visited two places were analyzed. In the traditional retail industry, value equity and brand equity were

**Table 1**
Results of the factorial analysis of the traditional retail format.

| | Factor | | |
| --- | --- | --- | --- |
| | Value equity | Brand equity | Relation equity |
| Cheaper commodity prices | .758[a] | | |
| Cheaper food prices | .758 | | |
| High confidence in the quality of industrial products | .654 | | |
| High confidence in food quality | .650 | | |
| The cultural center is well-equipped | | | .821 |
| There are various resting facilities | | | .721 |
| Coupon and point system is useful | | | .579 |
| Store reputation is high | | .877 | |
| High brand awareness | | .854 | |
| Eigenvalue | 3.253 | 1.151 | 1.448 |
| Explained variation (accumulated %) | 36.148 | 48.940 | 65.025 |
| Cronbach's α | .704 | .896 | .610 |

[a] Factor loading.

**Table 2**
Results of the factorial analysis of the new retail format.

| | Factor | | |
| --- | --- | --- | --- |
| | Value equity | Brand equity | Relation equity |
| Cheaper commodity prices | .707 | | |
| Cheaper food prices | .723 | | |
| High confidence in the quality of industrial products | .574 | | |
| High confidence in food quality | .653 | | |
| The cultural center is well-equipped | | | .798 |
| There are various resting facilities | | | .821 |
| Coupon and point system is useful | | | .616 |
| Store reputation is high | | .874 | |
| High brand awareness | | .823 | |
| Eigenvalue | 1.339 | 1.027 | 3.225 |
| Explained variation (accumulated %) | 14.874 | 26.285 | 62.122 |
| Cronbach's α | .622 | .792 | .698 |

**Table 3**
Result of the model analysis of customer satisfaction.

| | B | S/E | β | t-value | Tolerance | VIF |
| --- | --- | --- | --- | --- | --- | --- |
| Constant | 1.143 | 0.183 | | 6.256* | | |
| Value equity | 0.289 | 0.056 | 0.235 | 5.168* | 0.804 | 1.244 |
| Brand equity | 0.321 | 0.038 | 0.398 | 8.555* | 0.767 | 1.303 |
| Relation equity | 0.311 | 0.107 | 0.125 | 2.890* | 0.886 | 1.128 |

$R^2=0.356$, F=71.294*, Dependent variable = traditional market customer satisfaction

| | B | S/E | β | t-value | Tolerance | VIF |
| --- | --- | --- | --- | --- | --- | --- |
| Constant | 1.198 | 0.245 | | 4.884* | | |
| Relation equity | 0.143 | 0.052 | 0.137 | 2.737* | 0.769 | 1.300 |
| Value equity | 0.158 | 0.056 | 0.134 | 2.822* | 0.849 | 1.178 |
| Brand equity | 0.387 | 0.054 | 0.361 | 7.198* | 0.767 | 1.303 |

$R^2=0.255$, F=44.060*, Dependent variable = large store customer satisfaction

*: $p < 0.01$.

**Table 4**
Results of the model analysis of revisit intention.

| | B | S/E | β | t-value | Tolerance | VIF |
| --- | --- | --- | --- | --- | --- | --- |
| Constant | 0.920 | 0.233 | | 3.954** | | |
| Value equity | 0.426 | 0.071 | 0.281 | 5.995** | 0.804 | 1.244 |
| Brand equityrowhead | 0.347 | 0.048 | 0.348 | 7.250** | 0.767 | 1.303 |
| Relation equity | 0.241 | 0.137 | 0.079 | 1.763 | 0.886 | 1.128 |

$R^2=0.318$, F=60.033*, Dependent variable = traditional market customer revisit intention

| | B | S/E | β | t-value | Tolerance | VIF |
| --- | --- | --- | --- | --- | --- | --- |
| Constant | 1.345 | 0.288 | | 4.671** | | |
| Relation equity | 0.194 | 0.061 | 0.165 | 3.168** | 0.769 | 1.300 |
| Value equity | 0.161 | 0.066 | 0.121 | 2.448* | 0.849 | 1.178 |
| Brand equity | 0.335 | 0.063 | 0.277 | 5.310** | 0.767 | 1.303 |

$R^2=0.194$, F=31.037*, Dependent variable = Large store customer revisit intention

*: $p < 0.05$, **: $p < 0.01$.

**Table 5**
Results of the model analysis of recommendation intention.

| | B | S/E | β | t-value | Tolerance | VIF |
| --- | --- | --- | --- | --- | --- | --- |
| Constant | 0.867 | 0.217 | | 4.003* | | |
| Value equity | 0.436 | 0.066 | 0.310 | 6.580* | 0.804 | 1.244 |
| Brand equity | 0.305 | 0.045 | 0.330 | 6.851* | 0.767 | 1.303 |
| Relation equity | 0.115 | 0.127 | 0.040 | 0.900 | 0.886 | 1.128 |

$R^2=0.309$, F=57.785*, Dependent variable = traditional market customer recommendation

| | B | S/E | β | t-value | Tolerance | VIF |
| --- | --- | --- | --- | --- | --- | --- |
| Constant | 0.293 | 0.279 | | 1.052 | | |
| Relation equity | 0.257 | 0.059 | 0.212 | 4.321* | 0.769 | 1.300 |
| Value equity | 0.333 | 0.064 | 0.245 | 5.243* | 0.849 | 1.178 |
| Brand equity | 0.305 | 0.061 | 0.245 | 4.980* | 0.767 | 1.303 |

$R^2=0.284$, F=51.167*, Dependent variable = large store customer recommendation intention

*: $p < 0.01$.

where shopping facilities and convenience facilities are well equipped, like a large shopping mall, and where the price and quality of products are excellent, customers are more likely to visit again due to their high reliability. On the other hand, in the case of traditional retailers, value equity and brand equity had a statistically significant effect on the relationship between customer equity and recommendation intention, but relation equity did not. The reason for this is that customers who visit the traditional retail market do not find it attractive, because the rest facilities are limited due to space limitations, and the coupon and point programs are not diversified. On the other hand, in the case of neo-retailing, all relation equity, value equity, and brand equity have a statistically significant effect, which means that customers prefer large shopping malls with facilities, customer attraction programs, and cultural facilities. It is understood that there is a sufficient basis for doing so.

The following conclusions were reached through a comparative analysis between CE and customer satisfaction by distribution industry. In the customer satisfaction comparison, brand equity was considered to be most important in the traditional retail industry, followed by value equity and relation equity. On the other hand, large-scale shopping mall customers, who are in the new retail formats business, placed the most importance on brand equity and regarded relation equity as second and value equity as last in order of importance. We found that customers visit stores to find out their brand reputation when they are looking for a retailer. In other words, the reputation of the store or the brand recognition of the store should be high, which indicates that the customer satisfaction is high regardless of the distribution type. Finally, to understand the influence between CE and customer loyalty by distribution industry, the revisit intention and recommendation intention were examined. The customer equity component, which affects customer revisit intention, is influenced by the brand equity and the value equity in the traditional distribution industry, while the relation equity is not statistically significant. In the case of new retail formats businesses, customer equity factors affecting revisit were brand equity, relation equity, and value equity. The main reasons for this are that, traditionally, merchandise quality and price are perceived as important factors, but satisfaction with relation equity is not.

This seems to be due to the lack of implementation of mileage programs or systematic customer care management programs in traditional commercial districts. In the case of large shopping malls, customer preference programs seem to play an important role in promoting revisits, and product quality and price factors are less important than

statistically significant, while relation equity were not. This seems to be due to the fact that convenience facilities and rest facilities, among internal facilities, were not installed in line with customers' expectations. On the other hand, the value of value equity and brand equity in the traditional retail market appears to be statistically significant because of the high reliability of loyal customers. Customers looking for new retail formats services had a statistically significant impact on all inquiries, including relation equity, brand equity, and value equity. This is because

relation equity elements. Second, brand equity had the greatest influence on recommendation intention, while relation equity had no effect on recommendation intention. Next, value equity was affected. In the case of new retail formats businesses, value equity, brand equity, and relation equity were influenced, in that order of importance.

The recommendation intentions of others in traditional commercial markets such as traditional retail markets seem to prize value equity (product quality and price factor) as well as revisit inquiries. On the other hand, consumer perceptions were not significantly affected. Brand equity and shopping mall brand equity and value equity were the same, while the relation equity component had the lowest perception. This suggests that brand recognition, trust, and product (quality, price) elements are the most important factors for recommending a large shopping mall to others, and that customer preference programs are relatively less important.

The factors that influenced CE in the past were analyzed. The theoretical and practical contributions obtained from this study are as follows. First, in the analysis of customer satisfaction between the traditional and new retail markets, which are different from each other in their theoretical contributions, customers in both retail markets placed importance on brand equity (Han, 2009; Lee and Yoon, 2014; Cho and Lee, 2018). Because of differences in convenience facilities and marketing capabilities between the two distribution centers, customers with high loyalty to the distribution industry were considered to be more important. Surprisingly, it was found that brand equity is the most important factor in the satisfaction of both types of retail customers.

The second theoretical contribution is that CE has a different impact on customer satisfaction and customer loyalty. We found that in the traditional formats, in contrast to previous studies (Park, 2018) relationship equity was not statistically significant for either revisit inquiry or recommendation intention (Cho and Lee, 2018); only brand and value equity were regarded as important.

On the other hand, brand, relationship, and value equity were all important in the new retail formats businesses. This difference can be seen as the customers are not important, because the structure of a location is limited by space constraints and marketing ability. Therefore, the self-employed in traditional retailers need to be able to improve relation equity for sustainable growth. In other words, it is necessary to analyze whether new retail formats businesses have a significant influence on customers' intention to return and recommendation intention from customers in all aspects, such as brand, value, and relation equity (Yoon and Oh, 2016; Vogel et al., 2008).

The practical contribution of this paper is as follows. First, in this paper, how consumers are effectively ignored was analyzed through the lack of information on traditional retailers who are the heart of self-employed workers, through a comparative analysis between traditional and new retailers. Thus, in the analysis between CE and customer loyalty, traditional retailers should pay attention to relation equity in order to improve the inquiry and recommendation intention of consumers. In other words, it is necessary to install convenience facilities, such as resting facilities, and actively develop customer response programs, such as various coupon schemes. However, realistically, unless locations groups of smaller retailers can collaborate, it may be difficult to achieve the size and volume needed to compete with the more powerful versions of such schemes. Second, it was found that brand equity is the most important factor in customer satisfaction. In a situation where department stores and large shopping malls have already stagnated, traditional market self-employed workers should try to increase the value of their brand equity. This is because most consumers indicate that, in terms of satisfaction, brand equity is more important than value equity and relation equity, regardless of the type of retail industry.

### 5.2. Limitations and implications of research

This study has the following limitations. This paper has applied CE

theory to the retail distribution field and has contributed empirically to theoretical expansion, but it still has limitations. In this paper, there are several fields, such as large-scale shopping malls, convenience stores, and online shopping malls, and it analyzed only two. Second, Nam et al. (2011) pointed out that the results of this paper cannot represent the entire distribution industry, due to the limitations of the number of survey respondents. Therefore, in future research, it is necessary to set up a sample that can represent the whole nation, and the entire distribution industry, by expanding the survey target area and conducting research. In that case, research results that are representative of the whole nation and the whole distribution industry can be produced, and it would be very helpful for the follow-up research. What the conclusions is that, the next studies are necessary to incorporate different retail stores such as department store or convenience store to access the relative levels of emotional attachment or commitment of customer, which helps to encourage very long-term relationship and sustainable patronage in retailing. In future, this study should be replicated in developing countries, especially those seeking to enhance their competitiveness and those that have seen their traditional distribution districts becoming less vibrant. Future research should also consider modifying the study to examine variables other than those used in our study (i.e., value equity, brand equity, and relationship equity), such as X, Y, or Z. Along with our findings, this future research would be of great help in promoting traditional distribution districts.

### Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jretconser.2019.101963.

### References

Aaker, D.A., 1991. Managing Brand Equity. The Free Press, New York. USA.

Aaker, D.A., Shansby, J.G., 1982. Positioning your product. Bus. Horiz. 25, 56–62. May-June.

Agboola, O.P., Azizul, M.F., Rasidi, M.H., Said, I., 2018. The cultural sustainability of traditional market place in Africa: a new research agenda. J. Rural Stud. 62, 87–106.

Blattberg, R., Deighton, J., 1996. Manage marketing by the consumer equity test. Harv. Bus. Rev. 74, 136–145.

Blattberg, R., Getz, G., Jacquelyn, S., 2001. Customer Equity: Building and Managing Relationship as Valuable Assets. Harvard Business School Press, Boston. USA.

Biedenbach, G., Bengtsson, M., Marell, A., 2015. Brand equity, satisfaction, and switching costs: an examination of effects in the business-to-business. Market. Intell. Plan. 33 (2), 164–178.

Bolton, R.N., Drew, J., 1991. A longitudinal analysis of the impact of service changes on customer attitudes. J. Mark. 55, 1–9.

Bolton, R., Lemon, K., Verhoef, P.C., 2004. The theoretical underpinnings of customer asset management: a framework and propositions for future research. J. Acad. Mark. Sci. 32 (3), 271–293.

Chang, H., Liu, Y., 2009. The impact of brand equity on brand preference and purchase intentions in the service industries. Serv. Ind. J. 29 (12), 1687–1706.

Cho, D.W., Lee, S.K., 2018. A study on the structural relationship influence among traditional market regeneration, tourist attractiveness, satisfaction and behavioral intention. Korea Local Adm. Rev. 32 (3), 139–164.

Cho, W.H., Lee, Y.J., 2016. The relationship among service quality, customer satisfaction and revisit intention in food court - focusing a large discount store -. Culin. Sci. Hosp. Res. 22 (2), 252–269.

Davis, D., Golicic, S., Marquardt, A., 2009. Measuring brand equity for logistics services. Int. J. Logist. Manag. 20 (2), 201–212.

Garbarino, E., Johnson, M., 1999. The different roles of satisfaction, trust, and commitment in customer relationships. J. Mark. 63 (2), 70–87.

Gupta, S., Hanssens, D., Hardie, B., Kahn, W., Kumar, V., Lin, N., Ravishanker, N., Sriram, S., 2006. Modeling customer lifetime value. J. Serv. Res. 9 (2), 139–155.

Ha, H., Janda, S., Muthaly, S., 2010. Development of brand equity: evaluation of four alternative models. Serv. Ind. J. 30 (6), 911–928.

Ha, D.Y., Lee, G.E., 2011. A study on the store choice and customer satisfaction by large discount store user based on lifestyle types. J. Bus. Econ. 34 (2), 95–130.

Ha, H.Y., Janda, S., Muthaly, S., 2010. Development of brand equity: evaluation of four alternative models. Serv. Ind. J. 30 (6), 911–918.

Hallowell, R., 1996. The relationship of customer satisfaction, customer loyalty and profitability: an empirical study. Int. J. Serv. Ind. Manag. 7 (4), 27–42.

Hallsworth, A., Coca-Stefaniak, A., 2018. National High Street retail and town centre policy at a crossroads in England and Wales. Cities 79, 134–140.

Han, S.S., 2009. A study on customer equity and store choice using stochastic model. Rev. Bus. Hist. 24 (4), 203–224.

Harris, L., Goode, M., 2004. The four levels of loyalty and the pivotal role of trust: a study of online service dynamics. J. Retail. 80 (2), 139–158.

Hogan, J.E., Lehmann, D.R., Merino, M., Srivastava, R.K., Thomas, J.S., Verhoef, P.C., 2002. Linking customer assets to financial performance. J. Serv. Res. 5 (1), 26–38.

Jara, M., Cliquet, G., 2012. Retail brand equity: conceptualization and measurement. J. Retail. Consum. Serv. 19 (1), 140–149.

Jasek, P., Vrana, L., Sperkova, L., Smutny, Z., Kobulsky, M., 2018. Modeling and application of customer lifetime value in online retail. Informatics 5 (2). https://doi.org/10.3390/informacics5010002.

Jeon, C.J., Chung, C.M., 2013. A study on the sales of Large-scale Discount store depending on the business environment factors of traditional markets. J. Resid. Environ. Inst. Korea 11 (1), 235–245.

Kamakura, W., Mittal, V., Rosa, F., Mazzon, J., 2002. Assessing the service profit chain. Mark. Sci. 21 (3), 294–317.

Kalwani, M., Silk, A., 1982. On the reliability and predictive validity of purchase intention measures. Mark. Sci. 1 (3), 243–286.

Keller, K.L., 1993. Conceptualizing, measuring and managing customer-based brand equity. J. Mark. 57 (1), 1–22.

Kim, C.H., Jeong, S.,O., Jung, Y.S., 2017. A study on the effect of social value of traditional market on satisfaction, loyalty and local attachment. J. Distrib. Sci. 15 (2), 59–68.

Kim, H., 2010. Modeling demand for traditional market-Focused on selection attributes and lifestyle-. J. Korean Reg. Sci. Assoc. 26 (3), 25–39.

Kim, H.Y., 2017. Analysis of visitor characteristics at a traditional market as a tourism destination. Int. J. Tour. Hosp. Res. 31 (5), 49–59.

Kim, H., Kim, H.B., 2012. Difference of purchasing behavior by types of retail store and importance-performance analysis market selection attributes; focused on improvement of traditional market competitiveness. J. Korea Contents Assoc. 12 (9), 311–324.

Kim, J.W., Lee, T.J., 2014. Comparison of location and customer characteristics of the traditional markets and the large discount stores in Wonju and its policy implications. J. Reg. Stud. Dev. 23 (2), 319–355.

Kim, S.H., 2012. A study on the impact of customer equity on customer loyalty in the Korean retail industry: mediation of customer satisfaction and switching costs. J. Distrib. Sci. 10 (11), 79–88.

Kim, W., Kim, H., 2013. Regional development strategy for increasing cultural tourism business in South Korea. Asia Pac. J. Tourism Res. 18 (6), 534–548.

Kim, W., Hallsworth, A., Kim, H., 2019. On being local and being successful in Korea: tesco and E-mart. Area 51 (3), 389–608.

Kim, Y.P., 2018. A comparative study for selection attributes of traditional market and mega market in Gangwon province. J. Tour. Leis. Res. 30 (11), 61–73.

Lee, D.S., 2006. Consumers' choice among different types of retailing stores - emphasis on large scale discount stores and classical small size retailing stores. Korean East W. Econ. Stud. 17, 35–57.

Lee, S.K., Yoon, S.N., 2014. A study of tourism motivation, satisfaction and behavioral intention by traditional market visitors. Tourism Res. 39 (2), 87–107.

Lemon, K., Rust, R., Zeithaml, V., 2001. What drives customer equity. Mark. Manag. 10 (1), 20–25.

Maltz, E., 1991. Managing Brand Equity: A Conference Summary; Report #99-110. Marketing Science Institute, Cambridge, MA.

Murcott, A., Belasco, W., Jackson, P., 2013. The Handbook of Food Research. Bloomsbury Academic, London.

Nam, J.H., Ekinci, Y., Whyatt, G., 2011. Brand equity, brand loyalty and consumer satisfaction. Ann. Tourism Res. 38 (3), 1009–1030.

Oh, M.J., 2018. Effect relationship between tourism attractiveness, perceived value, attitude, and behavioral intention of a cultural tourism-oriented traditional market place: focused on the moderating effect of visiting experience. Int. J. Tour. Hosp. Res. 32 (3), 81–96.

Oh, Y.H., Jung, Y.T., 2011. A study on the effects of store choice criteria of mass merchandisers on store loyalty with customer emotions as moderating variables. Asia Pac. J. Bus. Ventur. Entrep. 6 (3), 147–175.

Oliver, R., 1999. Whence consumer loyalty. J. Mark. 63, 33–44.

Park, Y.J., 2018. A study on the effect of traditional market visitors' experiential value on place attachment and behavioral intention. Event Convetion Res. 14 (1), 137–156.

Punj, G.N., Hilyer, C.L., 2004. A cognitive model of customer-based brand equity for frequently purchased products: conceptual framework and empirical results. J. Consum. Psychol. 14 (1–2), 134-131.

Reinartz, W., Kumar, V., 2000. On the profitability of long-life customers in a noncontractual setting: an empirical investigation and implications for marketing. J. Mark. 64 (4), 17–35.

Rust, R., Lemon, K., Zeithaml, V., 2001. Where should the next marketing dollar go? Mark. Manag. 10 (3), 25–28.

Rust, R., Lemon, K., Zeithaml, V., 2004. Return on marketing: using customer equity to focus marketing strategy. J. Mark. 68 (1), 109–127.

Rust, R., Valarie, A., Zeithaml, V., Lemon, K., 2000. Driving Customer Equity, How Customer Lifetime Value Is Reshaping Corporate Strategy. The Free Press, New York. USA.

Simons, R., 2001. Performance Measurement & Control System for Implementing Strategy. Upper Saddle River, NJ: Prentice Hall: USA.

Smith, R., Wright, W., 2004. Determinants of customer loyalty and financial performance. J. Manag. Account. Res. 16 (1), 183–205.

Swoboda, B., Berg, B., Dabija, D.C., 2014. International transfer and perception of retail formats-A comparison study in Germany and Romania. Int. Mark. Rev. 31 (2), 155–180.

Swoboda, B., Weindel, J., Hälsig, F., 2016. Predictors and effects of retail brand equity- a cross-sectoral analysis. J. Retail. Consum. Serv. 31, 265–276.

Vavra, T.G., 1997. Improving Your Measurement of Customer Satisfaction. ASQC Quality Press, Milwaukee. USA.

Vogel, V., Evanschitzky, H., Ramaseshan, B., 2008. Customer equity drivers and future sales. J. Mark. 72 (6), 98–108.

Wang, H., Kim, K., Ko, E., Liu, H., 2016. Relationship between service quality and customer equity in traditional markets. J. Bus. Res. 69 (9), 3827–3834.

Yi, Y.M., Gim, T.H., 2018. What makes an old market sustainable? An empirical analysis on the economic and leisure performances of traditional retail markets in Seoul. Sustainability 10, 1779. https://doi.org/10.3390/su10061779.

Yim, J.B., Kim, D.J., 2017. A study on the influencing factors on the activation of traditional market. J. Policy Dev. 17, 1–28.

Yoon, S., Oh, J.A., 2016. Cross-national validation of a new retail customer equity model. Int. J. Consum. Stud. 40 (6), 652–664.

Zeithaml, V., Berry, L., Parasuraman, A., 1996. The behavioral consequences of service quality. J. Mark. 60 (2), 31–46.

Zeithaml, V., Bitner, M., 1996. Services Marketing. McGraw-Hill, N.Y. USA.