

## **An Investigation of Corporate Social Responsibility in the High-tech Industry**

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— *Review of* —  
**Integrative  
Business &  
Economics**  
— *Research* —

### **ABSTRACT**

With the increasing hollowing out of high-tech companies' assets, such as Boda Technology, Xundie Technology, Duba Electronics, they are suspected of fraudulent transactions and financial reports, hence violating the securities and exchange act, chamber of commerce law, and business encroachment, so that investors are losing their faith in the financial markets. In addition, these incidents have significantly revealed the problems that corporations lack adequate corporate governance by putting over emphasis on financial reporting information. Thus, the public cannot judge the true value of businesses simply by financial information; accordingly, the enterprise identity is seriously challenged. To investigate the normative trend of high-tech industry, this paper proposes that the relevant industries should aggressively promote the corporate social responsibility to meet the policy mechanism, principle of fairness, justice and integrity, and improve employment opportunities for a more competitive future of high-tech industry.

**Keywords:** Corporate social responsibility; hollowing out companies' assets; hierarchical analysis method (AHP).

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### **1. INTRODUCTION**

High-tech industry hollowing out cases have been frequently reported, such as Boda, Xunban, Duba, Yujia Technology and Yanghua Technology, Jiaying Electronics, Baihui, Junyi Electronic Technology, Youwang Technology. They were suspected of false transactions, beautification of financial reports, violations of the securities and exchange act, chamber of commerce law, fraud, business encroachment, and breach of trust, so that investors completely lost confidence in the capital market. The incident not only highlights the problem of insufficient corporate governance and over-emphasizes on financial reporting information. The public finds that the true value of the company cannot be judged solely by financial information when the integrity of the company is seriously challenged.

This article combines the creativity of interdisciplinary research in business and economic research, and the management of high-tech industry companies actively practices corporate social responsibility (Michael E. Porter & Mark R. Kramer, 2011) creates shared value in Harvard Business Review and addresses social needs and

challenges. This study also contributes to build a theoretical model which can be applied to Corporate Social Responsibility as well as other industrial enterprises. It not only creates commercial and economic value, but also creates value for society and the environment. The performance of the company is linked to the environmental progress of the society. Sharing value is a new way of achieving economic performance, and this concept can trigger a new business idea.

The purpose of this study is to analyze the factors that affect the influencing factors through the questionnaires of experts engaged in high-tech industry corporate social responsibility for more than 10 years, and to find out the feasible research structure.

1. This article combines the creativity of interdisciplinary research in commercial and economic research, using Taiwan's high-tech industry as a sample to confirm the relevance of factors, and screened as an evaluation factor, and a sub-leveling factor using the hierarchical analysis method (AHP). The relevant overall planning procedures proposed in the past have constructed a complete theoretical framework.

2. Through the expert questionnaire, the weights and rankings of the evaluation factors at each level of the hierarchical analysis method are analyzed, and further research is carried out to obtain the research results. The high-tech industrial enterprise management is actively implemented to practice corporate social responsibility. Strengthening the ability to manage, the company's financial information is honest and true, and achieves the creation of shared value.

3. Comply with the comprehensive business and economic research operation model, innovate research and development to create profits, strengthen the social environment and legal constraints, and enhance employment opportunities, care for employees' lives, and improve the competitiveness of national economic development through corporate social responsibility ethics and charity. We will not allow the hollowing out cases, and employees are willing to evaluate the corporate social sentiment as a happy enterprise for the benefit of the world. The business performance of the company flourishes and the business is sustainable. We will discuss the future corporate social responsibility and propose a concrete and feasible research framework for the reference of high-tech industry.

## **2. LITERATURE REVIEW**

### **2.1 Development of corporate social responsibility before 2000**

Sismondi (1773~1842) created the social economics theory exploring individual economic activities and the interaction, including the economic process of production, distribution, exchange, consumption, and the social environment referring to choices of individuals under the social environment, and to which the actions intending to change.

After the period of 1773 to 1842, social economics theory exploring the economic activities of individuals, and from the earliest world's first sociological journal created in 1895, the American Journal of Sociology published that not only a government agency, but also a company that should be trusted and accountable to the public, that proposed by a famous American sociology scholar Albi. Smal Albionw started the concept and laid down the foundation of corporate social responsibility.

Although the earliest world's first sociological journal, the publication of the American Journal of Sociology published in 1895, the concept of corporate social responsibility was not fully disseminated. Following Merrick, in 1932, proposing that it is necessary to fulfill the CSR, Peter Druck, the father of modern management, in 1939,

proposed the End of the Economic Man, the Future of Industrial Man, in 1942, and the Management in 1974, and the Management Challenges of the 21st Century in 1999 has a greater impact on society than the services and products provided by enterprises for the society.

After the work of Peter Drucker, the father of modern management in 1939, that enterprise must implement the concept of social responsibility, in 1953, Bowen, the father of Corporate Social Responsibility, considered that rewarding and satisfying society are major obligation and responsibility of a company. The company engaging business operations should actively practice corporate social responsibility, enhance contribution to national economic growth, improve the quality of life of employees, community development and social well-being, and enhance the competitive advantage between internal and external enterprises.

After Bowen, the father of corporate social responsibility fulfilling responsibilities for corporate social responsibility in 1953, the representative of the "classical school theory", Milton Friedman of Nobel laureate, and, in 1970, "Corporate administrators to the shareholder is being responsible for the business operation and the maximum profit, and paying taxes to fulfill the government's obligations", regard corporate social responsibility as an instrumental means for some purpose.

Following the representative of the "classical school theory", Milton Friedman, after 1970, regarded corporate social responsibility as fulfilling the government's responsibility in the tax regulations, against the social responsibility of classical economist Milton Friedman (1970). The only company social responsibility is to obtain the maximum profit for shareholders that is illegal to engage in activities that using non-creating profits from corporate resources. In favor of social responsibility economist Arrow (1973), in addition to pursuing profits, companies should be responsible for other societies because the entire economic activities of enterprises are closely related to other societies from the aspects of law and sociology.

Following the economist Kenneth J. Arrow (1973) that Corporate Social Responsibility corresponds to rights, Davis (1976) proposed that the greater the scale of corporate social responsibility, the greater the influence of enterprises on society. The social, corporate, and economic aspects of the organization during a certain period of time, that Carroll (1991) proposed Corporate Social Responsibility Pyramid expectations in four dimensions corresponding to the expectations of stakeholders such as business owners, shareholders, employees, consumers and communities.

Carroll and Archie (1996) then divides corporate social responsibility into a four-tier model, indicating the goals that companies should achieve all levels and present them with specific activities.

(1) Economic aspect: Enterprises should focus on cost reduction, profit creation, and social and economic growth.

(2) Legal aspect: The law stipulates compliance with environmental protection, consumer protection, Labor law and other relevant Laws and regulations, which is the minimum requirement of society for corporate behavior.

(3) Ethical aspect: In addition to the provisions of the original law, the actions of enterprises must be fair, conform to justice, and avoid harms.

(4) Charity aspect: Contributing the resources of the company to improve the quality of life, and the spirit of philanthropy which is the highest level of social responsibility at the top of the pyramid.

Following Carroll's (1991) Corporate Social Responsibility Pyramid, the economic

aspect is based on the maximization of corporate operation profit, and the legal aspect emphasizes that enterprises must abide by the laws and regulations. Therefore, the economic and legal aspects are the lowest standards for society and enterprises. It is necessary to meet the expectations of ethics and social customs, regarding the charity as the highest requirement. Emphasis is placed on encouraging employees to participate in social charity activities as volunteers to enhance the social goodness and become a good corporate citizen.

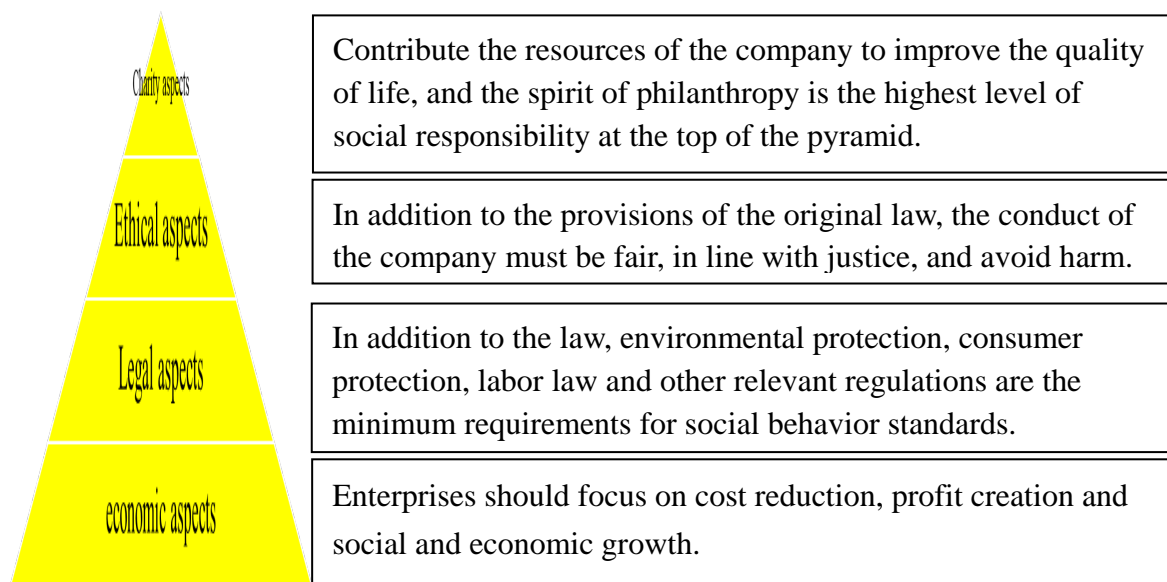


Figure 1. Corporate Social Responsibility Pyramid (Carroll, 1996)

## 2.2 Development of corporate social responsibility after 2000

After 2000, the development of corporate social responsibility concept has been continuously updated with the progress of society. At the World Social Development Summit held by UN Secretary-General Kofi Annan, "Social Rules" and "Global Compact", the concept plan of the United Nations Global Covenant was officially launched at the United Nations Headquarters in July 2000.

McWilliams et al. (2006) stated that high-tech has an interdependent relationship and provides the same products and services at a small price. It is recommended that high-tech industry implement CSR to increase competitive advantage and profit. Cowper-Smith and Danuta de Grosbois (2011) consider CSR to be an evolving concept, referring to a company's ethical behavior towards society and developing a definition of CSR: CSR is a company's constant commitment to doing ethical things and committing to economic development. Meanwhile, the quality of life of employees, their families, the community and the general public is enhanced. As the aviation industry continues to develop, more and more high-tech companies are implementing and announcing CSR.

"Modern View Theory" considers that under the complex dynamic society, enterprises should undertake the task of sustainable long-term development of corporate social responsibility. Enterprises can maintain friendly relations with social actions through the practical tasks of corporate social responsibility with a modern perspective. After the theory proposed, Gordon 2001 advocated strengthening the trust of investors, increasing the source of funds, creating a good image, enhancing the centripetal force of employees, strengthening the source of innovation, carrying out social responsibility

and charity, and increasing the competitive advantage of enterprises.

## **2.3 Legal aspects of factors affecting CSR**

### **2.3.1 Economic regulations**

Code of Practice for Integrity of Listed Companies in 2014. Article 16; 2016 Code of Practice for Corporate Social Responsibility: Article 9 is committed to sustainable business objectives, and the process of research and development, procurement, manufacturing, supply or sale of products and services should be followed. Regulations and international standards to ensure products reduce costs and service security, profit creation policies to avoid harm to consumers or other stakeholders, and to implement economic growth in operating activities to prevent products or services from directly or indirectly harming consumers or the interests of other interested parties, the importance of health and safety, and the fact that goods and services endanger the safety and health of consumers or other interested parties. In principle, the product should be recycled or stopped. Posner (1986) stated the enterprise implements the economic aspect of social responsibility.

### **2.3.2 Legal regulations**

Code of Practice for Corporate Social Responsibility of Listed Companies: Article 12, Article 16, Article 20, Article 18; 2016 Code of Practice for Corporate Social Responsibility: Article 12; 2008 ISO 26000 Social Responsibility Guidelines - 4.6 Respect the legal provisions, 4.7 respect international code of conduct, 4.8 respect human rights, implement to create a level playing field, enterprises should follow the labor laws and regulations and relevant international norms, properly protect the environment, affect the ecological benefits, promote and educate consumers protect the concept of sustainable consumption, engage in research and development, production and service operations, reduce the impact of the company's operations on the natural environment, and should be committed to environmental sustainability objectives when implementing business activities (Miller 1995). The enterprise implements the legal aspects of social responsibility.

### **2.3.3 Ethical regulations**

Article 10 of the Code of Practice for Corporate Social Responsibility of Listed Companies in 2016, 2008 ISO26000 Social Responsibility Guidelines - 4. 8 Respect for Human Rights, Article 16 of the Code of Conduct for Integrity of Listed Companies in 2014 (Preventing Products or Services from Injuring Stakeholders), In addition to the competitive advantage of corporate responsibility, engaging in operational activities should follow relevant laws and regulations, avoid engaging in unfair competition, implement to create a level playing field, and fulfill tax obligations. Anti-bribery greed is in line with justice and avoids harm. Thus, this shows the importance of protecting the rights and interests of other stakeholders and establishing an appropriate management system. If it proves that products and services are harmful to the safety and health of consumers or other stakeholders, then they should recycle the products or stop their services. (1989), implementing the ethical aspects of social responsibility for the enterprise

### **2.3.4 Charity regulations**

Article 2 of the Code of Practice for Corporate Social Responsibility of Listed

Companies in 2016; 2016 Code of Practice for Corporate Social Responsibility: Article VIII; not only by the attention of investors, but also encourage listed companies to engage in business operations and actively practice corporate social responsibility. In line with the international trend of balancing environmental, social and corporate governance development, and through corporate responsibility, enhance the national economic contribution, improve social philanthropy, contribute to resources to the community, improve the quality of life of employees, and promote the competitive advantage of corporate responsibility. Sex Post (1993), and the implementation of social responsibility for charity.

### 3. RESEARCH METHODS

To explore the various factors affecting corporate social responsibility and compare their importance, first discuss and analyze the literature related to this research and the topics for high-tech industry, and second confirm the influence through expert questionnaire survey. The appropriateness of the factors regarding a sub-facial factor of the Analytic Hierarchy Process (AHP) through expert interviews, from those the weights and rankings of the evaluation factors at each level of the hierarchical analysis method are analyzed and investigated, and results are obtained.

#### 3.1 Research Architecture

Based on the second chapter of literature collection and discussion, this chapter is to construct the conceptual map of the research structure, and the influencing factors, and integrates four main aspects and twelve sub-aspects.



(Carroll 1996)

Figure 2. Research architecture concept

#### 3.2 Analytic Hierarchy Process

This research analysis uses the Analytical Hierarchy Process (AHP) to explore the weights of various factors affecting the key factors of corporate social responsibility in high-tech industry through questionnaires, and to conduct in-depth interviews with corporate social responsibility experts. The Expert Choice 2000 analysis stratifies the

complex evaluation factors and finally derives the weight of each influencing factor, allowing decision makers to prioritize based on the weights.

**3.2.1 Questionnaire survey**

The research object is mainly to issue AHP questionnaires for CSR experts in the high-tech industry. A total of 50 questionnaires were sent out, 45 were recovered with the recovery rate was 90%, and the effective questionnaire was 31. The results were tested by Expert Choice 2000 software, complying with consistent consistency, effective questionnaire recovery rate of 69%.

Table 1. Questionnaire collection information

Questionnaire information	Number of samples	percentage
Actual issue of the questionnaire	50	100%
Recycling questionnaire	45	90%
Invalid questionnaire	14	31%
valid questionnaire	31	69%

Table 2. Basic information sheet of the questionnaire

item	Questionnaire expert basic information		
Education level	Colleges and universities	21	68%
	master's degree	10	32%
	Doctor	0	0%
Engaged in corporate social responsibility	10~20 years	22	71%
	21~30 years	9	29%
	31 years or more	0	0%
Position	Supervisor level	1	3%
	Non-supervisor	30	97%
Interviewed unit	A total of 31 companies		

**3.2.2 Questionnaire survey on main aspectss**

Table 3. R.I Stochastic Indicators Table

**This order is 4, so 0.90 is used.**

<b>Order</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
<b>R.I.</b>	<b>0.00</b>	<b>0.00</b>	<b>0.58</b>	<b>0.90</b>	<b>1.12</b>	<b>1.24</b>	<b>1.32</b>	<b>1.41</b>	<b>1.45</b>	<b>1.49</b>	<b>1.51</b>	<b>1.48</b>	<b>1.56</b>	<b>1.57</b>	<b>1.58</b>

**Source: (Saaty, 1980)**

Discussion on the influencing factors of corporate social responsibility - Taking high-tech industry as an example. There are four influencing factors in the main structure of this study. The economic, legal, ethical, and charitable aspects, the RI stochastic indicator table is 4, so the RI stochastic indicator uses 0.90.

Pairwise comparison matrix	Economic aspects	Legal aspects	Ethical aspects	Charity aspects	Hierarchical weight A	Consistent vector value B	$\Sigma=B/A$
Economic aspects	1	1.211	1.603	3.829	0.368	1.477	4.013
Legal aspects	0.826	1	1.441	2.767	0.301	1.21	4.0174
Ethical aspects	0.624	0.694	1	2.821	0.235	0.944	4.018
Charity aspects	0.261	0.361	0.355	1	0.096	0.384	4.002
						$\Sigma$	16.050
$\lambda(\Sigma/4)$	4.013	C.I(( $\lambda-4$ )/(4-1))	0.004	C.R(C.I./R.I)	0.005		

Table 4. Main suraspects pairwise comparison matrix

The obtained pairwise comparison matrix A uses the basic theory of eigenvectors to calculate the eigenvector (Eigen-vector) and the eigenvalue (Eigen-value), and obtains the relative weight between the factors, through the software (Expert Choice 2000) to get relative weight .

Hierarchical weight : A

$$A = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \dots & \vdots \\ a_{n1} & a_{n2} & \dots & a_{nn} \end{bmatrix} = \begin{bmatrix} 1 & a_{12} & \dots & a_{1n} \\ 1/a_{21} & 1 & \dots & a_{2n} \\ \vdots & \vdots & \dots & \vdots \\ 1/a_{n1} & 1/a_{n2} & \dots & 1 \end{bmatrix} = \begin{bmatrix} w_1/w_1 & w_1/w_2 & \dots & w_1/w_n \\ w_2/w_1 & w_2/w_2 & \dots & w_2/w_n \\ \vdots & \vdots & \dots & \vdots \\ w_n/w_1 & w_n/w_2 & \dots & w_n/w_n \end{bmatrix} = \begin{pmatrix} 0.368 \\ 0.301 \\ 0.235 \\ 0.096 \end{pmatrix}$$

Consistent vector value: B=

$$B = \begin{pmatrix} (1*0.368)+(1.211*0.301)+(1.603*0.235)+(3.829*0.096) \\ (0.826*0.368)+(1*0.301)+(1.441*0.235)+(2.767*0.096) \\ (0.624*0.368)+(0.694*0.301)+(1*0.235)+(2.821*0.096) \\ (0.261*0.368)+(0.361*0.301)+(0.355*0.235)+(1*0.096) \end{pmatrix} = \begin{pmatrix} 1.477 \\ 1.21 \\ 0.944 \\ 0.384 \end{pmatrix}$$



$$\Sigma=B/A= \begin{pmatrix} 1.477 / 0.368 \\ 1.21 / 0.301 \\ 0.944 / 0.235 \\ 0.384 / 0.096 \end{pmatrix} = \begin{pmatrix} 4.013 \\ 4.017 \\ 4.018 \\ 4.002 \end{pmatrix}$$

$$\lambda(\Sigma/4)= \frac{4.013+4.017+4.018+4.002}{4} =4.013$$

$$C.I= \frac{(\lambda-4)}{(4-1)} = \frac{4.013-4}{3} = 0.004 <0.1$$

$$C.R= \frac{C.I}{R.I} = \frac{0.004}{0.90} = 0.005 <0.1$$

(1) After comparing the two groups, the experts select different values of important levels and perform numerical calculations to obtain the level weight values of “Economic side” 0.368, “legal aspects” 0.301, “ethical aspects” 0.235, charity aspects 0.096, research results. Showing "Economic Plane" Rank 1, "Legal Aspects" Rank 2, "Ethical Aspects" Rank 3, "Charity Aspects" Rank 4, "Economic Plane" is the main influence on the factors affecting corporate social responsibility - with aerospace as a key factor in the industry, it shows that the Economic aspect accounts for this important ratio. While pursuing Economic growth, it also attaches importance to the impact on all stakeholders and uses the concept of “taking it from society and using it in society” to fulfill the corporate society. The company should strive to achieve a balance of interests among shareholders, employees and all stakeholders, reduce the risks aspects by the business, strengthen the business management, and thus enhance the company's sustainable competitiveness. The legal, ethical, and charitable aspects show that there is no economic enterprise that cannot perform legal, ethical, and charitable aspects.

(2) Consistency Index, C.I.

$$\lambda(\Sigma/4)= 4.013+4.017+4.018+4.002/4=4.013$$

$$C.I.= (\lambda_{max} -n) / (n-1) =4.013-4/3=0.004$$

On the basis of this theory, we assume that A is a matrix that conforms to consistency, because of the subjective judgment of the creator, matrix A may not conform to the consistency. The result of the evaluation must pass the consistency check before it can be displayed. The judges' judgments are consistent, the evaluation criteria  $\Sigma 16.0504$ ,  $\lambda(\Sigma/4)$  eigenvalue 4.013; Consistence Index (CI)  $CI((\lambda-4)/(4-1))$  0.004,  $CI \leq 0.1$ , indicating that the validity weight of the consistency check of the matrix is within the acceptable range, and the judgment of the expert to fill the questionnaire is consistent.

(3) Consistency Ratio, C.R.

$$C.R.=C.I./R.I.= 0.004/0.90= 0.005$$

According to a study conducted by Dank Ridge National Laboratory and Wharton School, the positive reciprocal matrix generated from the evaluation scale produces different CI values under different stages, called the Random Index (RI= 0.90), and its value varies with the matrix. The increase of the order, and the CR(CI / RI) value refers to the ratio of the consistency index (CI) and the random index (RI) value under the same horizontal matrix, consistency ratio, CR=0.005. The consistency has been verified and the error values are all less than the acceptable range of 0.1. The consistency of the questionnaires displayed by the expert questionnaire is very good.

### 3.3. Questionnaire survey on sub-aspectss

#### 3.3.1 Economic aspect

In this study, there are three influencing factors in the Economic aspects, namely cost reduction, profit creation, and Economic growth. The RI stochastic indicator has an order of 3, so the RI random index was 0.58.

Table 5. Economic aspects pairwise comparison matrix

Pairwise comparison matrix	Cost reduction	Profit creation	Economic growth	Hierarchical weight A	Consistent vector value B	$\Sigma=B/A$
Cost reduction	1	0.351	0.800	0.203	0.613	3.021
Profit creation	2.850	1	1.523	0.506	1.528	3.019
Economic growth	1.251	0.657	1	0.291	0.877	3.014
					$\Sigma$	9.054
$\lambda(\Sigma/3)$	3.018	$C.I.((\lambda-3)/(3-1))$	0.009	$C.R.(C.I./R.I)$	0.016	

(1) The weight of the Economic aspects and sub-aspects influencing factors, and the pairwise comparison matrix shows the factors affecting corporate social responsibility - the key factors of the "Economic aspects" sub-leveling in the key factors of the high-tech industry. They are "Economic side", cost reduction, weight value 0.203, "Economic side", profit creation is 0.506, Economic growth is 0.291, research results show profit creation ranks 1, economic growth ranks 2, cost reduction ranks 3; profit creation is the factor affecting corporate social responsibility in the secondary aspects of "Economic aspects".

(2) Consistency Index, C.I.

$$\lambda(\Sigma/3)= 9.054/3= 3.018$$

$$C.I.= C.I.((\lambda-3)/(3-1))= 3.018-3/2 =0.009$$

On the basis of this theory, assuming that A is a matrix that conforms to consistency, but because of the subjective judgment of the creator, matrix A may not conform to the consistency, but the result of the evaluation must pass the consistency check before it can be displayed. The judges' judgments are consistent, the evaluation criteria  $\Sigma$ 9.054,

$\lambda(\sum/3)$  eigenvalues 3.018; Consistence Index (CI)  $CI((\lambda-3)/(3-1))=0.009$ ,  $CI \leq 0.1$ , indicating that the validity weight of the consistency check of the matrix is within the acceptable range, and the judgments of the experts filling the questionnaire are consistent.

(3) Consistency Ratio, C.R.

$$C.R.=C.I./R.I.= 0.009/0.58 =0.016$$

According to a study conducted by Dank Ridge National Laboratory and Wharton Business School, the positive reciprocal matrix generated from the evaluation scale produces different CI values under different orders, called the Random Index (RI). The value with CR (CI / RI) value refers to the ratio of the consistency index (CI) to the random index (RI=0.58) value under the same horizontal matrix. Consistency ratio, CR=0.016 verifies the consistency of the pairwise comparison matrix and the error range is less than the acceptable range of 0.1, indicating that the consistency of the expert questionnaire is quite good.

### 3.3.2 Law aspect

The weight analysis of the factors affects the next aspects of the law. There are three influencing factors in the sub-aspects under the “Legal Aspects” of this study, namely, labor regulation, environmental protection, and consumer protection. The RI stochastic indicator has an order of 3, RI random index is 0.58.

Table 6. Legal aspects pairwise comparison matrix

Pairwise comparison matrix	Labor law	Environmental protection	Consumption protection	Hierarchical weight A	Consistent vector value B	$\sum=B/A$
Labor law	1	1.306	1.088	0.372	1.131	3.039
Environmental protection	0.765	1	1.478	0.345	1.048	3.038
Consumption protection	0.919	0.676	1	0.283	0.858	3.032
					$\sum$	9.110
$\lambda(\sum/3)$	3.037	$C.I.((\lambda-3)/(3-1))$	0.018	C.R.(C.I./R.I)	0.031	

(1) The weight of the influence factors of the Legal aspects and sub-aspects pairwise comparison matrix shows the factors affecting corporate social responsibility - the key factors of the high-tech industry as the "Legal aspects" of sub-aspects. The hierarchy weights are Labor law, Environmental Protection and, Consumer Protection. After comparison, Labor Code is 0.372, Environmental Protection is 0.345, Consumption Protection is 0.283, the research results show that the expert selection Labor law regulations ranks 1, environmental protection ranks 2, consumption protection ranks 3; labor legislation is the secondary aspects of "legal aspects". With an efficient legal system and clear labor laws, companies should first fulfill the legal aspects of corporate social responsibility and then voluntarily implement moral responsibility.

(2) Consistency Index, C.I.

$$\lambda(\sum/3)= 9.110/3=3.037$$

$$C.I.= C.I.((\lambda-3)/(3-1))=3.037-3/2 =0.018$$

On the basis of this theory, assuming that A is a matrix that conforms to consistency, but because of the subjective judgment of the creator, matrix A may not conform to the consistency, but the result of the evaluation must pass the consistency check before it can be displayed. The judges' judgments are consistent, the evaluation criterion  $\lambda(\Sigma/3)$  characteristic value is 3.037; the consistency index (CI)  $CI((\lambda-3)/(3-1))=0.018$ ,  $CI \leq 0.1$ , indicates the consistency of the matrix.

(3) Consistency Ratio, C.R.

$$C.R.=C.I./R.I.= 0.018/0.58 =0.031$$

According to a study conducted by Dank Ridge National Laboratory and Wharton Business School, the positive reciprocal matrix generated from the evaluation scale produces different CI values under different orders, called the random index (Random Index, RI=0.58). The value with the CR (CI / RI) value refers to the ratio of the consistency index (CI) to the random index (RI) value under the same horizontal matrix. Consistency ratio, CR=0.031, verifies the consistency of the pairwise comparison matrix, and the error value is less than the acceptable range of 0.1, showing that the volume consistency is quite good.

### 3.3.3 Ethical aspect

Weight analysis of the factors affecting the next aspects of the ethical aspects is analyzed. The sub-aspects under the "ethical aspects" of this study have three influencing factors, namely, fairness, conformity, and avoidance of harm. The order of the RI stochastic indicator is 3, so the RI random indicator uses 0.58.

Table 7. Ethical aspects pairwise comparison matrix

Pairwise comparison matrix	Principles of fairness	Principles of justice	Harm avoidance	Hierarchical weight A	Consistent vector value B	$\Sigma=B/A$
Principles of fairness	1	1.417	0.995	<b>0.373</b>	<b>0.906</b>	<b>2.429</b>
Principles of justice	0.706	1	1.191	<b>0.314</b>	<b>1.105</b>	<b>3.520</b>
Harm avoidance	1.005	0.840	1	<b>0.313</b>	<b>1.062</b>	<b>3.393</b>
					$\Sigma$	<b>9.342</b>
$\lambda(\Sigma/3)$	3.114	$C.I.((\lambda-3)/(3-1))$	0.057	$C.R.(C.I./R.I)$	0.098	

(1) The weight of the sub-aspects influencing factors of the "Ethical side" and the pairwise comparison matrix show the influencing factors of corporate social responsibility - the key factors of the "Ethical aspects" in the key factors of the high-tech industry in accordance with fairness is 0.373, conformity with justice is 0.314, avoid injury is 0.313, research results show conformity to fairness ranks 1, consistent with justice ranks 2, avoid injury ranks 3; conformity to fairness is "ethics". Under the ethical standards, the company fulfills its corporate social responsibility, creates the value of stakeholders, and maximizes the fairness for consumers, employees,

shareholders and the community.

**(2) Consistency Index, C.I.**

$$\lambda(\sum/3) = 9.342/3 = 3.114$$

$$C.I. = C.I.((\lambda-3)/(3-1)) = 3.114 - 3/2 = 0.057$$

On the basis of this theory, assuming that A is a matrix that conforms to consistency, but because of the subjective judgment of the creator, matrix A may not conform to the consistency, but the result of the evaluation must pass the consistency check before it can be displayed. The judgment of the creator is consistent, the evaluation criteria  $\sum = 9.342$ ,  $\lambda (\sum / 3)$  eigenvalue 3.114; Consistence Index (CI)  $CI ((\lambda-3) / (3-1)) = 0.057$ ,  $CI \leq 0.1$ , indicating that the effective weight of the matrix's consistency check is within the acceptable range, and the judgment of the expert's questionnaire is consistent.

**(3) Consistency Ratio, C.R.**

$$C.R. = C.I./R.I. = 0.057/0.58 = 0.098$$

According to a study conducted by Dank Ridge National Laboratory and Wharton Business School, the positive reciprocal matrix generated from the evaluation scale produces different CI values under different orders, called the random index Random Index,  $RI=0.58$ . The value with  $CR (CI / RI)$  value refers to the consistency index (CI) and the random index ( $RI = 0.58$ ), consistency ratio,  $CR=0.098$  under the same horizontal matrix, the consistency of the pairwise comparison matrix. An acceptable range of error values less than 0.1 indicates that the volume consistency is quite good.

**3.3.4 Charity aspect**

The weight analysis of the factors affecting the next aspects of the charity aspects is analyzed. The sub-aspects under the charity aspects of this study have three influencing factors, namely, contributing resources, improving life, and philanthropy. The RI stochastic indicator has an order of 3, so the RI random index was 0.58.

Table 8. Charity aspects pairwise comparison matrix

Pairwise comparison matrix	Resources contribution	Life Improvement	Love charity	Hierarchical weight A	Consistent vector value B	$\sum=B/A$
Resources contribution	1	0.399	2.006	0.271	0.822	3.033
Life Improvement	2.509	1	2.915	0.567	1.719	3.032
Love charity	0.499	0.343	1	0.162	0.492	3.035
					$\sum$	9.100
$\lambda(\sum/3)$	3.033	$C.I.((\lambda-3)/(3-1))$	0.017	$C.R.(C.I./R.I)$	0.029	

(1) The level weights of the “Charity Aspects” sub-dimension are reporting resources, 0.271, improving life, 0.567, Pink Oi Charity, 0.162, and the research results show improving life ranks 1, contributing resources ranks 2, Pink Oi Charity ranks 3; improving life is a discussion of the factors affecting corporate social responsibility in the secondary aspects of "Charity Aspects" - taking the high-tech industry as a key factor, and investing resources to solve social or environmental problems through

business models or participating in community development and community education to promote community development and improving the quality of life. Employees are also members of the community. To improve employee life, it is necessary to be loyal to the company, maintain good relations between employees and employers, and employers should take care of their responsibilities. In order to work together for the company's goals, employee loyalty cannot be bought only by salary, companies must be kind to employees, gain the trust of employees, in exchange for employee loyalty, and enterprises should do their best to fulfill their social responsibilities.

(2) Consistency Index, C.I.

$$\lambda(\sum/3) = 9.100/3 = 3.033$$

$$C.I. = C.I.((\lambda-3)/(3-1)) = 3.033-3/2 = 0.017$$

On the basis of this theory, assuming that A is a matrix that conforms to consistency, but because of the subjective judgment of the creator, matrix A may not conform to the consistency, but the result of the evaluation must pass the consistency check before it can be displayed. The judges' judgments are consistent, the evaluation criteria  $\sum = 9.100$ ,  $\lambda(\sum/3)$  eigenvalues 3.033; consistency index (CI)  $CI((\lambda-3)/(3-1)) = 0.017$ ,  $CI \leq 0.1$ , indicating that the effective weight of the matrix's consistency check is within the acceptable range, and the judgment of the expert's questionnaire is consistent.

(3) Consistency Ratio, C.R.

$$C.R. = C.I./R.I. = 0.017/0.58 = 0.029$$

According to a study conducted by Dank Ridge National Laboratory and Wharton Business School, the positive reciprocal matrix generated from the evaluation scale produces different CI values under different orders, called the random index,  $RI=0.58$ . The value with CR (CI / RI) value refers to the consistency index (CI) and the random index,  $RI = 0.58$ , consistency ratio,  $CR=0.029$  under the same horizontal matrix and the consistency of the pairwise comparison matrix. An acceptable range of error values less than 0.1 indicates that the volume consistency is quite good.

## 4. CONCLUSION AND DISCUSSION

### 4.1 Research findings

The increasing outbreaks of hollowing out company's assets of high-tech industries being suspected of fraudulent transactions and financial reports, violating the securities and exchange act, chamber of commerce law, and business encroachment have apparently revealed the problems that the corporation lacks adequate corporate governance. Thus, the public cannot judge the true value of businesses simply by financial information; accordingly, the enterprise identity is seriously challenged.

By exploring the influence of various factors in the establishment of CSR, it is recommended that the high-tech industry actively practice corporate social responsibility. The responsibility of social and legal constraints for the survival and development, and through the research and development of CSR innovation, the enterprises create profits, improve employment opportunities and lives, strengthen external competitiveness, enhance internal advantages and work efficiency, meet customer needs, seek sustainable development, and improve the competitiveness of national economic development for the reduction of hollowing out company's assets events. Subsequently, new solutions are proposed for research references.

From the research expert questionnaire, the economic aspect is the key factor for the main aspects, and profit creation, labor regulation, conformity to fairness, life

improvement are key factors for sub-aspects. Meanwhile, it is the way for social and legal constraints, survival and development for high-tech industry enterprise management to practice CSR through enterprise social responsibility innovation research and development, create profit opportunities, enhance employment opportunity, strengthen external competitiveness, enhance internal advantages, improve work efficiency, meet customer needs, and strive for sustainable development of enterprises and improve the competitiveness of national economic development.

#### **4.2 Research contribution**

Through the literature review, theoretical framework establishment, expert questionnaire survey, and in-depth interviews, this research characterizes and contributes to the following.

By integrating the relevant planning procedures proposed by scholars in the past, a complete theoretical framework was constructed.

The theoretical framework can be applied to the social responsibility management and planning procedures of high-tech industry enterprises. Additionally, it can be extensively applied to other industrial enterprise social responsibility management planning procedures with modification.

The proposed theoretical framework can be applied to the industrial practices of the high-tech industry emphasizing great importance to corporate social responsibility for reducing the hollowing out company's assets events, proposing a new set of solutions to effectively improve efficiency and performance of enterprise management.

At present, the corporate social responsibility in Taiwan's hollowing out of high-tech industry doesn't accounts for a high rate and is not willing to study because of the obstacles, difficulties of data collection and so on. This research is focusing on the information referring to the economy, the legal, the ethical, and the charity aspects that have made this research valuable and practical.

The purpose of this study is to analyze the factors that affect the influencing factors through the questionnaires of experts engaged in high-tech industry corporate social responsibility for more than 10 years, and to find out the feasible research structure. The result is to provide research contributions for business management:

1. This article combines the creativity of interdisciplinary research in commercial and economic research, using Taiwan's high-tech industry as a sample to confirm the relevance of factors, and after screening as an evaluation factor, and a sub-leveling factor of the hierarchical analysis method (AHP). The relevant overall planning procedures proposed in the past have constructed a complete theoretical framework.

2. Through the expert questionnaire, the weights and rankings of the evaluation factors at each level of the hierarchical analysis method are analyzed, and further research is carried out to obtain the research results, and the high-tech industrial enterprise management is actively implemented to practice corporate social responsibility. Strengthening the ability to manage, the company's financial information is honest and true, and achieves the creation of shared value.

3. Comply with the comprehensive business and economic research operation model, innovate research and development to create profits, strengthen the social environment and legal constraints, and enhance employment opportunities, care for employees' lives, and improve the competitiveness of national economic development through corporate social responsibility ethics and charity. We will not allow hollowing out cases, and employees are willing to evaluate the corporate social sentiment as a happy enterprise

for the benefit of the world. The business performance of the company flourishes and the business is sustainable. We will discuss the future corporate social responsibility and propose a concrete and feasible research framework for the reference of high-tech industry.

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