

Research Article

# The Effects of Corporate Social Responsibility on Corporate Image, Customer Satisfaction and Customer Loyalty: An Empirical Study on the Telecommunication Industry

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**ABSTRACT:** The government requires enterprises to have adequate corporate social responsibility (CSR) and as such must prepare CSR reports to detail the avoidance of improperly obtained profits. Selling price is no longer the sole factor of purchase behavior to ensure that customers acquire better goods and a higher quality of service. The corporate image of enterprises within an industry has become the key factor of purchase behavior. Therefore, the implementation of CSR will not only affect corporate image, but also affect customer satisfaction and loyalty.

This paper attempts to investigate whether or not CSR serves to enhance corporate image, customer satisfaction and loyalty in the telecommunication industry. After the questionnaire process was completed, regression studies were used to test the hypotheses. The results show that the implementation of CSR in the telecommunication industry has a positive impact on corporate image, customer satisfaction and loyalty.

**Keywords:** Corporate Social Responsibility (CSR); Corporate Image; Customer Satisfaction; Customer Loyalty

## I. Introduction

Production-oriented organizations focus on how to increase production and reduce costs, with consumers only passively accepting their goods on the market. Over time, the number of competing enterprises has gradually increased, with consumers developing an enhanced awareness of self-protection so as to improve their quality requirements. As such, companies must establish their corporate image to stabilize their market position.

As global climate anomalies, significant social events occur frequently, such as natural disasters, human rights, labor rights and interests, resource allocation, corruption and bribery, as well as food safety and health issues. As a result, corporate social responsibility (CSR) has been increasingly influential in recent years. No longer is it paramount for an enterprise to simply maximize profits; managers should pay heed to the premise of “take from society, give back to society”. They must have a duty of responsibility, including employee benefits, shareholders’ interests, consumer rights and interests, environmental and public issues, and so on. In the highly competitive market, enterprises have to attract customers through marketing and advertising. Therefore, how to maintain corporate image is a very important issue. Customer satisfaction and loyalty must also be valued. If the consumer is not satisfied with the quality of products and services, that will affect the willingness of that customer to spend again, and even affect the perception of other consumers.

With the progress of technology, the emergence of smart phones has provided people with richer and more convenient lives. In addition to traditional mobile phone functions such as

answering, calling and sending text messages, most people use mobile Internet services anytime, anywhere. This phenomenon has led to a boom throughout the entire telecommunications market. With the growth of this market in mind, this study focuses on the impact of CSR, and how the factors of corporate image, customer satisfaction and loyalty are affected through enhancing CSR within the telecommunications industry.

## II. Literature

### 1. Corporate Social Responsibility (CSR)

Bowen’s “Social Responsibilities of the Businessman”, published in 1953, is the first comprehensive discussion of business ethics and social responsibility. It creates a foundation by which business executives and academics could consider the subjects as part of strategic planning and managerial decision-making. He argues that corporations must be cognizant of business ethics to achieve long-term superior performance. Carroll (1979) suggests four kinds of social responsibilities constituting total CSR: economic, legal, ethical, and philanthropic. Furthermore, these four categories or components of CSR might be depicted as a pyramid.

Godfrey et al. (2009) posit that CSR activities lead to positive attributions from stakeholders, who then temper their negative judgments and sanctions toward firms because of this goodwill. This is the theory of the “insurance-like” property of CSR activities. Sen et al. (2006) indicate that contingent on CSR awareness, which is rather low, stakeholders react positively to the focal company not only in the consumption domain, but in the employment and investment domains as well.

As for the subsequence of implementing CSR, there have been several literatures addressing this topic. Humphrey, Lee, Shen (2012) investigate whether firms' corporate social performance (CSP) ratings impact their performance and risk. Their findings show that there is no significant difference in the risk-adjusted performance of portfolios with high and low CSP. CSP does not seem to impact aggregate unsystematic risk. However, there is a positive relation between CSP and firm size. It implies that investors and managers are able to implement a CSP investment or business strategy without incurring any significant financial cost or benefit in terms of risk or return. However, Deng, Kang, and Low (2013) examine whether CSR creates value for acquiring firms' shareholders. They ascertain that compared with low-CSR acquirers, high-CSR acquirers realize higher merger announcement returns, higher announcement returns on the value-weighted portfolio of the acquirer and the target, and larger increases in post-merger long-term operating performance. Mergers by high-CSR acquirers take less time to complete and are less likely to fail than mergers by low-CSR acquirers. It implies that the acquirers' social performance is an important determinant of merger performance and the probability of its completion. It seems that the effects of implementing CSR tend to be positive.

## **2. Corporate Image**

Corporate image is the overall impression of enterprises as built through the various characteristics of a company, such as product features, marketing strategy, staff style, etc. This corporate image is an external manifestation of the enterprise culture. It is the overall impression obtained through the sensory transmission of the human body. Robertson and Gatignon (1986) propose that corporate image helps facilitate consumers' knowledge of products or services offered by a certain company and reduces uncertainty while making buying decisions. Consumers are directed to buy commodities from a company with good corporate image in order to reduce their risks.

Corporate image is a complex concept which covers corporate identity, individuality and marketing communications. CSR is part of company's individuality. Individuality forms corporate image, meaning CSR has influence on corporate image; however, a lack of insight into causality between CSR and corporate image has been identified.

Conversely, the empirical research of Virvilaite and Daubaraitė (2011) reveals that CSR is not the most important element forming corporate image. Companies emphasize the importance of economic and legal social responsibilities; consequently, a company which seeks an attractive corporate image should communicate that it meets laws and other legal regulations as well as fulfilling economic expectations. A company should dedicate a certain degree of attention towards the implementation of ethical and philanthropic social responsibilities. Jurisova and Durkova (2012) indicate that communication and utilization of the individual internal and external tools for communicating CSR currently have a great influence on global corporate identity. Maruf (2013) collates

reviewed literature and the newest empirical data noting that CSR has a positive impact on corporate image. This positive impact can be seen through various phenomena: positive consumer attitude, positive word of mouth, etc. Esmailpour and Barjoei (2016) investigate consumers within the Morghab food industry in Bushehr, demonstrating that CSR has a significant positive impact on corporate image and brand equity. It seems that the effects of implementing CSR tend to have a positive influence on corporate image.

## **3. Customer Satisfaction**

Customer satisfaction quantifies the phenomenon of how customers actually feel about a company's products and services compared to their expectations. Cardozo (1965) states that customer satisfaction with a product presumably leads to repeat purchases, acceptance of other products in the same product line, and favorable word-of-mouth publicity.

Although prior research has addressed the influence of CSR on perceived customer responses, it is not clear whether CSR affects the market value of the firm. Luo and Bhattacharya (2006) support that customer satisfaction partially mediates the relationship between CSR and firm market value, how corporate abilities (innovativeness capability and product quality) moderate financial returns to CSR, and how these moderated relationships are mediated by customer satisfaction. They find that for firms with low innovativeness capability, CSR actually reduces customer satisfaction levels and, as a result of this lowered satisfaction, harms market value. In contrast, Hanzae and Sadeghian (2010) conclude that legal and economic responsibilities can be considered as prerequisites for companies. There is no proportional correlation between execution of economic responsibility and customer satisfaction/ corporate reputation; instead, this is regarded as the basic responsibility of companies. The study of Alam and Rubel (2014) find there is no relationship between awareness of CSR and purchase intention. Moreover, there is no relationship between customer satisfaction and purchase intention, nor purchase intention and consumer retention for the telecommunications industry of Bangladesh.

However, Chung, Yu, Choi, and Shin (2015) indicate that CSR positively affects customer satisfaction and loyalty, and customer satisfaction positively affects customer loyalty. The moderating effect of corporate image in the relationship between CSR and customer satisfaction is identified. Therefore, managers should put CSR factors into action via the perspective of customers, which will encourage customers to perceive firms more favorably. It also seems that the effects of implementing CSR tend to have a positive influence on customer satisfaction.

## **4. Customer Loyalty**

Customer loyalty refers to customer feelings regarding a business product or service, namely the formation of preference and repeated long-term purchase of the product or service behavior, which is in turn affected by product quality, price, service, and other factors. Griffin (1995) describes four types of

loyalty: no loyalty, inertia loyalty, latent loyalty, and premium loyalty. She also describes a cycle that begins with turning suspects into qualified prospects, and moves through turning qualified prospects into first-time buyers, repeat customers, loyal clients, and finally into advocates. Griffin's book is slanted more toward personal selling and provides specific techniques salespeople can use to enhance loyalty.

Mandhachitara and Poolthong (2011) demonstrate that CSR has a significantly strong and positive association with attitudinal loyalty and that perceived service quality mediates the relationship between CSR and repeat patronage intentions (behavioral loyalty). Raman, Lim, and Nair (2012) apply a case study approach to empirically test their research model derived from the literature, and they suggest that the higher the practice of CSR, the stronger the consumer loyalty towards a particular firm. Diallo and Lambey-Checchin (2016) show a positive direct effect of CSR policy on loyalty and indirect effect through the mediation of customer trust and store image. They also indicate that the effect of CSR on loyalty is stronger when retailers use social discount communication than when they do not. Lu, Liu, and Rahman (2017) suggest a relatively strong impact of CSR dimensions (e.g., workplace, marketplace, and environment support) and other related attributes (e.g., price, product quality, and uniqueness) on developing customer loyalty in China. Moisescu (2017) also investigates the impact of customer perceptions of their service providers' CSR on customer loyalty, and indicates that customer loyalty towards retail banking companies is significantly and positively impacted by how customers perceive their providers' CSR. It also seems that the effects of implementing CSR tend to have a positive influence on customer loyalty.

### III. Methodology

#### 1. Research Assumption

Different authors emphasize different aspects of CSR; some argue that the CSR is not a form of altruism. The most important condition for a socially responsible business is to meet economic and legal expectations, as these provide the basis for further ethical and philanthropic responsibilities. The purpose of this study is to investigate whether companies in telecommunications improve corporate image, customer satisfaction and customer loyalty by emphasizing CSR. CSR can be subdivided into economic responsibilities, legal responsibilities, ethical responsibilities and philanthropic responsibilities (Carroll, 1979). In order to understand the impact of the implementation of different responsibilities on enterprises, the following hypotheses are proposed:

H1: The implementation of CSR in telecommunications has a positive impact on corporate image.

H1.1: The implementation of economic responsibilities in telecommunications has a positive impact on corporate image.

H1.2: The implementation of legal responsibilities in telecommunications has a positive impact on corporate image.

H1.3: The implementation of ethical responsibilities in

telecommunications has a positive impact on corporate image.

H1.4: The implementation of philanthropic responsibilities in telecommunications has a positive impact on corporate image.

H2: The implementation of CSR in telecommunications has a positive impact on customer satisfaction.

H2.1: The implementation of economic responsibilities in telecommunications has a positive impact on customer satisfaction.

H2.2: The implementation of legal responsibilities in telecommunications has a positive impact on customer satisfaction.

H2.3: The implementation of ethical responsibilities in telecommunications has a positive impact on customer satisfaction.

H2.4: The implementation of philanthropic responsibilities in telecommunications has a positive impact on customer satisfaction.

H3: The implementation of CSR in telecommunications has a positive impact on customer loyalty.

H3.1: The implementation of economic responsibilities in telecommunications has a positive impact on customer loyalty.

H3.2: The implementation of legal responsibilities in telecommunications has a positive impact on customer loyalty.

H3.3: The implementation of ethical responsibilities in telecommunications has a positive impact customer loyalty.

H3.4: The implementation of philanthropic responsibilities in telecommunications has a positive impact on customer loyalty.

Based on the above research hypothesis, we further discuss whether a company with high customer satisfaction has a significant impact on corporate image. Whether or not a company has higher customer satisfaction will positively affect customer loyalty and increases consumer willingness to buy again. Therefore, we put forth the following hypothesis:

H4: With the implementation of CSR in telecommunications, customer satisfaction has an intermediary effect on corporate image.

H5: With the implementation of CSR in telecommunications, customer satisfaction has an intermediary effect on customer loyalty.

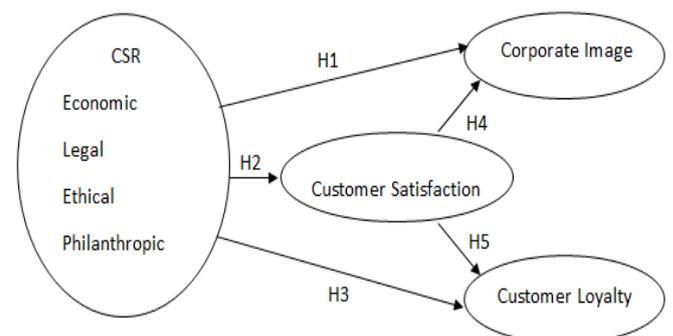


Figure 1: Research Hypotheses

### Research Sample

In this study, a questionnaire survey on the CSR activities of telecom companies was taken as a research sample. A total of 250 valid questionnaires on mobile phone consumers in Taiwan were collected for the survey.

This section describes a statistical analysis of the research

samples as a basis for subsequent analysis. The questionnaire was designed based on the five-point Likert scale. The five-level questionnaire was “Strongly agree”, “Agree”, “Neither agree nor disagree”, “Disagree”, and “Strongly disagree” on the five-point Likert scale.

**Table 1: Profile of Respondents and Sample Frame**

Items	Options	Number	Percentage (%)	Total
Gender	Male	65	26%	250
	Female	185	74%	
Age	Below 20 -years -old	51	20%	250
	20 to 29 -years -old	132	53%	
	30 to 39 -years -old	21	9%	
	40 to 49 -years -old	16	6%	
	Above 50 -years -old	30	12%	
Education	Junior High School and below	9	4%	250
	Senior High School	43	17%	
	College/ University	171	68%	
	Graduate School and above	27	11%	
Selected Telecom Companies	Chunghwa Telecom	104	42%	250
	Taiwan Mobile	62	25%	
	FarEasTone Telecommunications	61	24%	
	Others	23	9%	

### 2. Factor Analysis and Reliability Analysis

According to the research framework to verify the above research hypothesis, the variables of this study are delineated as the following four items: CSR, corporate image, customer satisfaction and customer loyalty. Table 2 is an operational definition statement of the research variables for this study.

**Table 2: Definitions of Variables**

Variables	Factors	Definitions
Corporate Social Responsibility	Economic Responsibilities	The most basic corporate responsibility; that is, taking into account the interests of consumers, employees and shareholders.
	Legal Responsibilities	Enterprises in the exercise of social responsibility must take the law as a precondition.
	Ethical Responsibilities	Judgment of the values and morals of the enterprise itself.
	Philanthropic Responsibilities	Corporate voluntary responsibility; there is spare capacity to exercise its responsibility.
Corporate Image	Corporate Image	Through the company’s product features, marketing strategies, and management style, how to set up the overall impression of the

Variables	Factors	Definitions
		business.
Customer Satisfaction	Customer Satisfaction	The actual customer experience of the company's products and services compared with their expectations
Customer Loyalty	Customer Loyalty	A customer's feelings of a company's products or services; the formation of preference and repeated long-term purchase of the product or service behavior.

The analysis of the questionnaire includes two parts: validity analysis and reliability analysis. Validity analysis refers to what the nature of the test can really measure; that is, the accuracy of the test scores. Reliability analysis is the consistency or stability of the test results; that is, the reliability of the test scores.

Validity analysis can be obtained by factor analysis. The main function of factor analysis is to combine many variables into a smaller number to describe the variations amongst these variables. In other words, the original data structure is represented by fewer levels. According to the correlation between the variables, the potential relationship structure between variables is found. In this study, a total of 30 questionnaires designed for the "View of Corporate Social Responsibility Activities of Telecommunication Companies"

were conducted on a Likert five-point scale with 250 validated applicants completing the questionnaire. Factor analysis was carried out by using "Principal Component Analysis" and "Varimax Orthogonal Axes", as shown in Table 3.

Cronbach's alpha is a measure of confidence, and as such is used as a measure of reliability in this study. Usually, the reliability of the general questionnaire survey is less than 0.70, which is inadequate, a range of about 0.80 is acceptable, and 0.90 means that the measurement result is stable and appropriate. The Cronbach's alpha values of the questionnaire in this study are 0.827, 0.895, 0.820, 0.849, 0.936, 0.931 and 0.933, as shown in Table 3. The values ranged from 0.820 to 0.936, all of which are higher than 0.7, thus meeting the high reliability standard. The questionnaire has a high degree of consistency, and there is considerable credibility.

**Table 3: Factor Loading and Reliability of Questionnaire Items**

Factors	Questionnaire Items	Factor Loading	Cronbach's alpha
Economic Responsibilities	My telecom company strives to improve the company's operating performance.	0.500	0.827
	My telecom company values service quality.	0.534	
Legal Responsibilities	My telecom company is able to comply with the relevant authorities' regulations.	0.668	0.895
	My telecom company do not deceive customers in marketing and advertising.	0.627	
	My telecom company focuses on information disclosure and transparency, such as financial and business information.	0.733	
	My telecom company provides complete telecom solutions information to all customers.	0.613	
	My telecom company has certain norms and standards for business conduct.	0.671	
Ethical Responsibilities	My telecom company values employee education, development and welfare.	0.772	0.820
	My telecom company is committed to using its part of its profits to help nonprofits.	0.797	
Philanthropic Responsibilities	My telecom company encourages partnerships with local businesses and schools.	0.766	0.849

Factors	Questionnaire Items	Factor Loading	Cronbach's alpha
	My telecom company values and often participates in charitable activities.	0.789	
Corporate Image	I have a good impression of my telecom company.	0.546	0.936
	My telecom company has a good reputation and is trustworthy.	0.515	
	My telecom company has a high reputation in the industry.	0.705	
	My telecom company provides its services with good quality.	0.590	
	The payment policy of my telecom company is simple and flexible.	0.755	
	My telecom company provides a multi-dimensional and complete telecommunications solution design.	0.604	
	My telecom company is a well-known company.	0.563	
	My telecom company has a complete service base.	0.761	
	My telecom company has a good overall image.	0.590	
Customer Satisfaction	The services provided by my telecom company make me feel good.	0.551	0.931
	The services provided by my telecom company bring me a feeling of happiness.	0.482	
	The content of the solutions provided by my telecom company make me feel satisfied.	0.564	
	My telecom company's services meet my needs.	0.500	
	Overall, I am satisfied with my telecom company.	0.555	
Customer Loyalty	I am willing to renew with my telecom company.	0.793	0.933
	My telecom company will be my first preferred option in the future.	0.817	
	If there is any need for other telecommunications in the future, I will continue to contact my telecom company.	0.795	
	When relatives and friends need to deal with telecom companies, I will take the initiative to recommend my telecom company.	0.778	
	If my telecom company raises monthly fees to maintain good service quality, I will still choose my telecom company.	0.742	

### 3. Correlation Analysis

In this study, Pearson correlation analysis was used to study the correlation between variables; the correlation coefficient matrix is shown in Table 4.  $|r| < 0.3$  is for the low linear correlation,  $0.3 \leq |r| < 0.6$  is for the significant correlation,

$0.6 \leq |r| < 0.9$  is for the highly linear correlation, and  $r = 1$  is for the complete correlation. Therefore, we can find that all the correlation coefficients are above 0.4 and have a significant positive correlation at the significant level of 0.01.

**Table 4: Correlation Analysis**

Variables	Mean	Std. Deviation	1	2	3	4	5	6	7
1. Economic Responsibilities	3.852	0.747	1						
2. Legal Responsibilities	3.805	0.673	0.745**	1					
3. Ethical Responsibilities	3.624	0.703	0.606**	0.770**	1				
4. Philanthropic Responsibilities	3.508	0.783	0.543**	0.679**	0.775**	1			
5. Corporate Image	3.730	0.707	0.702**	0.748**	0.649**	0.598**	1		
6. Customer Satisfaction	3.941	0.607	0.701**	0.715**	0.633**	0.590**	0.829**	1	
7. Customer Loyalty	3.631	0.810	0.648**	0.670**	0.545**	0.480**	0.770**	0.762**	1

Note: \*\* p-value < 0.01

#### 4. Questionnaire Analysis

This study applies regression analysis to investigate the relationship between CSR, corporate image, customer satisfaction and customer loyalty in the telecommunications industry.

##### ① The Relationship between CSR and Corporate Image in the Telecommunication Industry

As to the effect of CSR on corporate image, corporate image is designed as a dependent variable, with the four facets of CSR- economic, legal, ethical and philanthropic responsibilities- independent variables. This means Hypothesis H1 is validated by regression analysis.

In Table 5, the coefficient of determination in the model, adjusted R square value, is 0.61490. The F-value and P-value

of the regression equation are 100.3594 and 0, respectively. The P-value is less than 0.05, which indicates that CSR has a significant positive effect on corporate image. This supports Hypothesis H1.

Both economic and legal responsibilities have significant and positive influence on corporate image. However, ethical and philanthropic responsibility have no significant influence on corporate image. The standard coefficient  $\beta$  of the legal responsibility is 0.067146, which is higher than that of economic responsibility,  $\beta = 0.048032$ . It implies that the effect of legal responsibility on the implementation of corporate image is greater than that of economic responsibility.

**Table 5: Regression Analysis of CSR on Corporate Image in the Telecom Industry**

Variables	Coefficient	Standard Coefficient ( $\beta$ )	t-value	p-value
Constant	1.112891	-	7.742432	0.000000
Economic Responsibilities	0.251941	0.048032	5.245326	0.000000
Legal Responsibilities	0.339754	0.067146	5.059937	0.000001
Ethical Responsibilities	0.07786	0.063192	1.232113	0.219088
Philanthropic Responsibilities	0.080703	0.049329	1.636004	0.103123
F-value	100.3594			
P-value	0.000000			
Adj. R2	0.61490			

② The Relationship between CSR and Customer Satisfaction in the Telecommunication Industry As to the effect of CSR on the customer satisfaction, we take customer

satisfaction as a dependent variable, with the four facets of CSR- economic, legal, ethical and philanthropic responsibilities- as independent variables. This means

Hypothesis H2 is validated by regression analysis. In Table 6, the coefficient of determination in the model, adjusted R square value, is 0.58607. The F-value and P-value of the regression equation are 89.1388 and 0, respectively. The P-value is less than 0.05, which indicates that CSR has a significant positive effect on customer satisfaction. This supports Hypothesis H2. Both economic and legal responsibilities have a significant

and positive influence on customer satisfaction. However, ethical and philanthropic responsibility have no significant influence on customer satisfaction. The standard coefficient  $\beta$  of legal responsibility is 0.081157, which is higher than that of economic responsibility, where  $\beta = 0.058054$ . It implies that the effect of legal responsibility on the implementation of customer satisfaction is greater than that of economic responsibility.

**Table 6: Regression Analysis of CSR in the Telecom Industry on Customer Satisfaction**

Variables	Coefficient	Standard Coefficient ( $\beta$ )	t-value	p-value
Constant	0.521	-	2.998862	0.002989
Economic Responsibilities	0.341963	0.058054	5.89042	0.000000
Legal Responsibilities	0.301074	0.081157	3.709778	0.000257
Ethical Responsibilities	0.096317	0.076378	1.261054	0.208489
Philanthropic Responsibilities	0.113336	0.059623	1.90088	0.058491
F-value	89.1388			
P-value	0.000000			
Adj. R2	0.58607			

③ The Relationship between CSR and Customer Loyalty in the Telecommunication Industry

As to the effect of CSR on customer loyalty, we take customer loyalty as a dependent variable, and the four facets of CSR-economic, legal, ethical and philanthropic responsibilities-as independent variables. This means Hypothesis H3 is validated by regression analysis.

In Table 7, the coefficient of determination in the model, adjusted R square value, is 0.49132. The F-value and P-value of the regression equation are 61.1255 and 0, respectively. The P-value is less than 0.05, which indicates that CSR has a

significant positive effect on customer loyalty. This supports Hypothesis H3.

Both economic and legal responsibilities have a significant and positive influence on customer loyalty. However, ethical and philanthropic responsibility have no significant influence on customer satisfaction. The standard coefficient  $\beta$  of legal responsibility is 0.103039, which is higher than that of economic responsibility,  $\beta = 0.073707$ . It implies that the effect of legal responsibility on the implementation of customer loyalty is greater than that of economic responsibility.

**Table 7: Regression Analysis of CSR in the Telecom Industry on Customer Loyalty**

Variables	Coefficient	Standard Coefficient ( $\beta$ )	t-value	p-value
Constant	0.281625	-	1.276778	0.202889
Economic Responsibilities	0.359282	0.073707	4.874473	0.000002
Legal Responsibilities	0.467095	0.103039	4.533197	0.000009
Ethical Responsibilities	0.047182	0.096972	0.486549	0.627013
Philanthropic Responsibilities	0.004969	0.075698	0.065642	0.947716
F-value	61.1255			
P-value	0.000000			
Adj. R2	0.49132			

④ The Intermediary Effect of Customer Satisfaction on Corporate Image with the Implementation of CSR in the Telecom Industry

In Table 8, CSR has a significant impact on customer satisfaction, and the coefficient of regression is 0.846. In Model 1, CSR has a significant impact on corporate image,

and the coefficient of regression is 0.747. After adding customer satisfaction to Model 2, the regression coefficient of CSR still reached a statistically significant level, but its value decreased from 0.747 to 0.339. This implies that the impact on corporate image was weaker than that on customer

satisfaction. The regression coefficient of customer satisfaction on corporate image is at a statistically significant level. Thus, it verifies the intermediary effect of customer satisfaction on corporate image with the implementation of CSR, and supports Hypothesis H4.

**Table 8: The Intermediary Effect of Customer Satisfaction on Corporate Image with the Implementation of CSR in the Telecom Industry**

Variables	Customer Satisfaction	Corporate Image	
		Model 1	Model 2
CSR	0.846***	0.747***	0.339***
Customer Satisfaction			0.482***
Adj. R2	0.571	0.605	0.739
F-value	332.520	381.982	353.788

Note: \* p-value < 0.1; \*\* p-value < 0.05; \*\*\* p-value < 0.01

⑤ The Intermediary Effect of Customer Satisfaction on Customer Loyalty with the Implementation of CSR in the Telecom Industry

In Table 9, CSR has a significant impact on customer satisfaction, and the coefficient of regression is 0.846. In Model 1, CSR has a significant impact on customer loyalty, and the coefficient of regression is 0.872. After adding customer satisfaction to Model 2, the regression coefficient of

CSR still reached a statistically significant level, but its value decreased from 0.872 to 0.312. This implies that the impact on customer loyalty was weaker than that on customer satisfaction. The regression coefficient of customer satisfaction on customer loyalty is at a statistically significant level. Thus, it verifies the intermediary effect of customer satisfaction on customer loyalty with the implementation of CSR, and supports Hypothesis H5.

**Table 9: The Intermediary Effect of Customer Satisfaction on Customer Loyalty with the Implementation of CSR in the Telecom Industry**

Variables	Customer Satisfaction	Customer Loyalty	
		Model 1	Model 2
CSR	0.846***	0.872***	0.312***
Customer Satisfaction			0.661***
Adj. R2	0.571	0.462	0.603
F-value	332.520	214.723	89.465

Note: \* p-value < 0.1; \*\* p-value < 0.05; \*\*\* p-value < 0.01

#### IV. Conclusions

CSR has recently drawn increasing attention across the globe. In addition to mandatory CSR reports regulated by government, consumers also place more emphasis on their own rights and interests about CSR. Therefore, this study mainly investigates the effects of corporate image, customer satisfaction and customer loyalty after implementing CSR.

After questionnaire surveys and empirical analysis, the relevant research results are described as follows:

1. The Impact of CSR on Corporate Image in the Telecommunication Industry

The analysis of the questionnaire results in this study shows that Hypothesis H1 has been supported, and CSR has a

significant positive impact on corporate image. However, CSR can be subdivided into economic responsibility, legal responsibility, ethical responsibility and philanthropic responsibility. The implementation of economic and legal responsibility has a significant influence on corporate image, but ethical and philanthropic responsibility have no significant influence. This means that consumers pay more attention to economic and legal responsibilities, and are less concerned with ethical and philanthropic responsibility. One possible explanation is that consumers may have less recognition or understanding of corporate practices with regards to ethical and philanthropic responsibility.

## 2. The Impact of CSR on Customer Satisfaction in the Telecommunication Industry

The analysis of the questionnaire results in this study shows that Hypothesis H2 has been supported, and CSR has a significant positive impact on customer satisfaction. After further analysis, the implementation of economic and legal responsibility has a significant influence on customer satisfaction, but ethical and philanthropic responsibility have no significant influence. If enterprises want to increase their impact on customer satisfaction with regards to ethical and philanthropic responsibility, it is necessary to conduct a review or re-plan the implementation of the company's ethical and philanthropic obligations.

## 3. The Impact of CSR on Customer Loyalty in the Telecommunication Industry

The analysis of the questionnaire results in this study shows that Hypothesis H3 has been supported, and CSR has a significant positive impact on customer loyalty. After further analysis, the implementation of economic and legal responsibility has a significant influence on customer loyalty, but ethical and philanthropic responsibility have no significant influence; this is similar to the above-mentioned relation to corporate image and customer satisfaction.

## 4. The Intermediary Effect of Customer Satisfaction on Corporate Image with the Implementation of CSR in the Telecom Industry

Through the analysis of the questionnaire results in this study, it is evident that Hypothesis H4 has been supported. This suggests that customer satisfaction has some intermediary effects on corporate image with the implementation of CSR. The implementation of CSR by telecommunications companies can enhance consumer satisfaction and indirectly affect their perception of corporate image.

## 5. The Intermediary Effect of Customer Satisfaction on Customer Loyalty with the Implementation of CSR in the Telecom Industry

Through the analysis of the questionnaire results in this study, it is evident that Hypothesis H5 has been supported. This suggest that customer satisfaction has some intermediary effects on customer loyalty with the implementation of CSR. The implementation of CSR by telecommunications companies can increase consumer satisfaction and indirectly affect their willingness to buy and recommend to others.

This study is rigorous in its research process, but there are still some limitations. First, this study is based in Taiwan, yet each country/ region has its own social and economic differences. The results of this study can thus only apply to the majority of the telecommunication industry in Taiwan, and their application to other regions should be investigated in future works. Second, this study is limited by time and cost factors, applying a cross-sectional approach which used only one point in time for data collection. Therefore, the proposed model can only explain the variables at a particular time, and cannot observe these variables over time. We thus recommend that future researchers conduct long-term observations of the same sample to better understand the process from the initial

adoption CSR to its subsequent effects on companies' corporate image, customer satisfaction and customer loyalty. Finally, this study focused on the key items of corporate image, customer satisfaction and customer loyalty, but did not discuss any other character variables of CSR. We recommend that future researchers also look at the influence of the other character variables of CSR, and thus achieve a more comprehensive understanding of the influence of implementing CSR.

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