# The Negative Impact Study on the Information of the Large Discount Retailers*

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## Abstract

**Purpose** – This study aims to find out what impacts large retailers' behaviors appearing when they promote the strengthening of their market dominating power in the trade relations with small and medium suppliers or in the market can have on consumers.

**Research design, data, methodology** − This study analyzed negative information (news) on large retailers (Lotte Mart, E-Mart and Homeplus) based on the monthly data over the past five years from 2008 to 2012 and also analyzed the correlation between dependent variables that are likely to affect sales through large retailer economic index,

**Results** − This study conducted a correlation analysis on the time lag of the factors that have an impact on the negative information and sales of large retailers in order to analyze how consumers respond to the choice of large retailers' store (store sales) when they perceived negative information about the unethical behaviors of large retailers.

**Conclusions** - Unfair and negative information on large retailers appeared significant for the hypothesis that sales will be affected by the image of large retailers and change of consumer attitudes.

**Keywords**: Ethical Management, Corporate Ethics, Negative Information, Time Series Analysis.

**JEL Classifications:** D12, D30, Q13, Q18.

## 1. Introduction

### 1.1. Background and Objectives of the Study

Corporate ethical management is one of the important business activities to develop new values such as promoting image, strengthening market competitiveness and improving organizational structure, and is being recognized as an important survival strategy in competitive markets. Korean companies have had a lot of interest in ethical management and ethical education since the early 2000s, investing a lot of money and effort. However, it can be said that most of them have mainly depended on the formal method of "showing".

The way for formal ethical management that has been taken by Korean companies could be accepted without any major problems during the period of growth with a lot of demands. However, it has caused a lot of problems with trade relations in the era of competition like today when supply has increased.

Due to such a problem of 'Gap (the dominant)-Eul (the subjugated)' relations, the demand for the ethical management of the companies in each social hierarchy has been more strongly emphasized. In particular, consumers' demand is getting stronger, which is circumstantial evidence that the number of consumers demanding ethical responsibility in a more aggressive way beyond the strengthening of wise consumption consciousness and individual-oriented consumerism is increasing.

This study intends to investigate the impact of the fairness and ethical management in the trade and competitive relations between retailers on the consumers' store choice and its relationship and derive the implications for the ethical management of retailers through this.

## 2. Retail Industry and Ethical Management

### 2.1. Characteristics of Retail Industry

The recent retail industry is characterized by the irrational consumption caused by the reduced sales and accelerated market exit of small and medium retailers, increased market dominating power and unfair trade of the hypermarkets using their buying power, and impulse buying by excessive competitions and the increased financial cost of social conflict.

#### 2.1.1. Concept of Ethical Management

It can be seen that the core concept of ethical management

is moral and normative, and that it is concluded in the relation of coexistence and communication with stakeholders by making decisions for sustainable development.

### 2.1.2. Types of Ethical Management

While laws have the meaning of "not allowed not to do", ethics and morality have the meaning of "must do". However, the ethical management of a company can be classified into two categories based on the characteristics of the behavior.

One is normative business ethics and the other is technical business ethics.

Normative business ethics is a legal factor. The Fair Trade Act, the Consumer Protection Ac and other civil and criminal laws are included.

Technical business ethics is mainly focused on the decision-making associated with the CEO's attitude and ethical values of business management. Organizational behaviors and management theorists fall under this.

## 2.2. Ethical Management Status of Large Retailers

With the changes in international environment these days, the importance of the cooperation between large companies and small and medium companies has become more emphasized. However, the current of cooperation between large companies and small and medium companies has been estimated to fall short of the win-win relations. In particular, the knowledge-based innovation-driven industries that require a huge cost are very insufficient in terms of the strategic partners with large companies.

### 2.2.1. Vertical Conflict

Vertical conflict refers to the conflict arising between members of different steps in the retailing channel (wholesalers vs. retailers, manufacturers vs. wholesalers). This conflict arises due to each other's different goal, lack of each other's understanding and error in mutual communication.

### 2.2.2. Horizontal Conflict

Horizontal conflict refers to the conflict arising between members of the same steps in the retailing channel (wholesalers vs. wholesalers, retailers vs. retailers). This conflict may arise from the retail companies of different industries dealing with products of the same category. For example, it applies to case where discount stores, department stores and supermarkets dealing with the same products compete with each other.

## 3. Unethical Corporate Information and Consumers' General Preference

## 3.1. Consumers Behavior in Accordance with Negative Information Recognition

### 3.1.1. Negative Information and Consumer Response

Negative information about a company is more diffusible than any other information due to the factors of the mass media determining the information value, and consumers trust the information by the mass media because they recognize the media information objectively. Therefore, the experience of the mass media delivering information about corporate management may play an important role in consumers' formation of the attitudes for a company and its corporate image.

If consumers face negative information delivery, changes in their attitudes will happen a lot due to the determination of negative information.

### 3.1.2. Examples of Behaviors in Accordance with Negative Information

It was intended to prove how a company changes in accordance with its response strategy in changing consumer attitudes for the company when its competitors were exposed to negative information. The impact of each type of the negative media reports was analyzed.

## 3.2. Consumer Response in Accordance with Cyber Information

### 3.2.1. Reliability of Cyber Media for Negative Information

One of the sectors that recently receives attention from the study of negative information perception is the association of consumers' information cognition for biased perception.

According to this study, if mass media are not consistent with consumers' opinion but are biased in other direction, people recognize that the information that has been biased affects other consumers and deduce public opinion

### 3.2.2. Examples of Cyber Media Delivery and Consumer Behaviors

A comparative study on the online newspaper information and newspaper information users' recognition of content was conducted to understand how the users of printed newspaper and online newspaper recognize each medium. A study was conducted to find out whether there is a difference between each information medium in the cognition of these subscribers, to investigate how users classify printed newspaper and online newspaper, and to study how info sheets are different in detail in terms of the similar nature as a medium.

# 4. Study Methods and Analysis of Study Results

## 4.1. Study Methods

This study consists of the analysis for the fluctuations in sales according to negative information on large retailers, ethical management of large retailers and consumer preference.

The fluctuations in sales according to negative information on large retailers were analyzed for consumer preference by analyzing the impact of the negative information news of large retailers. Large retailers' sales index out of the sales index of retailing business was classified as a dependent variable. The negative information (news) about large retailers (Lotte Mart, E-Mart and Homeplus) based on the monthly data over the past five years from 2008 to 2012 was analyzed as a dependent variable, and the correlations between dependent variables that are likely to affect sales through the of large retailers' economic index, special demand (traditional holidays) index and holiday (Saturdays, Sundays, public holidays) index were analyzed.

### 4.1.1. Study Model
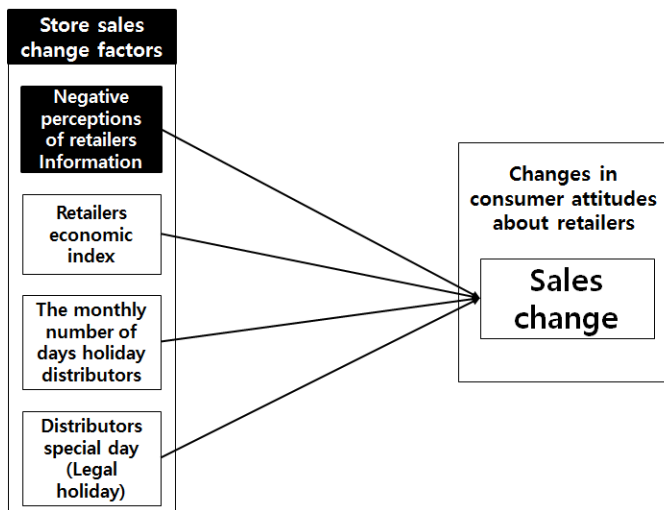


<Figure 1> Study Model for Fluctuations in Sales According to Negative Information on Large Retailers

As shown in <Fig. 1>, as the study on the fluctuations in sales according to negative information on large retailers, this study analyzes whether the consumers' perception of negative information, retailers' business index, large retailers' holiday index, and special demands enjoyed by large retailers during traditional holidays directly affect the sales index.

### 4.1.2. Study Hypothesis

Hypothesis 1: The negative news (information) on hypermarkets (large retailers) will negatively affect their sales (sales index).

The sales of hypermarkets may be immediately affected at the time when negative information on hypermarkets occurred, but negative information is assumed to continuously affect the sales of hypermarkets allowing for a time lag.

Hypothesis 2: The business index of retail trade (large retailers) will positively affect their sales (sales index).

The business index of retailers (large retailers) is also assumed to continuously affect the sales (sales index) of hypermarkets allowing for a time lag.

Hypothesis 3: The number of monthly holidays of retailers will positively affect their sales (sales index).

Hypothesis 4: The special demands (for traditional holidays) will positively affect their sales (sales index).

## 4.2. Analysis of Hypothesis Tests

### 4.2.1. Time Series Data Measurement

Information retrieval or media information is known to be more reliable than advertising or promotion. In addition, as can be also seen from the viewpoint of behavioral economics, consumers have a tendency to pay more attention to negative information than positive information on certain issues.

In terms of consumer behavior, the effect of negative information is assessed to have a large impact on evaluation and product determination.

<Table 1> Negative Information Words Classification

| Division | Selected word |
|---|---|
| Negative words | Conflict |
| | Crisis, risk |
| | Illegal |
| | Unfair |

### 4.2.2. Time Series Data Measurement

This study used the monthly data from August 2008 to December 2012 to apply logarithm to the variables except for the dummy variables for trends and holidays.

As time series data were used, there is a need to determine the stationarity of time series data. If a regression analysis is performed with unstable time series data, a problem of spurious regression arises.

This study verified the data stationarity only for the sales index of large retailers, number of negative information reports on hypermarkets and economic index for retailers through a unit root test. Although the number of holidays is time series data, no unit root test was performed for it because it is given exogenously. An ADF (Augmented Dickey-Fuller Test) and a PP (Phillips and Perron) Test were used to perform the unit root tests. The time lag determination in the ADF test was conducted based on the SIC (Schwartz Information Criterion).

<Table 2> Unit Root Test Results in Level Variables

| Division | ADF | | PP | |
|---|---|---|---|---|
| | Test statistic | p-value | Test statistic | p-value |
| Retailers sales index ($Y_t$) | -8.885 | 0.000 | -8.870 | 0.000 |
| Retailers reported a negative number($X_{1,t}$) | -5.738 | 0.000 | -5.678 | 0.000 |
| Retailers economic index ($X_{2,t}$) | -2.102 | 0.534 | -2.202 | 0.479 |

Note: The estimation model taking into account the intercept and linear trend changes was used for the unit root tests.

The null hypothesis that "unit root exists" was rejected at a significance level of 1% in the level variable of the sales index of hypermarkets the number of negative reports on hypermarkets, and the time serial data of these variables were determined to have stationarity.

On the other hand, the null hypothesis that unit root exists was not rejected even at a significance level of 10% in the economic index of retail trade, and the time serial data of the economic index of retail trade was determined to be unstationary data.

Therefore, as a result of the unit root tests conducted again using first-order difference, the null hypothesis that unit root exists was rejected at a significance level of 1%, and the stationarity was ensured in the first-order difference data of the economic index of retail trade.

<Table- 3> Unit Root Test Results for First-Order Difference of the Economic Index of Retail Trade

| Division | ADF | | PP | |
|---|---|---|---|---|
| | Test statistic | p-value | Test statistic | p-value |
| Retailers economic index ($\triangle X_{2,t}$) | -4.437 | 0.001 | -5.273 | 0.000 |

Note: The estimation model taking into account the intercept only was used for the unit root tests.

### 4.2.3. Time Lag Determination

It was necessary to determine the time lag for the period of time that the number of negative reports on hypermarkets affects the sales of hypermarkets.

Similarly, a time lag determination was necessary to investigate over what period of time the economic index of retail trade affects their sales.

This time lag may be determined by experience or the results of other previous studies. However, it was not easy to determine an appropriate time lag in the absence of the studies in this area.

Although there might be many methods in connection with the time lag determination, this study has chosen the time lag that minimizes the AIC (Akaike Information Criterion) value after estimating the VAR (Vector Autoregression) model for the number of negative reports on hypermarkets and the hypermarket

sales index by time lag.

Similarly, the time lag was for the economic index of retail trade was determined as per the above method.

<Table 4> Negative Information Time Lag Determination Table

| | 0 | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th | 11th |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retailers reported a negative number | -0.514 | -1.415 | -1.509 | -1.520 | -1.718 | -1.580 | -1.546 | -1.416 | -1.490 | -1.387 | -1.500 | -1.399 |
| Retailers economic index | -8.879 | -9.241 | -9.292 | -9.446 | -9.696 | -9.595 | -9.589 | -9.596 | -9.519 | -9.368 | -9.295 | -9.341 |

As a result of the above analysis, the time lag for the number of negative reports on hypermarkets between the economic indexes of retail trade was determined as a fourth-order time lag.

### 4.2.4. Study Formula

$$
\begin{aligned}
LSALES_t = &\ \beta_0 + \beta_1 LINFO_t + \beta_2 LINFO_{t-1} + \beta_3 LINFO_{t-2} + \beta_4 LINFO_{t-3} \\
&+ \beta_5 LINFO_{t-4} + \beta_6 \triangle LECON_t + \beta_7 \triangle LECON_{t-1} \\
&+ \beta_8 \triangle LECON_{t-2} + \beta_9 \triangle LECON_{t-3} + \beta_{10} \triangle LECON_{t-4} \\
&+ \beta_{11} TIME + \beta_{12} LHOLI + \beta_{13} D + \epsilon_t
\end{aligned}
$$

$LSALES_t$ = The sales index for The Retail during 't' period.
$LINFO_t$ = The number of negative information and reports on hypermarkets during 't' period.
$LINFO_{t-1}$ = The number of negative information and reports on hypermarkets during 't-1' period.
$LINFO_{t-2}$ = The number of negative information and reports on hypermarkets during 't-2' period.
$LINFO_{t-3}$ = The number of negative information and reports on hypermarkets during 't-3' period.
$LINFO_{t-4}$ = The number of negative information and reports on hypermarkets during 't-4' period.
$\triangle LECON_t$ = The primary difference for economic index for retail trade during 't' period.
$\triangle LECON_{t-1}$ = The primary difference for economic index for retail trade during 't-1' period.
$\triangle LECON_{t-2}$ = The primary difference for economic index for retail trade during 't-2' period.
$\triangle LECON_{t-3}$ = The primary difference for economic index for retail trade during 't-3' period.
$\triangle LECON_{t-4}$ = The primary difference for economic index for retail trade during 't-4' period.
TIME = trend (T=1,2,3,...)
LHOLI =Holidays during 't' period.
D = Dummy variables for traditional holidays (month with traditional holidays=1, month without traditional holidays=0)
D1 = A logarithm is taken for all variables except for time and D1 variables.

## 4.3. Empirical Analysis

### 4.3.1 Negative News (Information) Survey Status

As the information search or sensitivity to information gradually is switching from printed information media to internet information media as seen from previous studies increasing its ripple effect on these information media. This study used the data relating to internet.

**<Table 5>** Number of Negative News (Information) Exposure Classification Table

(Unit: Number)

| Media | NAVER | | | Sub total | DAUM | | | Sub total | Total |
|---|---|---|---|---|---|---|---|---|---|
| Retail-ers | Lotte Mart | E-Mart | Home Plus | | Lotte Mart | E-Mart | Home Plus | | |
| 2012 | 1,774 | 2,906 | 2,016 | 6,696 | 2,114 | 3,534 | 2,324 | 7,972 | 14,668 |
| 2011 | 1,093 | 1,901 | 925 | 3,919 | 1,114 | 2,056 | 1,157 | 4,327 | 8,246 |
| 2010 | 966 | 1,379 | 1,132 | 3,477 | 787 | 978 | 907 | 2,672 | 6,149 |
| 2009 | 666 | 1,110 | 1,150 | 2,926 | 617 | 980 | 1,092 | 2,689 | 5,615 |
| 2008 | 552 | 910 | 625 | 2,087 | 393 | 565 | 394 | 1,352 | 3,439 |
| Total | 5,051 | 8,206 | 5,848 | 19,105 | 5,025 | 8,113 | 5,874 | 19,012 | 38,117 |

Note: Survey Period(2008.01~2012.12/ 60 Month)

In particular, referring to or subscribing the internet is recognized for its fairness and integrity.

Accordingly, information on the top two companies was investigated based on Korea's major information search channels (on the basis of market share in Korea). As a result of the investigation of Korea's information search companies' market share and ripple effects in 2009, Naver was in first place (63.5%) and then Daum in second place (27.3%).

### 4.3.2. Negative News (Information) Survey Status

The exposure frequency of negative information on large retailers (hypermarkets) had gradually increased from 2008 to 2012. In particular, the frequency increased by 3.5 times in 2012 compared to 2008 and showed the average figure from less than 1,000 to more than of 2,000.

This shows that the interest in large retailers is increasing and consumers' attention is concentrated on negative information. The curves of the three major large retailers changing similarly may indicate socially common negative information, and it shows the occurrence of a common universal event of large retailers than the events for a certain company.

### 4.3.3. Reliability and Validity Checks of Measurement Data

As this study used time series data, a problem of autocorrelation is highly likely to occur. The Durbin-Watson test was conducted for autocorrelation diagnosis.

**<Table 6>** Durbin-Watson test with normal p value

| dw | Prob < dw |
|---|---|
| 2.463 | 0.9306 |

As the null hypothesis that autocorrelation does not exist could not be rejected, the Durbin-Watson test showed that autocorrelation does not exist. However, as the Durbin-Watson test was for testing first-order autocorrelation, it was thought that autocorrelation could not be fully tested in this study for which monthly data have been used by using only the Durbin-Watson test. Therefore, an additional correlation analysis was needed.

The Breusch–Godfrey serial correlation Lagrange multiplier test that tests the autocorrelation of 1-order and higher orders was used to test autocorrelation.

**<Table 7>** Breusch-Godfrey Serial Correlation LM Test

| F-statistic | 3.857536 | Prob. F(3,46) | 0.0152 |
|---|---|---|---|
| Obs*R-squared | 11.45751 | Prob. Chi-Square(4) | 0.0095 |

As a result of the Breusch–Godfrey's test conducted for autocorrelation in Month 4, the hypothesis that there is no autocorrelation could not be rejected at a significance level of 5%, and it is considered that there is no autocorrelation problem. However, as the hypothesis that the chi-square value of the BG test statistic exceeds the critical value, the hypothesis that there is no autocorrelation is rejected. Therefore, it was determined that there is an autocorrelation problem. Accordingly, the analysis results were conducted again by treating the autocorrelation problem in accordance with the estimates for Newey-West standard errors.

## 4.4. Analysis of Hypothesis Tests

### 4.4.1. Test of Study Hypotheses

This study did not consider the correlation between analysis samples and analysis of the time lag during the first study analysis and conducted the analysis assuming that there is no correlation. As a result, the analysis value has appeared to be incorrect. These results show that the exposure of negative information has no impact in Months 0~2, has an impact in Month 3 only, and then has no impact in Month 4 again. This is because there was no consideration of the correlation between samples. As mentioned in the data analysis, a correlation analysis is necessarily required as there is no impact of the correlation between samples in most time series data. Therefore, an analysis taking into account the correlation was conducted again.

**<Table 8>** Analysis for the Impact of Negative Information on Sales (Without Taking into Account Correlation)

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| Constant | 4.275343 | 0.252790 | 16.91264 | 0.0000 |
| LINFO | -0.020750 | 0.022508 | -0.921859 | 0.3620 |
| LINFO(-1) | 0.025001 | 0.023422 | 1.067390 | 0.2920 |
| LINFO(-2) | 0.008701 | 0.022408 | 0.388308 | 0.6998 |
| LINFO(-3) | -0.048653 | 0.021815 | -2.230240 | 0.0313 |
| LINFO(-4) | -0.025581 | 0.021339 | -1.198761 | 0.2375 |
| △LECON | 2.903984 | 1.185757 | 2.449056 | 0.0187 |
| △LECON(-1) | -2.383391 | 1.201403 | -1.983840 | 0.0540 |
| △LECON(-2) | 0.732969 | 1.134206 | 0.646240 | 0.5217 |
| △LECON(-3) | 0.201759 | 1.202820 | 0.167739 | 0.8676 |
| △LECON(-4) | -1.110540 | 1.139970 | -0.974183 | 0.3357 |
| TIME | 0.175921 | 0.066932 | 2.628367 | 0.0120 |
| LHOLI | 0.007662 | 0.001120 | 6.839787 | 0.0000 |
| D | 0.066088 | 0.022717 | 2.909227 | 0.0058 |
| R-squared | 0.853328 | Mean dependent var | | 4.628049 |
| Adjusted R-squared | 0.806822 | S.D. dependent var | | 0.115803 |
| S.E. of regression | 0.050898 | Akaike info criterion | | -2.902662 |
| Sum squared resid | 0.106214 | Schwarz criterion | | -2.391704 |
| Log likelihood | 93.82319 | Hannan-Quinn criter. | | -2.705070 |
| F-statistic | 18.34888 | Durbin-Watson stat | | 2.423759 |
| Prob(F-statistic) | 0.000000 | | | |

As this study conducted the second study analysis taking into account the correlation analysis, results have appeared allowing for a time lag. These results show that the exposure of negative information has the greatest impact in Month 3, having an impact until Month 4. In addition, it can be seen that the bigger the time lag becomes, the smaller the impact of the exposure of negative information becomes.

Given these analysis results, it can be seen that the negative information on large retailers (hypermarkets) is also affecting the sales of large retailers. In addition, this impact has appeared allowing for a time lag and showed a certain pattern.

**<Table 9>** Analysis for the Impact of Negative Information on Sales (Taking into Account Correlation)

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| Constant | 4.275343 | 0.226570 | 18.86986 | 0.0000 |
| LINFO | -0.020750 | 0.019744 | -1.050931 | 0.2994 |
| LINFO(-1) | 0.025001 | 0.023731 | 1.053517 | 0.2983 |
| LINFO(-2) | 0.008701 | 0.024942 | 0.348860 | 0.7290 |
| LINFO(-3) | -0.048653 | 0.014072 | -3.457387 | 0.0013 |
| LINFO(-4) | -0.025581 | 0.013548 | -1.888186 | 0.0661 |
| △LECON | 2.903984 | 1.597854 | 1.817427 | 0.0765 |
| △LECON(-1) | -2.383391 | 1.229579 | -1.938380 | 0.0595 |
| △LECON(-2) | 0.732969 | 0.846799 | 0.865576 | 0.3918 |
| △LECON(-3) | 0.201759 | 0.965087 | 0.209058 | 0.8354 |
| △LECON(-4) | -1.110540 | 1.087699 | -1.020999 | 0.3132 |
| TIME | 0.175921 | 0.058716 | 2.996158 | 0.0046 |
| LHOLI | 0.007662 | 0.000836 | 9.168479 | 0.0000 |
| D | 0.066088 | 0.018702 | 3.533748 | 0.0010 |
| R-squared | 0.853328 | Mean dependent var | | 4.628049 |
| Adjusted R-squared | 0.806822 | S.D. dependent var | | 0.115803 |
| S.E. of regression | 0.050898 | Akaike info criterion | | -2.902662 |
| Sum squared resid | 0.106214 | Schwarz criterion | | -2.391704 |
| Log likelihood | 93.82319 | Hannan-Quinn criter. | | -2.705070 |
| F-statistic | 18.34888 | Durbin-Watson stat | | 2.423759 |
| Prob(F-statistic) | 0.000000 | | | |

### 4.4.2. Analysis for the Results of Study Hypotheses

This study analyzed the correlation between various variables related to the sales in order to determine whether the negative information on large retailers affect the sales (sales index) of large retailers. In the analysis on whether the exposure of negative information directly affects the sales of large retailers as the first model, there is a time lag before when consumers perceive and respond to it. This time lag appears with a certain pattern, showing a phenomenon of gradually increasing in Month 1 and decreasing after Month 4.

It seems that consumers' habits or accessibility should be more considered. As previously mentioned, it shows a hypothesis that response to negative information will not immediately appear. The impact on negative information continues to appear from Month 1 to Month 4 and then gradually decreases. In particular, even though the results of the test conducted without taking into account the correlation showed the impact fragmentarily in Month 3, a certain pattern was shown throughout Month 1 and Month 3 when taking into account the correlation.

**<Table 10>** Tests for the Hypotheses of Fluctuations in Sales for the Negative Information (News) of Large Retailers

| Hypothesis | | Adoption |
|---|---|---|
| Hypothesis 1 | The negative news (information) on hypermarkets (large retailers) will negatively affect their sales (sales index). | Adopt portion (time difference effect) |
| Hypothesis 2 | The business index of retail trade (large retailers) will positively affect their sales (sales index). | Reject |

| Hypothesis 3 | The number of monthly holidays of retailers will positively affect their sales (sales index). | Reject |
|---|---|---|
| Hypothesis 4 | The special demands (for traditional holidays) will positively affect their sales (sales index).. | Reject |

The results showed that if the negative information on large retailers prior to Month 3 increases by 1% at the significance level of 1%, the sales index of large retailers (hypermarkets) decreases by 0.05%. In addition, it appeared that if the negative information on large retailers prior to Month 3 increases by 10% at the significance level of 1%, the sales index of large retailers (hypermarkets) of this period decreases by 0.02%.

Like this, the hypothesis that negative information affects the sales (sales index) of large retailers (hypermarkets) is proved. To be more specific, it can be seen that the sales are affected by the exposure to negative information until after Month 1 being continuously affected until Month 4, and then the impact disappears.

On the other hand, the economic index, number of holidays and number of traditional holidays which were expected to affect the sales index of large retailers were not significant.

The same results were obtained even when the correlation between variables were considered or not considered. The sales index was not directly affected during the analysis of correlation because it is a daily influence coefficient while the number of holidays and number of traditional holidays are daily influence coefficients. The economic index, which is a variable affecting the sales index in combination with other variables, had no impact independent.

## 5. Conclusions and Future Study Proposals

### 5.1. Summary of Conclusions

This study intended to analyze whether the ethical aspects as well as general store preferences discussed in the previous studies can be preference factors, how consumers will perceive negative information on store preferences and affect the change in store preferences and what impacts these will have on the ethical factors.

As a result of the study, unfair and negative information on large retailers appeared to be significant for the hypothesis that the sales will be affected by the image of large retailers and the change of consumer attitudes. The important thing here is that such information appeared to have not merely a temporary impact but a continuous impact for 2~4 months.

Even though the cause for the continuing direct impact on negative information has not been confirmed, it will be able to be confirmed in the future through the studies on consumer habits or tendencies.

As mentioned in the hypothesis, specific study results show that the impact on negative information appears after one month and is maintained for 4 months, being gradually decreased afterwards. In particular, an impact was fragmentarily seen after 3 months as a result of the test conducted without taking into account correlation, but a certain regular impact was seen at continuing intervals when correlation was considered.

Thus, large retailers should not respond merely to the temporary aspect of negative information exposure but respond to such information considering that it will continue to have direct impacts. In particular, as this study found that negative information (unfair trade cases) is gradually increasing.

### 5.2. Implications and Improvements

The influence of large retailers is gradually increasing and their impact on consumers is also increasing. However, the operating system of large retailers has not kept up with the increase of their influence. The most common instance is the gradual increase of the problems raised about unethical behavior of large retailers. As shown in this study, continuing to provide negative information on the same issue repeatedly may cause a crippling effect on the corporate marketing strategy.

As shown in the results of this study, negative information on large retailers directly affect their sales. According to the 2010 criteria, negative information on large retailers surveyed increased more than 4.3 times for five years.

These results indicate that consumers' interest in the fair trade of large retailers has increased.

Therefore, large retailers should have interest in such negative information and prepare measures for unethical behavior and need to ensure institutional and systematic prevention of the recurrences of unethical behavior. This is the strategy that gives a more direct impact on the sales increase and sustainable growth than spending costs for other management strategies.

Previous studies have had difficulty in factoring out the variables due to lack of the studies on the direct change of consumer attitudes towards unethical behavior or changes in retailers' sales or store choice. In particular, there were a lot of difficulties in analyzing the degree of consumers' ethical conduct.

In addition, this study has limitations such as the failure to widen the range of the time lag coefficients for the time lag correlation analysis in the study on the change in store sales for negative information.

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