Reexamining Consumers’ Cognition and Evaluation of Corporate Social Responsibility via a DANP and IPA Method

Ghi-Feng Yen and Hui-Chun Tsao *

Department of Business Administration, Chung Yuan Christian University, Taoyuan 32023, Taiwan; gfyen@cycu.edu.tw
* Correspondence: gloria.tsao@cycu.org.tw

Received: 26 November 2019; Accepted: 8 January 2020; Published: 10 January 2020

Abstract: Companies nowadays strive to gain public recognition through corporate social responsibility (CSR) activities. However, what are consumers’ cognition and evaluations of these CSR efforts, and can they be explained by the concentric circle model, the pyramid model, the intersecting circles model, or by a combination of all three? The novelty of this study is to reexamine the traditional theoretical models in order to find an empirical answer and offer it as a reference to companies. First, we specified the causal relationships of the principles using the modified decision-making trial and evaluation laboratory (DEMATEL)-based analytic network process (ANP) (DANP); then we identified and examined consumers’ cognition and evaluation of these CSR efforts by importance-performance analysis (IPA). The research result demonstrates that, in a Taiwanese community, consumers’ cognition and evaluation of companies’ CSR rarely follows one single model. On basic economic and legal levels, consumers indicate characteristics of the intersecting circles model. On higher ethical and philanthropic levels, they exhibit characteristics of the pyramid/concentric circles models. Notably, consumers’ demands and expectations of companies have reached an ethical level but have not yet placed great value on a philanthropic level. Moreover, the actual phenomenon may be interpreted by a combination of the above-mentioned models. Low- and high-level CSRs reveal different characteristics; therefore, companies should cultivate various communication strategies to improve effectiveness.

Keywords: sustainable development; consumer cognition and evaluation; corporate social responsibility (CSR); decision-making trial and evaluation laboratory-based analytic network process (DANP); importance-performance analysis (IPA); communication strategy

1. Introduction

The concept of corporate social responsibility (CSR) became prevalent in the 1960s, and several research projects on the topic have continued to emerge, indicating that corporations have some responsibilities to society (with multiple stakeholders) beyond that of making profits for the shareholders [1,2]. Sarkar and Searcy [3] argue that, from the 1950s to the present day, the subject of CSR can be split into three phases: Specific social responsibilities, ethics, and macro-level topics. The focus of research has shifted from “process, antecedent, and outcome” in the past to a more complex and process-based discussion from the 2000s to the 2010s. This shows that an increasing amount of people are becoming interested in how companies choose and implement CSR-related activities [4].

The public’s interest in CSR has propelled companies to incorporate it into their marketing strategies and combinations [5–8]. CSR has become an important part of marketing and is seen as a strategy that influences consumer preferences [9]. However, there still seems to be space for research
and development on the topic of communication between CSR and stakeholders in academia [10], particularly the relationship between CSR and consumers. Researchers tend to focus on the role of the company when researching consumer beliefs and attitudes. Moreover, they assume that consumers believe the following: That their decisions to purchase something are based on ethics, that the company’s attitude on sustainability and behavior will impact consumer decisions, and that a company’s CSR image will impact consumer loyalty [8,11–14]. However, interviewing consumers has indicated that if consumers think that a company’s CSR policy is tied to its profits, negative impressions of the company may be formed [15]; similarly, consumers perceive a company as hypocritical and form negative perceptions when they believe that the company’s CSR activities arise from self-interest [16]. Therefore, it is considerably important to understand consumers’ cognition and communicate with them effectively. However, even the apparel industry, which should place a higher value on consumer demands and communication, focuses mainly on supply chains, products, environment management, and consumer behaviors, etc., in CSR-related research [17], failing to engage in real and effective communication with consumers.

In reality, an appropriate offering of CSR information to the company’s stakeholders helps the company improve its relationships with them [15,18]; when stakeholders believe the CSR information delivered by the company to be truthful, they form positive impressions of the company [13,19–21]. Regardless of whether CSR information is delivered through social media, websites, newspapers, magazines, or other promotional plans, a company must provide stakeholders with useful information that shows company efforts that aim at winning consumer approval and converting the approval into profits [22–27]. Therefore, the effectiveness of communication between CSR and the public is all the more important [21,28].

Several scholars focus on studying the influence of CSR reports on company operations [29,30], but we believe that when companies use CSR activities and projects as marketing tools, they must accurately understand and arouse the feelings of a set target based on demographic information. If the eventual purpose of marketing is, as per Kotler’s interpretation [31], a behavior with “transaction/exchange” at the core, marketing itself will be the “process” with “the law of supply and demand” as its foundation. In this process, supply and demand must “communicate” to finalize their transactions. Regardless of whether the transacted object comprises tangible items or intangible services, marketing can be conceptualized as a system of two-way communication between buyers and sellers [32]. Looking at CSR as a medium of communication, researchers have proposed approaching CSR communication from six aspects for evaluation, which include informativeness, third-party endorsement, personal relevance, message tone, consistency, and transparency [33,34].

When a company views CSR as an important marketing strategy, the company’s CSR activities, performance, and communication must be clear and comprehensible to its target audience [27,35]. Among the many CSR topics, which one touches a nerve with consumers? Which one is the hidden compass for the heart of a consumer? With a company’s limited resources, extant research has discussed how a company can efficiently utilize resources to conduct marketing or CSR activities [36,37]. Is the communication of a company’s CSR activities still on the right track to support them to finalize their transaction/exchange with consumers? Thus, the present study expects to elucidate consumers’ cognition and evaluation of CSR-related activities and reexamine whether the traditional theoretical models are still valid in explaining the status quo. In order to find out an empirical answer to engage in real and effective communication with consumers, we adopted a decision-making trial and evaluation laboratory-based analytic network process (DANP) to identify the causal relationships among the CSR factors and criteria from the consumer’s viewpoint. An importance-performance analysis (IPA) was utilized afterward to analyze the consumers’ cognition and evaluation of a company’s CSR activities to reconfirm the supply/demand relationship. We also provide practical suggestions to companies that use CSR as a marketing strategy based on the research result and its implications.
2. Literature Review

2.1. CSR-Related Literature

Different scholars have different opinions on CSR [38]. From the perspective of classical economics, as long as a company complies with the law, it fulfills its social responsibility when it maximizes its profits [39]. Another extreme viewpoint comes from the perspective of socioeconomics and holds that companies only need to maintain a profit level that allows them to stay in business, and their responsibilities are to contribute to the protection and progress of society [40]. Most scholars believe that CSR should satisfy both of the aforementioned, whether it is in CSR-related principles, processes, and company activities [41] or in more specific aspects such as environment, labor and human rights, philanthropic activities, company operations, bribery, and product characteristics [42]. Conversely, Robson and Mitchell [43] point out that a company’s social responsibility should contain both specific profit-driven activities that are conducted by the company and abstract macro-concepts, such as CSR-related strategies, community activities, pollution control, and sustainable operations. Dahlsrud [38] even elaborates on 37 definitions of CSR. Since economic interests and social interests are seemingly two contradictory concepts, Porter and Kramer [44] believe that CSR should be carried out in areas where economic interests and social interests can find a middle ground and operate in an interactive manner. In addition, McWilliams and Siegel [45] believe that a company’s strategic CSR can help mediate conflicts between private and public interests. In terms of cause-related marketing (CRM) used as strategic CSR, Yen and Yang [46] found that consumers tend to prefer companies that promote sales by donating part of the earnings rather than just providing a CSR platform service. Donation can balance private and public interests better for the company to conduct a more genuine CRM strategy.

2.2. Research Constructs of CSR

Carroll [47] argues that CSR should have four levels and is structured akin to a pyramid. From the bottom up, the first level is the economic, which is the most basic level, followed by legal, ethical, and philanthropic responsibilities, which is the highest level. CSR should begin from the most basic, namely, economic responsibility, and move onward from level to level (as shown in Figure 1a). Whether a company will strive for higher levels of CSR is its own decision. The Committee for Economic Development proposed the concentric circle concept of CSR [48,49] in 1971, with the inner-most circle being economic responsibility; there are three outer circles: legal, ethical, and philanthropic responsibilities (see Figure 1b). This concept posits that all higher-level CSR must surround economic responsibility as the core, and economic responsibility is, in itself, an integral part of CSR. Schwartz and Carroll [50] modified Carroll’s social responsibility pyramid into three levels (by removing philanthropic responsibility), and used intersecting circles to represent potential aspects of a company’s CSR implementation (see Figure 1c). Subsequently, after comparing the general descriptions, theoretical assumptions, research implications, and managerial implications of all the schools of thought on this issue, Geva [48] added philanthropic responsibility, which Schwartz and Carroll [50] had removed, back to the CSR constructs (see Figure 1d). Although these scholars believed that CSR could be divided into either levels or developmental stages, it is evident from previous research that four aspects were determined: economic, legal, ethical, and philanthropic responsibilities.
2.3. Criteria for Consumers’ Cognition of CSR

Based on Carroll’s CSR pyramid, Maignan [51] studied how consumers from different countries perceive CSR differently from the four aforementioned constructs. Ramasamy and Yeung [52] used the same four constructs and developed 16 criteria (see Table 1) to examine how consumers from different regions in China perceive CSR differently. Subsequently, some scholars continued to use these criteria to investigate consumer cognition of CSR, such as the level of cognition of CSR in the consumers of developing countries [53], differences in Chinese and Western consumers’ cognition of CSR [54], and consumers’ purchasing behavior after cognition of CSR [55,56]. However, there is no research that ranks the constructs of consumer cognition and evaluation of CSR in terms of priority. Therefore, this study adopts the same hierarchical levels of economic, legal, ethical, and philanthropic responsibilities as the research dimensions. Based on the 16 preexisting criteria of CSR, this study intents to rank the order in which consumers cognize and evaluate CSR in a more sophisticated manner. The development graph of hierarchical CSR cognition and evaluation is shown in Figure 2.
Table 1. Questionnaire for consumer cognition of corporate social responsibility: Constructs and criteria.

| Construct               | Criteria                                                                                      |
|-------------------------|---------------------------------------------------------------------------------------------|
| Economic Responsibilities| A1. Maximize profit<br>A2. Always improve economic performance<br>A3. Plan for their long-term success<br>A4. Control their production costs strictly |
| Legal Responsibilities  | B1. Always submit to the principles defined by the regulatory system<br>B2. Ensure that their employees act within the standards defined by law<br>B3. Refrain from putting aside their contractual obligations<br>B4. Refrain from bending the law even if this helps improve performance |
| Ethical Responsibilities| C1. Be committed to well-defined ethics principles<br>C2. Ensure that the respect of ethical principles has priority over that of economic performance<br>C3. Permit ethical concerns to negatively affect economic performance<br>C4. Avoid compromising ethical standards in order to achieve corporate goals |
| Philanthropic Responsibilities| D1. Participate in the management of public affairs<br>D2. Help solve social problems<br>D3. Play a role in our society that goes beyond the mere generation of profits<br>D4. Allocate some of their resources to philanthropic activities |

Source: Ramasamy and Yeung [52].
2.4. Strategic CSR Activities

Research shows that if a company carries out CSR-related activities, then not only will the quality of its service and products improve, but consumers’ trust and loyalty for the company will also be enhanced [8,11], or the company’s value will increase [21,57–59]. When consumers identify with the values and beliefs of a company, they trust it more and become more interested in participating in activities related to the company. As a result, the company’s relationship with consumers and society progresses in a positive direction [13]. Consumers who identify with a company’s value system will have a positive effect on the company’s marketing efforts; therefore, the company should distinguish these consumers when conducting its marketing strategies [60,61]. Strategic communication management will result in more benefits for the company [17].

Bowman and Haire [62] proposed that CSR is a company’s strategic activity that is able to change the outside world’s perception of the company and influence its business performance. Strategic CSR is defined as company activity that balances social and company interests [63]. Moreover, Lantos [64] observed that strategic CSR is a necessary activity on the part of the company. Novak [65] noted that constant communication with stakeholders to win their support is a company’s social responsibility, and strategic CSR can help the fulfillment of this social responsibility in actuality [66]. The CSR-related activities of a company can shape brand reputation and increase consumer participation [5]. Therefore, consumers will evaluate a company’s CSR activities; based on its CSR values, they judge the company’s products or services. Consequently, the evaluation and judgment will affect their purchasing behavior [55,56]. As a result, when a company plans appropriate CSR activities based on its capacity and makes relevant marketing decisions based on consumer preferences, it can change its image and improve consumer satisfaction [9].

2.5. Recap

Companies’ CSR issues have been proved to be important in many researches in the present business environment. Different traditional theoretical models of CSR are believed to play important roles in explaining the phenomenon one way or another. However, there are still unanswered questions about the nature and relationships of different social responsivities in these theoretical models. What kind of responsivities concern consumers the most? Can these two seemingly conflicting concepts, economic interests and social interests, compromise and achieve an acceptable balance between themselves and further operate in the real world? Thus, this study tries to clarify consumers’ cognition and evaluation of CSR activities and reexamine whether these theoretical models are still effective in explaining the relationships between companies and consumers. We also attempt to provide novel suggestions on CSR communication strategy for companies based on the empirical research result of the consumers.

3. Materials and Methods

The design of the present research comprised several steps and methods. First, the research framework and analysis method were established, followed by an explanation of the design of questionnaires and data collection methods. All subjects gave their informed consent for inclusion before they participated in the study. Finally, detailed descriptions of the research method were provided.

3.1. Research Framework and Methodology

3.1.1. Selection of Criteria and Research Framework

We proposed a hybrid multiple criteria decision-making (MCDM) model combining a decision-making trial and evaluation laboratory (DEMATEL) method with an analytic network process (ANP) (DANP). The DEMATEL method [67] is designed to determine the degree of influence of the CSR criteria and apply them to normalize the unweighted supermatrix in the ANP. The ANP method [68] handles dependence within a cluster (inner dependence) and among different clusters.
(outer dependence). The ANP is not only a nonlinear structure but also a network to show the dependence among criteria. Usually, the adoption of the Delphi method [69] is suggested for criteria verification by the consensus deviation index (CDI) to identify the criteria among experts. However, this research directly adopts the four constructs based on the CSR pyramid proposed by Ramasamy and Yeung [52] and the 16 criteria of consumer cognition of CSR. Several scholars who conducted consumer cognition-related research have adopted these criteria [53–56] and have verified the construct validity of the questionnaire after performing factor analysis. Therefore, this research will leave out an expert panel with the Delphi method to verify the validity of the criteria.

3.1.2. Methods to Analyze Key Factors and Causal Relationships between Criteria

The ANP proposed by Saaty [68] is an effective analytical tool used for decision-making processes. However, Ou Yang, Shieh, Leu, and Tzeng [70] argue that the paired comparative questionnaire in the first part imposes a burden on the respondents; consequently, they proposed DEMATEL methodology in conjunction with ANP, turned the DEMATEL overall influence matrix into an ANP unweighted supermatrix, and formed an influential network relations map (INRM), which ANP needed. This method has garnered great success and led DANP to be adopted in social sciences studies [71–74]. This research adopts the modified version of DANP created by Hu et al. [75] to determine key criteria (as shown in Figure 3). The modified DANP combines the characteristics of DEMATEL and ANP and produces prominences and relative weights without using them as the only measure. Instead, it uses the information to determine the key factors. Further, we use the total influence matrix to draft a cause-and-effect graph between all key factors rather than all criteria. In this manner, we can simplify the cause-and-effect graph and focus on analyzing the causal relationships of important factors. When one key factor has an arrow pointing at other factors, the former has an important impact on the latter. The detailed processes are illustrated in Section 3.3. Subsequently, we use importance-performance analysis (IPA) to determine the key factor that must be improved first and avoid the fallacy in previous DEMATEL research wherein the factor with the largest relation value is considered the key improvement factor; criteria with the highest relation value and criteria that influence other factors the most do not necessarily entail the most appropriate aspect for initial or immediate improvement [75].

![Figure 3. Structure of the modified decision-making trial and evaluation laboratory (DEMATEL)-based analytic network process (ANP) (DANP) analysis of the present study [75].](image-url)
3.2. Questionnaire Design and Data Collection

3.2.1. Questionnaire Design

1. Paired comparative questionnaires of key factors

We used the DEMATEL questionnaire to investigate consumers’ cognition of CSR by asking them to fill in one of three scores [75]: 0 (no influence), 1 (influence but unsure of severity), and 2 (major influence) on the paired comparative questionnaire. By collecting and coding these data, we generated a direct relation influence matrix based on the answers.

2. Performance evaluation questionnaire

With the same CSR criteria, we invited respondents to rate the CSR performance of Taiwanese companies that they recognized and to fill in one of the following: 0: (very unsatisfied), 25 (unsatisfied), 50 (normal (median value)), 75 (satisfied), or 100 (very satisfied).

3.2.2. Questionnaire Respondents

The paired comparative questionnaires had to be completed through face-to-face communication, where the rules and methods of filling out responses were explained clearly. Additionally, the most valuable investigative characteristic of DEMATEL and ANP is the smaller number of questionnaires through which a research result is attained. The respondents had to have an expert-level background or relevant industry experiences; therefore, they had to be selected through focal sampling. In December 2018, this research selected Executive Master of Business Administration (EMBA) students (who were in mid- to high-level management in various types of businesses and had completed a “Business Ethics and Corporate Social Responsibility” course) from a university in northern Taiwan. These students not only had management experiences but were also consumers with respect to other companies. This research released 71 questionnaires (40 male and 31 female). After excluding 12 invalid responses, we collected a total of 59 valid responses (Table 2 illustrates the demographic information of valid respondents).

| Table 2. Demographic Information of Respondents. |
|-----------------------------------------------|
| **Factor** | **Category** | **Number** | **Percentage** |
| Gender     | Male         | 33         | 55.93%        |
|            | Female       | 26         | 44.07%        |
| Age Group  | ≤30          | 4          | 6.78%         |
|            | 31–40        | 21         | 35.59%        |
|            | 41–50        | 23         | 38.98%        |
|            | ≥51          | 11         | 18.64%        |
| Occupation | Private sector| 51         | 86.44%        |
|            | Public sector| 8          | 13.56%        |
| Industry   | Manufacturing| 28         | 47.46%        |
|            | Services and Others| 31 | 52.54% |

3.3. Research Process

This study collected and analyzed the respondents’ data by the following processes.

3.3.1. Acquire a Direct Influence Matrix $Z$

We applied the DEMATEL technique for building an INRM by calculating the direct-influence matrix of scores. An evaluation of the relations between each mutually influencing criterion was made according to the opinions of respondents using a three-point ranging from 0 to 2, with scores represented by natural language. Scale: 0 = no effect, 1 = moderate effect, and 2 = very strong effect. We asked respondents to define the factors and then indicate the direct influence by a pairwise
comparison, and if they believed that criterion $i$ has an effect and influence on criterion $j$, they should indicate this by $Z_{ij}$. To determine the DEMATEL total influence matrix, $T$, the direct influence matrix, $Z$, is first constructed using the degree of effect between each pair of elements taken from respondent questionnaires. Thus, the direct influence matrix, $Z$, is created.

With the questionnaires, we obtain the influence level between each set of factors. We use this data to create a direct relation matrix, $Z$, where $Z_{ij}$ indicates the level of influence that factor $i$ has on factor $j$, and we set the diagonal factor $Z_{ii}$ as 0.

$$Z = \begin{bmatrix} Z_{11} & Z_{12} & \cdots & Z_{1n} \\ Z_{21} & Z_{22} & \cdots & Z_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ Z_{n1} & Z_{n2} & \cdots & Z_{nn} \end{bmatrix}$$

### 3.3.2. Normalize the Direct Influence Matrix $Z$ to Obtain Matrix $X$

We use (2) to normalize the direct influence matrix produced from (2); subsequently, we calculate to obtain a normalized direct relation matrix, $X$, and $X = \lambda \times Z$.

$$\lambda = \frac{1}{\max_{ij} \left\{ \max_{i=1}^{n} Z_{ij}, \max_{j=1}^{n} Z_{ij} \right\}}$$

(i, j = 1, 2, \ldots, n)  \tag{2}

### 3.3.3. Create a Total Influence Relation Matrix $T$

After normalizing the direct relation matrix, we can obtain the total influence relation matrix, $T$, from the equation $T = X(I - X)^{-1}$, where $0$ is the zero matrix, and $I$ is the identity matrix, the total influence relation matrix, $T$, of the INRM can be obtained from Equation (4).

$$\lim_{K \to \infty} X^K = [0]_{n \times n}, \quad 0 \leq X_{ij} \leq 1$$

$$T = \lim_{X \to \infty} (X + X^2 + \cdots X^K) = X(I - X)^{-1}$$

### 3.3.4. Determine the Prominence and Relation of Each Factor to Depict INRM

At this circumstance, the row sums and the column sums of the matrix components are separately expressed as vectors $D = \left[ \sum_{j=1}^{n} T_{ij} \right]_{n \times 1} = (d_1 \ldots d_n)'$ and $R = \left[ \sum_{i=1}^{n} T_{ij} \right]_{1 \times n} = (d_1 \ldots d_n)'$ by using Equations (5) and (6).

$$T = \left[ T_{ij} \right]_{n \times n}, \quad i, j \in \{1, 2, \ldots, n\}$$

$$D = \left[ \sum_{j=1}^{n} T_{ij} \right]_{n \times 1} = [d_1 \ldots d_n]'$$

$$R = \left[ \sum_{i=1}^{n} T_{ij} \right]_{1 \times n} = [r_1 \ldots r_n]'$$

The horizontal axis vector $(D_1 + R_1)$ is then defined by adding $d_i$ and $r_i$ to illustrate the importance of the criterion. Similarly, the vertical axis vector $(D_1 - R_1)$ is defined by subtracting $r_i$ from $d_i$, which may explain the criterion being a causal cluster or an affected cluster. When the value of $(D_1 - R_1)$ is positive, the criterion is defined as a part of the causal group. If the value of $(D_1 - R_1)$ is negative, the criterion is defined as a part of the affected group. Therefore, a causal diagram can be achieved by mapping the data set of $(D_1 + R_1, D_1 - R_1)$, namely the INRM, which we need to demonstrate a valuable
concept to decide which preferable values in each dimension and criterion can be improved based on the INRM.

3.3.5. Weighted Matrix (W)

We take the total influence relation matrix $T$ as an unweighted supermatrix of ANP and normalize the total impact relation matrix to produce the weighted matrix, $W$. We call the total influence relation matrix $W = \left[I^D\right]_{m \times m}$, obtained by criteria, and $T_D = \left[I_D^D\right]_{m \times m}$, obtained by dimensions, from $T$. We then normalize the supermatrix, $T$, for the ANP weights of dimensions by using influence matrix $T_D$. Each column will be summed up for normalization.

$$
\begin{align*}
& \begin{bmatrix}
c_{i1} & c_{i1} \cdots c_{i1} & \cdots & c_{i1} \cdots c_{im} & \cdots & c_{i1} \cdots c_{mn}
\end{align*}
\end{array}
\begin{array}{c}
D_1 \\
D_i \\
D_m
\end{array}
$$

$$
\begin{align*}
T &= \begin{bmatrix}
T_{i1} & \cdots & T_{in} \\
\vdots & \ddots & \vdots \\
T_{ni} & \cdots & T_{nn}
\end{bmatrix}
\end{align*}
\begin{array}{c}
D_1 \\
D_i \\
D_m
\end{array}
$$

After normalizing the total influence relation matrix, $T$, by dimensions, we will obtain a new matrix $T^e$ as shown in Equation (8).

$$
\begin{align*}
& \begin{bmatrix}
c_{i1} & c_{i1} \cdots c_{i1} & \cdots & c_{i1} \cdots c_{im} & \cdots & c_{i1} \cdots c_{mn}
\end{align*}
\end{array}
\begin{array}{c}
D_1 \\
D_i \\
D_m
\end{array}
$$

$$
\begin{align*}
T^e &= \begin{bmatrix}
T^{e11} & \cdots & T^{e1n} \\
\vdots & \ddots & \vdots \\
T^{en1} & \cdots & T^{enn}
\end{bmatrix}
\end{align*}
\begin{array}{c}
D_1 \\
D_i \\
D_m
\end{array}
$$

In addition, an explanation for the normalization, $T^{e11}$, is shown in Equations (9) and (10), and other $T^{e11}$ values are calculated by the same method.

$$
d_i^{11} = \sum_{j=1}^{m_i} t_{ij}^{11}, \quad i = 1, 2, \ldots, m_i
\tag{9}
$$

$$
T^{e11} = \begin{bmatrix}
t_{11}^{11} / d_i^{11} & \cdots & t_{1j}^{11} / d_i^{11} & \cdots & t_{i1}^{11} / d_i^{11} & \cdots & t_{i1}^{11} / d_i^{11} & \cdots & t_{i1}^{11} / d_i^{11}
\vdots & \ddots & \vdots & \ddots & \vdots & \ddots & \vdots & \ddots & \vdots \\
t_{11}^{11} / d_i^{11} & \cdots & t_{1j}^{11} / d_i^{11} & \cdots & t_{i1}^{11} / d_i^{11} & \cdots & t_{i1}^{11} / d_i^{11} & \cdots & t_{i1}^{11} / d_i^{11}
\vdots & \ddots & \vdots & \ddots & \vdots & \ddots & \vdots & \ddots & \vdots \\
t_{11}^{11} / d_m^{11} & \cdots & t_{1j}^{11} / d_m^{11} & \cdots & t_{i1}^{11} / d_m^{11} & \cdots & t_{i1}^{11} / d_m^{11} & \cdots & t_{i1}^{11} / d_m^{11}
\end{bmatrix}
\begin{bmatrix}
p_{11}^{11} & \cdots & p_{1j}^{11} & \cdots & p_{i1}^{11} & \cdots & p_{i1}^{11} & \cdots & p_{i1}^{11}
\vdots & \ddots & \vdots & \ddots & \vdots & \ddots & \vdots & \ddots & \vdots \\
p_{11}^{11} & \cdots & p_{1j}^{11} & \cdots & p_{i1}^{11} & \cdots & p_{i1}^{11} & \cdots & p_{i1}^{11}
\vdots & \ddots & \vdots & \ddots & \vdots & \ddots & \vdots & \ddots & \vdots \\
p_{11}^{11} & \cdots & p_{1j}^{11} & \cdots & p_{i1}^{11} & \cdots & p_{i1}^{11} & \cdots & p_{i1}^{11}
\end{bmatrix}
\tag{10}
$$
We let the total influence matrix match and fill into the interdependence clusters. It is called an unweighted supermatrix, as shown in Equation (11), which is based on transposing the normalized influence matrix, \( T^\infty \), by dimensions, i.e., \( W = (T^\infty)' \).

\[
W = (T^\infty)' = D_i \begin{pmatrix}
W^{11} & W^{1j} & \cdots & W^{1n} \\
W^{j1} & W^{jj} & \cdots & W^{jn} \\
\vdots & \vdots & \ddots & \vdots \\
W^{n1} & W^{nj} & \cdots & W^{nn}
\end{pmatrix}
\]

(11)

### 3.3.6. Obtain Weights

For obtaining the weighted supermatrix, each column will be summed up for normalization, as shown in Equation (12).

\[
T_D = \begin{bmatrix}
t_D^{11} & t_D^{1j} & \cdots & t_D^{1n} \\
t_D^{j1} & t_D^{jj} & \cdots & t_D^{jn} \\
\vdots & \vdots & \ddots & \vdots \\
t_D^{n1} & t_D^{nj} & \cdots & t_D^{nn}
\end{bmatrix}
\]

(12)

We then normalize the total influence matrix, \( T_D \), and obtain a new matrix, \( T_D^\infty \), where \( t_D^{ij} = t_D^{ij} / d_i \), as shown in Equation (13).

\[
T_D^\infty = \begin{bmatrix}
t_D^{11} / d_1 & t_D^{1j} / d_1 & \cdots & t_D^{1n} / d_1 \\
t_D^{j1} / d_1 & t_D^{jj} / d_1 & \cdots & t_D^{jn} / d_1 \\
\vdots & \vdots & \ddots & \vdots \\
t_D^{n1} / d_1 & t_D^{nj} / d_1 & \cdots & t_D^{nn} / d_1
\end{bmatrix} = \begin{bmatrix}
t_D^{11} & t_D^{1j} & \cdots & t_D^{1n} \\
t_D^{j1} & t_D^{jj} & \cdots & t_D^{jn} \\
\vdots & \vdots & \ddots & \vdots \\
t_D^{n1} & t_D^{nj} & \cdots & t_D^{nn}
\end{bmatrix}
\]

(13)

We then let the normalized total influence matrix, \( T_D^\infty \), fill into the unweighted supermatrix to acquire the weighted supermatrix.

\[
W^\infty = T_D^\infty \times W = \begin{bmatrix}
\rho_D^{11} \times W^{11} & \rho_D^{1j} \times W^{1j} & \cdots & \rho_D^{1n} \times W^{1n} \\
\vdots & \vdots & \ddots & \vdots \\
\rho_D^{j1} \times W^{j1} & \cdots & \rho_D^{jj} \times W^{jj} & \cdots & \rho_D^{jn} \times W^{jn} \\
\vdots & \vdots & \ddots & \ddots & \vdots \\
\rho_D^{n1} \times W^{n1} & \cdots & \rho_D^{nj} \times W^{nj} & \cdots & \rho_D^{nn} \times W^{nn}
\end{bmatrix}
\]

(14)

After putting \( W^\infty \) through several rounds of self-multiplication until the supermatrix has become a long-term stable supermatrix, such as \( \lim_{k \to \infty} (W^\infty)^k \), where \( k \) represents any number of power, we produce the limiting supermatrix, \( W^* \), and the weights of each factor.
Through the abovementioned steps, we can learn about the relations between the criteria and further draft a causal diagram for the evaluation criteria. By analyzing their prominence and performance values, we can discuss different theories and empirical results.

4. Results

4.1. Determining Causal Relations between Factors

The DEMATEL method does not emphasize that factors must be mutually independent. With the causal diagram, it allows us to study the relations between each pair of factors and to identify the most important and impactful factors of all factors [76]. This research uses DEMATEL to elucidate the contextual relations of consumer cognition of CSR.

4.1.1. Determine the Total Influence Matrix

1. Create a direct influence matrix (Z)

First, we analyze the 59 valid questionnaire responses and obtain a direct impact relation matrix (Z).

2. Create a normalized direct relation matrix (X)

We obtain the sum of each row and each column in the direct influence matrix, shown as \( \max \sum_{j=1}^{n} Z_{ij} \) and \( \max \sum_{i=1}^{n} Z_{ij} \), respectively; we take the one with a higher value as the coefficient for normalizing the matrix. Subsequently, we divide each factor in the direct influence matrix with the coefficient to obtain the normalized direct impact matrix (X).

3. Create a total influence matrix (T)

We put the normalized direct influence matrix into the equation \( T = X(I - X)^{-1} \) to acquire the total influence matrix, T, as shown in Table 3.

4. Calculate prominence and relation

When calculating prominence and the degree of correlation, we make \( i, j = 1, 2, \ldots, n \) the factors in the total influence relation matrix, T. The sum of each row is \( D \), and the sum of each column is \( R \). \( D + R \) is defined as prominence. The higher the value of \( D + R \), the more prominent the criterion. We also define \( D - R \) as the relation. If the relation of a criterion is positive, then that criterion is an active influencer. The higher the value of \( D - R \), the higher the factor's influence on other factors; companies may prioritize the improvement of criteria of this type. If the relation of a criterion is negative, then the criterion is on the receiving end of the influence. The lower the negative value, the more influenced such a factor is by other factors. Based on the total influence relation matrix of Table 3, we calculate and produce a prominence and relation table, as shown in Table 4.
### Table 3. Total influence matrix, $T$.

| T  | A1       | A2       | A3       | A4       | B1       | B2       | B3       | B4       | C1       | C2       | C3       | C4       | D1       | D2       | D3       | D4       | d        |
|----|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|    | 0.4170   | 0.4766   | 0.5111   | 0.4915   | 0.5206   | 0.5048   | 0.5089   | 0.5505   | 0.5120   | 0.4763   | 0.4859   | 0.4903   | 0.4011   | 0.3996   | 0.4034   | 0.4243   | 7.5739   |
| A1 | 0.4636   | 0.3676   | 0.4795   | 0.4615   | 0.4799   | 0.4610   | 0.4682   | 0.4986   | 0.4702   | 0.4367   | 0.4401   | 0.4452   | 0.3722   | 0.3716   | 0.3729   | 0.3906   | 6.9795   |
| A2 | 0.5151   | 0.4940   | 0.4508   | 0.5032   | 0.5464   | 0.5307   | 0.5361   | 0.5666   | 0.5343   | 0.4976   | 0.5094   | 0.5137   | 0.4225   | 0.4227   | 0.4286   | 0.4464   | 7.9180   |
| A3 | 0.4657   | 0.4461   | 0.4691   | 0.3673   | 0.4718   | 0.4620   | 0.4647   | 0.4963   | 0.4610   | 0.4239   | 0.4331   | 0.4360   | 0.3605   | 0.3538   | 0.3756   | 0.3763   | 6.8471   |
| A4 | 0.4689   | 0.4428   | 0.4885   | 0.4501   | 0.4601   | 0.5277   | 0.5318   | 0.5628   | 0.5263   | 0.4845   | 0.4863   | 0.4840   | 0.3913   | 0.3920   | 0.3896   | 0.4016   | 7.4883   |
| B1 | 0.4407   | 0.4287   | 0.4639   | 0.4329   | 0.5138   | 0.4233   | 0.5086   | 0.5347   | 0.4999   | 0.4594   | 0.4631   | 0.4601   | 0.3673   | 0.3695   | 0.3691   | 0.3798   | 7.1146   |
| B2 | 0.4173   | 0.4031   | 0.4419   | 0.4101   | 0.4915   | 0.4723   | 0.4067   | 0.5049   | 0.4705   | 0.4330   | 0.4380   | 0.4357   | 0.3538   | 0.3486   | 0.3519   | 0.3647   | 6.7442   |
| B3 | 0.4630   | 0.4444   | 0.4807   | 0.4459   | 0.5299   | 0.5146   | 0.5149   | 0.4707   | 0.5140   | 0.4796   | 0.4879   | 0.4813   | 0.3839   | 0.3816   | 0.3851   | 0.3963   | 7.3736   |
| B4 | 0.4438   | 0.4279   | 0.4660   | 0.4284   | 0.5205   | 0.5071   | 0.5078   | 0.4456   | 0.4888   | 0.4917   | 0.4916   | 0.3957   | 0.3922   | 0.3948   | 0.4088   | 7.3431   |
| C1 | 0.4495   | 0.4315   | 0.4712   | 0.4299   | 0.5221   | 0.5001   | 0.5114   | 0.5479   | 0.5286   | 0.4265   | 0.5058   | 0.5028   | 0.4092   | 0.4066   | 0.4085   | 0.4257   | 7.4774   |
| C2 | 0.4593   | 0.4403   | 0.4743   | 0.4404   | 0.5242   | 0.5057   | 0.5164   | 0.5444   | 0.5270   | 0.5055   | 0.4349   | 0.5115   | 0.4138   | 0.4105   | 0.4153   | 0.4314   | 7.5550   |
| C3 | 0.4675   | 0.4373   | 0.4761   | 0.4440   | 0.5276   | 0.5076   | 0.5161   | 0.5524   | 0.5306   | 0.5061   | 0.5105   | 0.4385   | 0.4202   | 0.4214   | 0.4218   | 0.4394   | 7.6171   |
| C4 | 0.4109   | 0.3816   | 0.4196   | 0.3890   | 0.4539   | 0.4325   | 0.4452   | 0.4666   | 0.4561   | 0.4352   | 0.4389   | 0.4407   | 0.3219   | 0.3972   | 0.3980   | 0.4111   | 6.6985   |
| D1 | 0.3867   | 0.3675   | 0.4048   | 0.3716   | 0.4351   | 0.4345   | 0.4551   | 0.4506   | 0.4305   | 0.4318   | 0.4296   | 0.3813   | 0.3133   | 0.3860   | 0.4009   | 6.5130   |
| D2 | 0.3924   | 0.3716   | 0.4097   | 0.3795   | 0.4455   | 0.4258   | 0.4398   | 0.4585   | 0.4437   | 0.4313   | 0.4347   | 0.3808   | 0.3848   | 0.3815   | 0.4035   | 6.5533   |
| D3 | 0.3960   | 0.3714   | 0.4155   | 0.3844   | 0.4423   | 0.4292   | 0.4381   | 0.4598   | 0.4483   | 0.4316   | 0.4345   | 0.3390   | 0.3944   | 0.3923   | 0.3309   | 6.5924   |
| D4 | 7.0575   | 6.7325   | 7.3226   | 6.8298   | 7.8932   | 7.6299   | 7.7493   | 8.2019   | 7.8205   | 7.3469   | 7.4251   | 7.4304   | 6.1646   | 6.1599   | 6.1934   | 6.4317   |
Table 4. Prominence and relation of criteria.

| Criteria                                      | D   | R   | D + R | Ranking | D – R |
|----------------------------------------------|-----|-----|-------|---------|------|
| Maximize profit (A1)                        | 7.60597 | 7.08718 | 14.6932 | 9 | 0.51879 |
| Always improve economic performance (A2)     | 7.02179 | 6.77306 | 13.7949 | 11 | 0.24873 |
| Plan for their long-term success (A3)        | 7.96579 | 7.36673 | 15.3325 | 3 | 0.59906 |
| Control their production costs strictly (A4) | 6.88836 | 6.87105 | 13.7594 | 12 | 0.01731 |
| Always submit to the principles defined by the regulatory system (B1) | 7.52624 | 7.93335 | 15.4596 | 2 | -0.40710 |
| Ensure that their employees act within the standards defined by law (B2) | 7.15274 | 7.67571 | 14.8329 | 8 | -0.51850 |
| Refrain from putting aside their contractual obligations (B3) | 6.77850 | 7.78883 | 14.5673 | 10 | -1.01030 |
| Refrain from bending the law even if this helps improve performance (B4) | 7.41104 | 8.24351 | 15.6546 | 1 | -0.83250 |
| Be committed to well-defined ethics principles (C1) | 7.38736 | 7.86761 | 15.2550 | 4 | -0.48020 |
| Ensure that the respect of ethical principles has priority over that of economic performance (C2) | 7.51577 | 7.38474 | 14.9005 | 7 | 0.13102 |
| Refrain from bending the law even if this helps improve performance (C3) | 7.59381 | 7.46327 | 15.0571 | 6 | 0.13054 |
| Avoid compromising ethical standards to achieve corporate goals (C4) | 7.66313 | 7.47538 | 15.1385 | 5 | 0.18775 |
| Participate in the management of public affairs (D1) | 6.73361 | 6.19705 | 12.9307 | 14 | 0.53656 |
| Help solve social problems (D2)               | 6.55324 | 6.19827 | 12.7515 | 16 | 0.35498 |
| Play a role in our society that goes beyond the mere generation of profits (D3) | 6.59384 | 6.23188 | 12.8257 | 15 | 0.36196 |
| Allocate some of their resources to philanthropic activities (D4) | 6.64543 | 6.48350 | 13.1289 | 13 | 0.16194 |

As Table 4 shows, in the eyes of consumers, A3, B1, and B4 are proven by the DEMATEL method to be comparatively important CSR activities.

4.1.2. Calculate and Determine Key Factors

1. Calculate the weighted supermatrix \( W^\pi \) and the limited supermatrix \( W^* \)

To make the total influence matrix comply with requirements made by the Markov chain [75], we normalize the total influence matrix so that “the sum of each column is 1,” and a weighted supermatrix is produced. We put the weighted supermatrix through self-multiplication until the supermatrix converges. As a result, we obtain the limited supermatrix, as shown in Table 5.
### Table 5. Limited supermatrix for criteria.

| W * | A1   | A2   | A3   | A4   | B1   | B2   | B3   | B4   | C1   | C2   | C3   | C4   | D1   | D2   | D3   | D4   |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| A1  | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 | 0.06620 |
| A2  | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 | 0.06105 |
| A3  | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 | 0.06920 |
| A4  | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 | 0.05989 |
| B1  | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 | 0.06540 |
| B2  | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 | 0.06214 |
| B3  | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 | 0.05895 |
| B4  | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 | 0.06445 |
| C1  | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 | 0.06418 |
| C2  | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 | 0.06533 |
| C3  | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 | 0.06603 |
| C4  | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 | 0.06658 |
| D1  | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 | 0.05860 |
| D2  | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 | 0.05697 |
| D3  | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 | 0.05733 |
| D4  | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 | 0.05771 |
2. Determine key factors

The prominence value generated by DEMATEL and the criteria prominence generated by ANP can both be used as the basis on which key factors are selected. This method has the same process of key factors determination as the Borda method [77]. After assigning values to the two groups of influencing factors that were calculated and obtained by DEMATEL and ANP, we add the two ranking values of each influencing factor. The lower the sum is, the higher the prominence, and vice versa. The aforementioned weighted ranking is shown in Table 6.

| Criteria                                      | Ranking of DEMATEL | Ranking of DANP | Sum of Ranking | Overall Rankings |
|-----------------------------------------------|--------------------|-----------------|----------------|------------------|
| Maximize profit (A1)                         | 9                  | 3               | 12             | 6                |
| Always improve economic performance (A2)     | 11                 | 10              | 21             | 10               |
| Plan for their long-term success (A3)        | 3                  | 1               | 4              | 1                |
| Control their production costs strictly (A4) | 12                 | 11              | 23             | 12               |
| Always submit to the principles defined by the regulatory system (B1) | 2 | 5 | 7 | 2 |
| Ensure that their employees act within the standards defined by law (B2) | 8 | 9 | 17 | 9 |
| Refrain from putting aside their contractual obligations (B3) | 10 | 12 | 22 | 11 |
| Refrain from bending the law even if this helps improve performance (B4) | 1 | 7 | 8 | 4 |
| Be committed to well-defined ethics principles (C1) | 4 | 8 | 12 | 6 |
| Ensure that the respect of ethical principles has priority over that of economic performance (C2) | 7 | 6 | 13 | 8 |
| Permit ethical concerns to negatively affect economic performance (C3) | 6 | 4 | 10 | 5 |
| Avoid compromising ethical standards to achieve corporate goals (C4) | 5 | 2 | 7 | 2 |
| Participate in the management of public affairs (D1) | 14 | 13 | 27 | 13 |
| Help solve social problems (D2) | 16 | 16 | 32 | 16 |
| Play a role in our society that goes beyond the mere generation of profits (D3) | 15 | 15 | 30 | 15 |
| Allocate some of their resources to philanthropic activities (D4) | 13 | 14 | 27 | 13 |

4.2. Draft the Causal Relation Diagram of Key Factors

After ranking the criteria with the Borda method, we select the top-ranking half of the criteria as key factors. Looking at the total influence matrix, criterion A3 has the greatest influence on the other criteria, whereas criterion B4 is heavily influenced by other criteria; relatively speaking, criterion B4 is strongly related to other factors in the legal construct. Therefore, we have produced results about the relations between key factors (as shown in Table 7) and drafted a causal relations diagram of the factors (as shown in Figure 4).
Table 7. Relations among key criteria.

| T | A1   | A2   | A3   | A4   | B1   | B2   | B3   | B4   | C1   | C2   | C3   | C4   | D1   | D2   | D3   | D4   | d    |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| A1| 0.4170 | 0.4766 | 0.5111 | 0.4915 | 0.5206 | 0.5048 | 0.5089 | 0.5505 | 0.5120 | 0.4763 | 0.4859 | 0.4903 | 0.4011 | 0.3996 | 0.4034 | 0.4243 | 7.5739 |
| A2| 0.4636 | 0.3676 | 0.4795 | 0.4615 | 0.4799 | 0.4610 | 0.4682 | 0.4986 | 0.4702 | 0.4367 | 0.4401 | 0.4452 | 0.3722 | 0.3716 | 0.3729 | 0.3906 | 6.9795 |
| A3| 0.5151 | 0.4940 | 0.4508 | 0.5032 | 0.5464 | 0.5307 | 0.5361 | 0.5666 | 0.5343 | 0.4976 | 0.5094 | 0.5137 | 0.4225 | 0.4227 | 0.4286 | 0.4464 | 7.9180 |
| A4| 0.4657 | 0.4461 | 0.4691 | 0.3673 | 0.4718 | 0.4620 | 0.4647 | 0.4963 | 0.4610 | 0.4239 | 0.4331 | 0.4360 | 0.3605 | 0.3538 | 0.3596 | 0.3763 | 6.8471 |
| B1| 0.4689 | 0.4428 | 0.4885 | 0.4501 | 0.4601 | 0.5277 | 0.5318 | 0.5628 | 0.5263 | 0.4845 | 0.4863 | 0.4840 | 0.3913 | 0.3920 | 0.3896 | 0.4016 | 7.4883 |
| B2| 0.4407 | 0.4287 | 0.4639 | 0.4329 | 0.5138 | 0.4233 | 0.5086 | 0.5347 | 0.4999 | 0.4594 | 0.4631 | 0.4601 | 0.3673 | 0.3695 | 0.3691 | 0.3798 | 7.1146 |
| B3| 0.4173 | 0.4031 | 0.4419 | 0.4101 | 0.4915 | 0.4723 | 0.4067 | 0.5049 | 0.4705 | 0.4330 | 0.4380 | 0.4357 | 0.3538 | 0.3486 | 0.3519 | 0.3647 | 6.7442 |
| B4| 0.4630 | 0.4444 | 0.4807 | 0.4459 | 0.5299 | 0.5146 | 0.5149 | 0.4707 | 0.5140 | 0.4796 | 0.4879 | 0.4813 | 0.3839 | 0.3816 | 0.3851 | 0.3963 | 7.3736 |
| C1| 0.4438 | 0.4279 | 0.4660 | 0.4284 | 0.5205 | 0.5071 | 0.5078 | 0.5322 | 0.4456 | 0.4888 | 0.4917 | 0.4916 | 0.3957 | 0.3922 | 0.3948 | 0.4088 | 7.3431 |
| C2| 0.4495 | 0.4315 | 0.4712 | 0.4299 | 0.5221 | 0.5001 | 0.5114 | 0.5479 | 0.5286 | 0.4265 | 0.5058 | 0.5028 | 0.4092 | 0.4066 | 0.4085 | 0.4257 | 7.4774 |
| C3| 0.4593 | 0.4403 | 0.4743 | 0.4404 | 0.5242 | 0.5057 | 0.5164 | 0.5444 | 0.5270 | 0.5055 | 0.4349 | 0.5115 | 0.4138 | 0.4105 | 0.4153 | 0.4314 | 7.5550 |
| C4| 0.4675 | 0.4373 | 0.4761 | 0.4440 | 0.5276 | 0.5076 | 0.5161 | 0.5524 | 0.5306 | 0.5061 | 0.5105 | 0.4385 | 0.4202 | 0.4214 | 0.4218 | 0.4394 | 7.6171 |
| D1| 0.4109 | 0.3816 | 0.4196 | 0.3890 | 0.4359 | 0.4325 | 0.4452 | 0.4666 | 0.4561 | 0.4352 | 0.4389 | 0.4407 | 0.3219 | 0.3972 | 0.3980 | 0.4111 | 6.6985 |
| D2| 0.3867 | 0.3675 | 0.4048 | 0.3716 | 0.4431 | 0.4257 | 0.4345 | 0.4551 | 0.4506 | 0.4305 | 0.4318 | 0.4296 | 0.3813 | 0.3133 | 0.3860 | 0.4009 | 6.5130 |
| D3| 0.3924 | 0.3716 | 0.4097 | 0.3795 | 0.4455 | 0.4258 | 0.4398 | 0.4585 | 0.4454 | 0.4317 | 0.4331 | 0.4347 | 0.3808 | 0.3848 | 0.3165 | 0.4035 | 6.5533 |
| D4| 0.3960 | 0.3714 | 0.4155 | 0.3844 | 0.4423 | 0.4292 | 0.4381 | 0.4598 | 0.4483 | 0.4316 | 0.4345 | 0.4347 | 0.3890 | 0.3944 | 0.3923 | 0.3309 | 6.5924 |
| r  | 7.0575 | 6.7325 | 7.3226 | 6.8298 | 7.8932 | 7.6299 | 7.7493 | 8.2019 | 7.8205 | 7.3469 | 7.4251 | 7.4304 | 6.1646 | 6.1599 | 6.1934 | 6.4317 |

These frames are parts of our results.
4.3. Importance-Performance Analysis

We also invited respondents to rank the CSR performance of Taiwanese companies they knew from unsatisfied (0 points) to very satisfied (100 points), based on their own cognition. After calculating the average of all the ratings, we obtain the results in Table 8.

Table 8. Importance-performance analysis for each criterion.

| Criteria                                           | Grade    |
|----------------------------------------------------|----------|
| Maximize profit (A1)                               | 77.5424  |
| Always improve economic performance (A2)           | 76.2712  |
| Plan for their long-term success (A3)              | 81.7797  |
| Control their production costs strictly (A4)       | 77.5425  |
| Always submit to the principles defined by the regulatory system (B1) | 83.5593 |
| Ensure that their employees act within the standards defined by law (B2) | 81.4407 |
| Refrain from putting aside their contractual obligations (B3) | 81.4407 |
| Refrain from bending the law even if this helps improve performance (B4) | 84.8305 |
| Be committed to well-defined ethics principles (C1) | 72.9661  |
| Ensure that the respect of ethical principles has priority over that of economic performance (C2) | 67.2881 |
| Permit unethical concerns to negatively affect economic performance (C3) | 62.6271 |
| Avoid compromising ethical standards in order to achieve corporate goals (C4) | 71.9492 |
| Participate in the management of public affairs (D1) | 60.5085  |
| Help solve social problems (D2)                    | 64.3220  |
| Play a role in our society that goes beyond the mere generation of profits (D3) | 60.9322 |
| Allocate some of their resources to philanthropic activities (D4) | 66.4407 |

We select the average value of 73.215 as a base value and create an IPA matrix from two constructs: prominence and performance value. We rank the prominence values based on the points given by respondents on company CSR performance and draw a graph that describes prominence and performance, as shown in Figure 5.
The IPA results indicate that ethics are important to consumers. However, most companies have not satisfied consumer expectations when it comes to ethics-related activities (located in quadrant II on the upper left part of Figure 5, i.e., parts that companies need to improve upon urgently). This phenomenon supports the empirical findings on ethical responsibility proposed by Tsao and Yen [78]. Even though companies do not perform very well in the philanthropic construct, consumers seem to not expect companies to fulfill such a responsibility (located in quadrant III on the lower left part of Figure 5, i.e., the part that companies do not need to focus on extensively). This specific result delivers a message that maybe consumers do not consider the philanthropic conduct as a “responsibility” in nature. The results of this study also support some views posited by Carroll [47], Schwartz and Carroll [50], and Geva [48] in that economic and legal aspects intersect, while ethical and philanthropic aspects maintain a hierarchical structure.

5. Discussions

5.1. Discoveries and Observations

Based on the analytical results of this study, we have made the following discoveries and observations. First, criterion B4 (i.e., refrain from bending the law) is most valued by the respondents of this research. Its D + R value (prominence) in DEMATEL is also the largest, which shows its importance. However, in the eight prioritized criteria chosen in this research, its D – R (relation) is the lowest, which shows that it is heavily influenced by other criteria. This criterion, as with the other three criteria in the legal construct, is heavily influenced by the criteria of other constructs (economic, ethical, and philanthropic). In summary, because the legal aspect of CSR has clear regulations, its criteria are the ones most easily perceived by the public. Further, a company’s response to government legislation can improve the company’s legitimacy [79] and help the company obtain the requisite resources as well as endorsement [30]. In this study, we argue that, to win consumers’ recognition, a company must have a basic image that it correctly recognizes, and it obeys the laws.

Second, we have determined that criterion A3 (i.e., long-term success plan) is the most important point of departure for a company’s CSR strategy. This criterion will not only improve seven other CSRs deemed to be important criteria by consumers but will also influence the CSR goal that is demanded by consumers. This finding is in accordance with Taylor et al. [59], who argue that consumer-oriented companies should integrate CSR into company-related activities and live by the principle of “Do well by doing good” to improve company value. In reality, based on the results of a global survey made by McKinsey Insights [80], an increasing number of companies and CEOs have come to value their sustainable development plans and communications with consumers.
Finally, after including IPA results and redrafting graphs based on DEMATEL and DANP rankings, we discovered the criteria that belong to the ethical and philanthropic constructs have not changed because of Borda’s overall effect. However, criteria that belong to the economic and legal constructs changed slightly (see Figure 6a,b). From a DEMATEL perspective, consumers think that companies pay too much attention to the economic construct; the four constructs are virtually distributed in a hierarchical order. From a DANP perspective, the boundary between a company’s economic and legal CSR construct is blurry. This variation is an interesting observation point of these two methods. DEMATEL shows that the cognition among consumers is very similar to Carroll [47] and the Committee of Economic Development thesis [81], and that the CSR responsibilities are divided hierarchically. However, DANP results show that interactions between economic and legal levels are recognized by consumers. This finding tells us that consumers do recognize that CSR could be divided into economic, legal, ethical and philanthropic responsibilities. The DANP results indicate that customers do request companies to obey the laws while pursuing profits. Consequently, it is more rational for companies to reflect the reality among social requests. After all, companies need to survive by making profits but they must be supervised by laws. This shows that, in the development process of CSR, economic and legal constructs may not be structured in a hierarchical order, as proposed by the Committee of Economic Development [81] and Carroll [47], but exhibit more intersectional characteristics [48,50]. Upon ranking the criteria per the Borda method, we realized that the conclusion is almost the same as that achieved by the DANP method. In other words, both hierarchical and intersectional CSR constructs exist simultaneously in practice, and different analytical tools or methods produce only slight differences. Comparatively, DANP presents clearer causality between criteria and provides better understanding from the data we collected.

Because the purpose of this research is to express the customers’ cognition among CSR responsibilities and has the ranking and importance of criterion as the end goals, action plans are not needed. Therefore, we do not apply the technique for order preference by similarity to ideal solution (TOPSIS) or the Vlse Kriterijumska Optimizacija I Kompromisno Resenje (VIKOR) method to compare alternative projects, even though we do have weights of criteria that are necessary materials to use the TOPSIS and VIKOR methods [82].

![DANP-ranked IPA](image1)

![DEMETEL-ranked IPA](image2)

**Figure 6.** (a) DANP-ranked importance-performance analysis (IPA) of responsibilities; (b) DEMETEL-ranked IPA of responsibilities. ★ Economic criteria, ● Legal criteria, ▲ Ethical criteria, and ■ Philanthropic criteria.

### 5.2. Practical and Managerial Implications

The results of the present study agree with the theory proposed by Porter and Kramer [44] and McWilliams and Siegel [45] in that CSR is the realm where social interests and economic interests interact with one another. However, we differ from Porter and Kramer [44] because we believe that the development of CSR has its own process and that the result of this process is achieved through
compromise. This is because companies must guard their economic interests, just as consumers (the public) must adhere to their social interests. In the development of CSR, external environment and company conditions must act upon one another and mediate conflicts [62,83,84]; as a result, companies that “only focus on economic interests” or companies that “only focus on social interests” are not allowed or not able to exist.

A more specific observation is that, regardless of whether the IPA results are DANP-ranked or DEMATEL-ranked (refer to Figure 6a,b), consumers rated company performance positively in fulfilling economic and legal responsibilities. More specifically, in the realm of consumer cognition and evaluation, A1 (maximize profit), A2 (always improve economic performance), and B3 (refrain from putting aside their contractual obligations) are not important criteria. Therefore, these criteria should not be key factors in a company’s communication strategies. In a practical sense, companies may even reduce the importance of these factors and invest more resources, efforts, and communication strategies into ethical responsibilities.

Compared to previous research by Wang et al. [4], this study shows some differences between CSR requirements in developing countries and those in developed countries. In mainland China and Hong Kong, where the culture is similar but development stages are different, consumers have different cognitions of and requirements for CSR [85]. This research also showed that Taiwanese consumers are concerned with ethical responsibility when asked about their evaluation and expectation of CSR. When Taiwanese consumers have advanced to a relatively higher level of CSR cognition, a company must respond to the consumers’ cognition, evaluation, and expectations of CSR if it is to incorporate CSR as a business strategy. However, the current phase does not yet require a company to invest resources or efforts in philanthropic responsibilities, since consumers have not yet come to see the higher-level “philanthropic” activities as a social “responsibility” that a company must fulfill. In the research and survey conducted in Hong Kong by Welford et al. [86], three CSR topics (environment, health and safety, and governance) out of 15 are seen as the most important, while philanthropic topics are the least important. However, some companies have currently started to carry out genuine prosocial and philanthropic activities (refer to [87,88]), as we expected.

6. Conclusions

6.1. Research Aims and Contributions

The results of this study show that, to consumers, economic interests and social interests are not absolute opposites. Consumers agree that under the premise of legal compliance, companies are allowed to make profits. Consumers also believe economic and legal responsibilities in CSR are the basic CSR requirements. Furthermore, legal responsibility is the most important part that should be complied with. Therefore, if a company intends to use CSR as an important business or marketing strategy, it must reveal business or improvement plans that aim at better legal compliance to consumers. Similarly, the relevant efforts and investments incurred should also be made known to the public. Through such a genuine, complete method of communication, the company may win endorsement from target consumers. Therefore, because of the restricted resources, each company may adopt DANP with TOPSIS or VIKOR studies to compare alternatives and then determine their own CSR communication strategies to improve effectiveness.

Therefore, if we were to compare the classic economic and socioeconomic viewpoints, the most important purpose of a company is to pursue profits. The opposite role is represented by consumers who play many stakeholder roles in society and emphasize overall social interests. Solutions in the intersecting area to which both parties may concede are shown in Figure 7. Here we can see the two viewpoints on CSR and the different responsibilities entailed. The development phases of consumer cognition and demands and of company CSR implementation are also clearly illustrated.
6.2. Research Limitations and Future Suggestions

In terms of the limitations of the research methods, we used purposive sampling to select consumers who were representative as respondents. These respondents may not perfectly represent the body of consumers. However, the respondents in the present study were both “mid- to high-level managers” as well as “consumers.” Therefore, they may focus more on corporate governance-related considerations; this possibility cannot be completely dispelled. Additionally, the respondents had all received education and training in “business ethics and corporate social responsibility” and could therefore have a higher cognitive level of CSR. Does the ethical training or educational background cause a clear difference in the cognition of CSR? We suggest that future researchers attempt to extend the group of sampled respondents to general consumers (i.e., the public). Moreover, we recommend that researchers conduct CSR cognition and evaluation research that can also be targeted at different groups or consumers with specific employment backgrounds. Considering the previous findings of Welford et al. [86], we understand that company owners and stakeholders have different viewpoints; different stakeholders also have different orders of priority. Furthermore, although the DANP method can provide fairly objective and accurate results from a small sample size when the question-answering procedure of the experts or qualified respondents is well supervised, and there is evidence showing that these researches were completed with only 6–8 qualified experts [70,71,75], it still raises a sample size problem for researchers to deal with.

In the questionnaire, we only requested that respondents rate the overall CSR performance of Taiwanese companies by their cognition. However, consumers may have a nuanced cognition of companies’ CSR performance, which differs from sector to sector. Future studies may examine this topic and investigate whether consumers have different CSR requirements for different industries. As a result, contextual factors such as economic development, cultural differences, war, and natural disasters can also influence consumers’ cognition and standards of CSR. More empirical research in this regard is required to progress in the field. From the results of the present study, we can observe that the consumers of today do not believe that companies have fulfilled their ethical responsibilities yet, not to mention their philanthropic ones. They may have expectations of companies’ fulfillment of philanthropic responsibilities in the long-term future. For example, after Typhoon Morakot and the Kaohsiung gas explosion, the world-renowned Taiwan Semiconductor Manufacturing Company (TSMC) mobilized company and employee donations, worked with manufacturers, and directly entered the impacted areas to assist local residents in post-disaster rebuilding projects [89,90]. All these activities had no direct connection to the company’s sales activities, but indirect company reputation has been upraised massively. Therefore, future research should consider investigating the direct, indirect, and long-term positive influence of the purely philanthropic activities of companies.
Author Contributions: Conceptualization, G.-F.Y. and H.-C.T.; methodology, H.-C.T.; software, H.-C.T.; validation, G.-F.Y.; formal analysis, G.-F.Y. and H.-C.T.; writing—original draft preparation, H.-C.T.; writing—review and editing, G.-F.Y. and H.-C.T.; visualization, H.-C.T.; supervision, G.-F.Y. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Carroll, A.B. Corporate social responsibility: Evolution of a definitional construct. *Bus. Soc.* 1999, 38, 268–295. [CrossRef]
2. Carroll, A.B.; Shabana, K.M. The business Case for corporate social responsibility: A review of concepts, research and practice. *Int. J. Manag. Rev.* 2010, 12, 85–105. [CrossRef]
3. Sarkar, S.; Searcy, C. Zeitgeist or chameleon? A quantitative analysis of CSR definitions. *J. Clean. Prod.* 2016, 135, 1423–1435. [CrossRef]
4. Wang, H.; Tong, L.; Takeuchi, R.; George, G. Corporate social responsibility: An overview and new research directions. *Acad. Manag. J.* 2016, 59, 534–544. [CrossRef]
5. Hoeflner, S.; Keller, K.L. Building brand equity through Corporate Societal Marketing. *J. Public Policy Mark.* 2002, 21, 78–89. [CrossRef]
6. Bigné-Alcañiz, E.; Currás-Pérez, R.; Sánchez-García, I. Brand credibility in cause-related marketing: The moderating role of consumer values. *J. Prod. Brand Manag.* 2009, 18, 437–447. [CrossRef]
7. Kang, K.H.; Lee, S.; Huh, C. Impacts of positive and negative corporate social responsibility activities on company performance in the hospitality industry. *Int. J. Hosp. Manag.* 2010, 29, 72–82. [CrossRef]
8. Mandhachitara, R.; Poolthong, Y. A model of Customer Loyalty and Corporate Social Responsibility. *J. Serv. Mark.* 2011, 25, 122–133. [CrossRef]
9. Lu, T.; Wei, X.; Li, K. Consumer responses to corporate social responsibility programs: The influence of company-cause fit and consumer involvement. *Nankai Bus. Rev. Int.* 2015, 6, 364–380. [CrossRef]
10. Høvring, C.M.; Andersen, S.E.; Nielsen, A.E. Discursive tensions in CSR multi-stakeholder dialogue: A Foucauldian perspective. *J. Bus. Eth.* 2018, 152, 627–645. [CrossRef]
11. Poolthong, Y; Mandhachitara, R. Customer expectations of CSR, perceived service quality and brand effect in Thai retail banking. *Int. J. Bank Mark.* 2009, 27, 408–427. [CrossRef]
12. Matute-Vallejo, J.; Bravo, R.; Pina, J.M. The influence of corporate social responsibility and price fairness on customer behaviour: Evidence from the financial sector. *Corp. Soc. Responsib. Environ. Manag.* 2011, 18, 317–331. [CrossRef]
13. Hwang, J.; Kandampully, J. Embracing CSR in pro-social relationship marketing program: Understanding driving forces of positive consumer responses. *J. Serv. Mark.* 2015, 29, 344–353. [CrossRef]
14. Jarvis, W.; Ouschan, R.; Burton, H.J.; Soutar, G.; O’Brien, I.M. Customer engagement in CSR: A utility theory model with moderating variables. *J. Serv. Theory Pract.* 2017, 27, 833–853. [CrossRef]
15. Öberseder, M.; Schlegelmilch, B.B.; Murphy, P.E. CSR practices and consumer perceptions. *J. Bus. Res.* 2013, 66, 1839–1851. [CrossRef]
16. Shim, K.; Chung, M.; Kim, Y. Does ethical orientation matter? Determinants of public reaction to CSR communication. *Public Relat. Rev.* 2017, 43, 817–828. [CrossRef]
17. White, C.L.; Nielsen, A.E.; Valentini, C. CSR Research in the apparel industry: A quantitative and qualitative review of existing literature. *Corp. Soc. Responsib. Environ. Manag.* 2017, 24, 382–394. [CrossRef]
18. Bhattacharya, C.B.; Korschun, D.; Sen, S. Strengthening stakeholder-company relationships through mutually beneficial corporate social responsibility initiatives. *J. Bus. Eth.* 2009, 85, 257–272. [CrossRef]
19. Chaudary, S.; Zahid, Z.; Shahid, S.; Khan, S.N.; Azar, S. Customer perception of CSR initiatives: Its antecedents and consequences. *Soc. Responsib. J.* 2016, 12, 263–279. [CrossRef]
20. Axjonow, A.; Ernstberger, J.R.; Pott, C. The impact of corporate social responsibility disclosure on corporate reputation: A non-professional stakeholder perspective. *J. Bus. Eth.* 2018, 151, 429–450. [CrossRef]
21. Kim, S. The process model of corporate social responsibility (CSR) communication: CSR communication and its relationship with consumers’ CSR knowledge, trust, and corporate reputation perception. *J. Bus. Eth.* 2019, 154, 1143–1159. [CrossRef]
22. Sen, S.; Bhattacharya, C.B. Does doing good always lead to doing better? Consumer reactions to Corporate Social Responsibility. *J. Mark. Res.* 2001, 38, 225–243. [CrossRef]

23. Schmeltz, L. Consumer-oriented CSR communication: Focusing on ability or morality? *Corp. Commun. Int. J.* 2012, 17, 29–49. [CrossRef]

24. Schramm-Klein, H.; Morschett, D.; Swoboda, B. Retailer corporate social responsibility: Shedding light on CSR’s impact on profit of intermediaries in marketing channels. *Int. J. Retail. Distrib. Manag.* 2015, 43, 403–431. [CrossRef]

25. Wang, Q.; Dou, J.; Jia, S. A meta-analytic review of corporate social responsibility and corporate financial performance: The moderating effect of contextual factors. *Bus. Soc.* 2016, 55, 1083–1121. [CrossRef]

26. Oh, S.; Hong, A.; Hwang, J. An analysis of CSR on firm financial performance in stakeholder perspectives. *Sustainability* 2017, 9, 1023. [CrossRef]

27. Robinson, S.; Eilert, M. The role of message specificity in corporate social responsibility communication. *J. Bus. Res.* 2018, 90, 260–268. [CrossRef]

28. Gruber, V.; Kaliauer, M.; Schlegelmilch, B.B. Improving the effectiveness and credibility of corporate social responsibility messaging: An Austrian model identifies influential CSR content and communication channels. *J. Advert. Res.* 2017, 57, 397–409. [CrossRef]

29. Liao, P.C.; Xia, N.N.; Wu, C.L.; Zhang, X.L.; Yeh, J.L. Communicating the corporate social responsibility (CSR) of international contractors: Content analysis of CSR reporting. *J. Clean. Prod.* 2017, 156, 327–336. [CrossRef]

30. Marano, V.; Tashman, P.; Kostova, T. Escaping the iron cage: Liabilities of origin and CSR reporting of emerging market multinational enterprises. *J. Int. Bus. Stud.* 2017, 48, 386–408. [CrossRef]

31. Kotler, P. A generic concept of marketing. *J. Mark.* 1972, 36, 46–54. [CrossRef]

32. Stidsen, B.; Schutte, T.F. Marketing as a communication system: The marketing concept revisited. *J. Mark.* 1972, 36, 22–27. [CrossRef]

33. Chomvilailuk, R.; Butcher, K. The impact of strategic CSR marketing communications on customer engagement. *Mark. Intell. Plan.* 2018, 36, 764–777. [CrossRef]

34. Hu, H.L.; Hsu, K.W.; Pu, Y.Y. Strategic corporate social responsibility: The new issues of enterprises’ sustainable development. *Neurol. Res. Appl. Eth.* 2006, 40, 37–50.

35. Kozlenkova, I.V.; Samaha, S.A.; Palmatier, R.W. Resource-based theory in marketing. *J. Acad. Mark. Sci.* 2014, 42, 1–21. [CrossRef]

36. Dahlsrud, A. How corporate social responsibility is defined: An analysis of 37 definitions. *Corp. Soc. Responsib. Environ. Manag.* 2008, 15, 1–13. [CrossRef]

37. Friedman, M. The social responsibility of business is to increase its profits. *N. Y. Times Mag.* 1970, 13, 122–126.

38. Mulligan, T. A critique of Milton Friedman’s essay—The social responsibility of business is to increase its profits. *J. Bus. Eth.* 1986, 5, 265–269. [CrossRef]

39. Swanson, D.L. Addressing a theoretical problem by reorienting the corporate social performance model. *Acad. Manag. Rev.* 1995, 20, 43–64. [CrossRef]

40. Robson, A.; Mitchell, E. CSR performance: Driven by TQM implementation, size, sector? *Int. J. Qual. Reliab. Manag.* 2007, 24, 722–737. [CrossRef]

41. Porter, M.E.; Kramer, M.R. The competitive advantage of corporate philanthropy. *Harv. Bus. Rev.* 2002, 80, 56–68, 133.

42. McWilliams, A.; Siegel, D.S. Creating and capturing value: Strategic corporate social responsibility, resource-based theory, and sustainable competitive advantage. *J. Manag.* 2011, 37, 1480–1495. [CrossRef]

43. Yen, G.F.; Yang, H.T. Does consumer empathy influence consumer responses to strategic corporate social responsibility? The dual mediation of moral identity. *Sustainability* 2018, 10, 1812. [CrossRef]

44. Carroll, A.B. The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Bus. Horiz.* 1991, 34, 39–48. [CrossRef]
48. Geva, A. Three models of corporate social responsibility: Interrelationships between theory, research, and practice. *Bus. Soc. Rev.* 2008, 113, 1–41. [CrossRef]
49. Kanji, R.; Agrawal, R. Models of corporate social responsibility: Comparison, evolution and convergence. *IIM Kozhikode Soc. Manag. Rev.* 2016, 5, 141–155. [CrossRef]
50. Schwartz, M.S.; Carroll, A.B. Corporate social responsibility: A three-domain approach. *Bus. Eth. Q.* 2003, 13, 503–530. [CrossRef]
51. Maignan, I. Consumers’ perceptions of corporate social responsibilities: A cross-cultural comparison. *J. Bus. Eth.* 2001, 30, 57–72. [CrossRef]
52. Ramasamy, B.; Yeung, M. Chinese consumers’ perception of corporate social responsibility (CSR). *J. Bus. Eth.* 2009, 88, 119–132. [CrossRef]
53. Arli, D.I.; Lasmono, H.K. Consumers’ perception of corporate social responsibility in a developing country. *Int. J. Consum. Stud.* 2010, 34, 46–51. [CrossRef]
54. Kolk, A.K.; Dolen, W.V.; Ma, L. Consumer perceptions of CSR: (how) is China different? *Int. Mark. Rev.* 2015, 32, 492–517. [CrossRef]
55. Abdeen, A.; Rajah, E.; Gaur, S.S. Consumers’ beliefs about firm’s CSR initiatives and their purchase behaviour. *Mark. Intell. Plan.* 2016, 34, 2–18. [CrossRef]
56. Palihawadana, D.; Oghazi, P.; Liu, Y. Effects of ethical ideologies and perceptions of CSR on consumer behavior. *J. Bus. Eth.* 2016, 69, 4964–4969. [CrossRef]
57. Abbas, M.; Gao, Y.Q.; Shah, S.S.H. CSR and customer outcomes: The mediating role of customer engagement. *Sustainability* 2018, 10, 4243. [CrossRef]
58. Hu, K.H.; Lin, S.J.; Liu, J.Y.; Chen, F.H.; Chen, S.H. The influences of CSR’s multi-dimensional characteristics on firm value determination by a fusion approach. *Sustainability* 2018, 10, 3872. [CrossRef]
59. Taylor, J.; Vithayathil, J.; Yim, D. Are corporate social responsibility (CSR) initiatives such as sustainable development and environmental policies value enhancing or window dressing? *Corp. Soc. Responsib. Environ. Manag.* 2018, 25, 971–980. [CrossRef]
60. Rodriguez-Rad, C.J.; Ramos-Hidalgo, E. Spirituality, consumer ethics, and sustainability: The mediating role of moral identity. *J. Consum. Mark.* 2018, 35, 51–63. [CrossRef]
61. Chen, H.; Kong, Y. Chinese consumer perceptions of socially responsible consumption. *SOC. RESPONSIB. J.* 2009, 5, 144–151. [CrossRef]
62. Bowman, E.H.; Haire, M. A strategic posture toward corporate social responsibility. *Calif. Manag. Rev.* 1975, 18, 49–58. [CrossRef]
63. Carroll, A.B. Ethical challenges for business in the new millennium: Corporate social responsibility and models of management morality. *Bus. Eth. Q.* 2000, 10, 33–42. [CrossRef]
64. Lantos, G.P. The boundaries of strategic corporate social responsibility. *J. Consum. Mark.* 2001, 18, 595–632. [CrossRef]
65. Novak, M. Profits with honor. *Policy Rev.* 1996, 77, 50–56.
66. Husted, B.W.; de Jesus Salazar, J. Taking Friedman seriously: Maximizing profits and social performance. *J. Manag. Stud.* 2006, 43, 75–91. [CrossRef]
67. Fontela, E.; Gabus, A. *The Delmatel Observe*; Battelle Geneva Research Center: Geneva, Switzerland, 1976.
68. Saaty, T.L. *Decision Making with Dependence and Feedback: The Analytic Network Process*; RWS Publications: Pittsburgh, PA, USA, 1996.
69. Adler, M.; Ziglio, E. *Gazing into the Oracle: The Delphi Method and Its Application to Social Policy and Public Health*; Kingsley Publishers: London, PA, USA, 1996.
70. Ou Yang, Y.P.; Shieh, H.M.; Leu, J.D.; Tzeng, G.H. A novel hybrid MCDM model combined with DEMATEL and ANP with applications. *Int. J. Oper. Res.* 2008, 5, 160–168. [CrossRef]
71. Tzeng, G.H.; Huang, J.J. *Multiple Attribute Decision Making: Methods and Applications*; CRC Press: London, UK, 2011.
72. Hsu, C.H.; Wang, F.K.; Tzeng, G.H. The best vendor selection for conducting the recycled material based on a hybrid MCDM model combining DANP with VIKOR. *Resour. Conserv. Recycl.* 2012, 66, 95–111. [CrossRef]
73. Hsu, C.C.; Liou, J.J.H.; Chuang, Y.C. Integrating DANP and modified grey relation theory for the selection of an outsourcing provider. *Expert Syst. Appl.* 2013, 40, 2297–2304. [CrossRef]
74. Chiu, W.Y.; Tzeng, G.H.; Li, H.L. A new hybrid MCDM model combining DANP with VIKOR to improve e-store business. *Knowl. Based Syst.* 2013, 37, 48–61. [CrossRef]
75. Hu, Y.C.; Chiu, Y.J.; Hsu, C.; Chang, Y. Identifying key factors for introducing GPS-based fleet management systems to the logistics industry. *Math. Probl. Eng.* 2015, 2015, 1–14. [CrossRef]

76. Cui, Q.; Wu, C.Y.; Kuang, H.B. Influencing factors research of airports Competitiveness based BP-DEMATEL model. *Syst. Eng. Theory Pract.* 2013, 33, 1471–1478.

77. Zahid, M.A.; De Swart, H. The Borda majority count. *Inf. Sci.* 2015, 295, 429–440. [CrossRef]

78. Tsao, H.G.; Yen, G.F. Examining Corporate Social Responsibility from the Perspective of Functional Coupling in System Theory—A Case Study of Working days Policy in Taiwan. *Acad. Taiwan Bus. Manag. Rev.* 2017, 13, 61–69.

79. Mellahi, K.; Frynas, J.G.; Sun, P.; Siegel, D. A review of the nonmarket strategy literature: Toward a multi-theoretical integration. *J. Manag.* 2016, 42, 143–173. [CrossRef]

80. McKinsey Insights, Sustainability’s Strategic Worth. Available online: https://www.mckinsey.com/business-functions/sustainability/our-insights/sustainabilitys-strategic-worth-mckinsey-global-survey-results (accessed on 2 June 2019).

81. The Committee for Economic Development. Available online: https://www.ced.org/reports/single/social-responsibilities-of-business-corporations (accessed on 2 June 2019).

82. Opricovic, S.; Tzeng, G.H. Compromise solution by MCDM methods: A comparative analysis of VIKOR and TOPSIS. *Eur. J. Oper. Res.* 2004, 156, 445–455. [CrossRef]

83. Donaldson, T.; Preston, L.E. The stakeholder theory of the corporation: Concepts, evidence, and implications. *Acad. Manag. Rev.* 1995, 20, 65–91. [CrossRef]

84. McWilliams, A.; Siegel, D.S. Corporate social responsibility: A theory of the firm perspective. *Acad. Manag. Rev.* 2001, 26, 117–127. [CrossRef]

85. Kim, S.; Ji, Y. Chinese consumers’ expectations of corporate communication on CSR and sustainability. *Corp. Soc. Responsib. Environ. Manag.* 2017, 24, 570–588. [CrossRef]

86. Welford, R.; Chan, C.; Man, M. Priorities for corporate social responsibility: A survey of businesses and their stakeholders. *Corp. Soc. Responsib. Environ. Manag.* 2008, 15, 52–62. [CrossRef]

87. Ariely, D.; Bracha, A.; Meier, S. Doing good or doing well? Image motivation and monetary incentives in behaving prosocially. *Am. Econ. Rev.* 2009, 99, 544–555. [CrossRef]

88. Yang, H.T.; Yen, G.F. Consumer responses to corporate cause-related marketing: A serial multiple mediator model of self-construal, empathy and moral identity. *Eur. J. Mark.* 2018, 52, 2105–2127. [CrossRef]

89. TSMC Aids 94 Schools in Recovery from Typhoon Morakot Damage. Available online: https://www.tsmc.com/download/ir/annualReports/2014/english/e_7_6.html (accessed on 25 October 2019).

90. Kaohsiung Gas Explosion Project. Available online: https://www.tsmc.com/tsmcdotcom/PRListingNewsArchivesAction.do?action=detail&newsid=THGOHIHK&language=C (accessed on 25 October 2019).

© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).