

Article

The Corporate Shared Value for Sustainable Development: An Ecosystem Perspective

Ta-Kai Yang ¹ and Min-Ren Yan ^{2,*}

¹ Department of International Business Administration, Chinese Culture University, Taipei City 106, Taiwan; tkyang@sce.pccu.edu.tw

² Institute for Innovation Economy, College of Business, Chinese Culture University, Taipei City 106, Taiwan

* Correspondence: ymr3@faculty.pccu.edu.tw

Received: 29 January 2020; Accepted: 13 March 2020; Published: 17 March 2020



Abstract: While corporate social responsibility (CSR) is prevailing, the concept of creating shared value (CSV) by coordinating business activities and social concerns brings a great opportunity to transforming the business model for sustainable development. To better understand the systems comprising corporate shared value chains would be beneficial to economics, society, and sustainability. This study refers to the ecosystem as the theoretical lens in the exploration of the CSV components and contexts, and takes Macy's as a focal case. In terms of academic contributions, this study generalizes the CSV components, including markets, social innovations, social performances, new business models, corporate entrepreneurship, and social network support. The research findings contribute to conceptualize and systemize the concept of CSV. In terms of practical contributions, the contexts for the operation of CSV, as summarized by this study, can serve as a template for corporate planning of CSV activities and sustainable development.

Keywords: ecosystem; creating shared value; corporate social responsibility; sustainable development; systems thinking; social innovation

1. Introduction

Stakeholders are increasingly concerned with the social issues arising from the process of maximizing profits by companies in today's business environment. Examples include air and water pollution in Europe, child labor in Asia, employee rights in North America, and global climate change and human rights issues in Africa. Corporate sustainability requires accountability to shareholders, employees, customers, and suppliers, as well as to the environment and society, in order to achieve business sustainability and social prosperity [1–3]. Therefore, it is imperative for companies to balance financial performance with corporate social responsibility (CSR).

There is extensive academic research on the relation between corporate social responsibility (CSR) and firm performance in an aura [4–7]. From a practical point of view, it often takes a while for CSR activities to achieve meaningful benefits [8]. This means it is difficult to explain a correlation between corporate social responsibility (CSR) and firm performance with a simple governance mechanism.

The term “creating shared value” (CSV) was coined by Porter and Kramer [9,10]. They proposed that companies may use policies and operating practices to synchronize the progress of the economy and the society, and enhance their own corporate advantages. The concept of CSV arises in response to the deficiency of CSR arguments [11]. More specifically, CSV posits that commercial activities can create value via economic and social aspects [1,2]. This concept explains the question of why organizations need to care about social concerns not addressed by the concept of CSR. However, it has also created controversies. For example, Crane, Palazzo, Spence and Matten [12] contended that the idea of CSV overlaps with that of CSR, meaning it is essentially a shadow concept regarding the role of corporations

in society [13–16]. Dubois and Dubois [17] also thought that the concept is part of sustainability and far from the original. To date, the term CSV only appears mostly in magazines or reviews for practitioners, and there is little in-depth analysis available in academic literature [18]. The reason is that there is a lack of a conceptualized measurement method for this fuzzy concept [19], thus, the difference between CSV and CSR remains unclear. Although some studies have been conducted to clarify the relation between the two, for example, Porter and Kramer [20] believed that CSV is different from CSR, and CSV is a transformational model leading to continued change of commercial behavior; Awale and Rowlinson [21] also proposed a CSV-competitiveness conceptual framework by articulating how the combination of CSV, social issues, and business opportunities can create corporate advantages. However, this conceptual explanation is not supported by empirical analysis, nor does it provide a detailed method to achieve any competitive edge with the CSV system. This study seeks to construct the CSV system by identifying the nature of each component in its ecosystem, as based on the open systems perspective, where the purpose is to determine a precise definition of CSV and resolve the conflicting viewpoints in literature.

This study attempts to make the following two contributions to the CSV literature. First, this study seeks to construct a CSV system. Based on the ecosystem perspective, the shared value is a system with path-dependent components to create value activities [22]. This study presents an empirical examination of a CSV ecosystem model. Second, the research findings of this study can provide some explanation about CSR and CSV. More importantly, this study intends to provide new insight to the integration of social innovations and value activities into the CSV system.

In the remainder of this manuscript, we introduce the theoretical background of CSV, including a discussion of CSV. Theoretical lenses are then advanced and explained, with methodology, research findings, and implications following.

2. Literature Review

2.1. Theoretical Background of the CSV Concept

Porter and Kramer [9,10] defined CSV as the activities organized for one of three purposes, i.e., products, value chains, and cluster creation, and that there is positive influence on social benefits and organizational benefits. More specifically, the three ways to create societal value are reconceiving products and markets; redefining productivity in the value chain; and building supportive industry clusters at the company's locations. Each way is part of a virtuous circle for shared value, and focuses on the creation of opportunities for others by enhancing the value of any party concerned. The concept of shared value redefines the boundaries of capitalism. The connection of corporations and societal improvements can facilitate many new ways to create new needs, efficiency gains, differentiations, and market expansions.

Previous studies have indicated that shared value appears to be more of a buzzword than a theoretical concept [19]. Therefore, it is essential to clarify the meanings of CSV. First, it determines the cost of shared benefits, including policies, operating activities, and options, meaning it is not just about benefits. This study explains the reasons for different empirical results in literature regarding the influence of CSR on organizational performances. Second, it can illustrate the outcomes of CSV. Literature suggests that CSV outcomes include competitive advantages, social and economic status [9,10], economic value [23,24], environmental value [24], firm values [25], societal value [24,26], etc. While the definition of each outcome depends on the research contexts [27,28], an examination of the outcomes will highlight the needs of stakeholders. Value creation in society is based on human needs [29–31]. Thus, clear definitions can explain the questions regarding what and how these needs are created. Finally, it can identify the beneficiaries of CSV outcomes. The creation of shared value involves individuals, social groups, organizations, and the environment, thus, it is an interrelated process with various stakeholders, including companies, value chain partners, and society [15,25,32].

2.2. The Wisdom of Corporate Shared Value

Both CSV and CSR are based on the theory of doing well by doing good; however, due to the differences in business philosophies, driving forces, characteristics, and implications, there are debates in literature [12]. CSV seeks to create value by integrating social and environmental issues into business operations [33]; while CSR is considered according to the peripheral activities of businesses and the moral responsibilities assumed by companies. The sustainable development pursued by the corporate are the most important driving force of CSV. In contrast, CSR is an action under external pressure to meet the expectations of stakeholders. In terms of research directions, the research stream of CSR follows in the wake of neoclassicism, meaning that corporate social responsibilities anchored on commercial activities are meant to enhance profits [34], therefore, corporate level performances are examined extensively in the context of CSR. Relevant metrics include firm reputation [35], organizational commitment and employee performance [36–38], financial performance and market value [39–41]. The interest of consumers to participate in CSR activities has been rising recently [42], thus, researchers start to shift their focus to stakeholders [43–46]. It is believed that organizations should satisfy the needs of different stakeholders, including employees, consumers, suppliers, and local communities. This argument holds that the relationship between corporations and society has embedded moral values, and companies should consider social responsibilities as an obligation [47,48]. In the context of these differing views on CSR, CSV seeks to explain how companies maintain a balance between social benefits and economic benefits by creating a “sweet spot”. Table 1 presents the detailed delineation of this concept. It is in anticipation of advancing managers’ understanding of CSV that this study is motivated.

Table 1. Distinguishing between concepts of CSV and CSR.

	CSV (creating shared value)	CSR (corporate social responsibility)
Business philosophy	Core of business operation	Periphery of business operation
Driven force	Internally	Externally
Focus on	Balance between economic and social benefits	<i>Economic-social perspective:</i> pursue corporate social performance (CSP) or corporate financial performance (CFP) <i>Stakeholder perspective:</i> Meet stakeholders’ expectations
Competitive strategy	Social concerns integrated into business models	Corporate performances are an additional benefit, and not relevant to competitive strategies

2.3. Theoretical Lens: Systems Thinking and the Ecosystem Perspective

The theoretical lens of this study is rooted in the ecosystem perspective by systems thinking. Systems thinking is a method intended to evaluate the interactive relationships between two or more components and the environment from a holistic viewpoint and mapping [49]. This helps to clarify issues and provide broader explanations [50,51]. The connections between components are established via the description of a causal feedback loop diagram to achieve system functioning and equilibrium [52].

According to the ecosystem perspective, system functioning is maintained and supported with inter-organizational economics, markets, and innovations [53]. This study attempts to construct a CSV ecosystem by mapping the CSV concept into system components, where the core idea of CSV presumes that companies are motivated to address social concerns and seek to achieve sustainable developments via continued economic effects. Furthermore, companies pursue maximum benefits and develop social innovation mechanisms with support from relevant organizations, which constantly seek opportunities in the external environment and develop business models accordingly. This study

gradually identifies the nature of each system component through this theoretic lens, describes the connections between components, and eventually, constructs the CSV ecosystem.

3. Methodology

3.1. Case Selection and Overview

This study conducts a case study as a qualitative research method, and probes into how and why, in order to establish a complete and systematic picture of the interactions or relations between factors and events in the context of the selected case [54].

In terms of case selection criteria, this study defines the CSV concept as the integration of social concerns into business models, examines all the activities that create value for stakeholders, and follows the criteria developed by Yin [55]: (1) the connection between social value creation and business models is observable [56]. In other words, the company in question has meaningful CSV activities; and (2) the social benefit created by the company is observable [57], which is focused on non-financial performances. Based on these criteria, this study takes Macy's in the U.S. as the focus case. Beside, personal contact assisted in data acquisition, thus, rich and factual contents are available for this case study [58].

Since its inception in 1858, Macy's has become a global name and a leader in the retail and department store sector in the U.S. Its 2018 revenue reached \$24.97 billion and it has close to 130,000 employees. Currently, the company has approximately 680 department stores that carry the Macy and Bloomingdale brands. Macy's Merchandising Group (MMG) manages its own private labels by sourcing from suppliers around the world. As part of its CSR and ethical principles, Macy's asks its suppliers to adhere to the Vendor and Supplier Code, which is a set of definite and stringent requirements and standards. Meanwhile, Macy's requires all its business units to honor corporate social responsibilities, including commitment to environmental sustainability, criteria for product procurements, support to communities, and diversity and tolerance.

3.2. Data Description and Gathering

Data sources include secondary data and interviews. Secondary data includes information about Macy's and media coverage on its social campaigns. From March to October 2019, this study interviewed Macy's managers and salespeople in Taiwan, the employees in the CSR division of its supplier Tainan Enterprises Co., Ltd., and consumers who have shopped in Macy's in the U.S. A total of 12 people were interviewed, which is in line with the number suggested by McCracken [59].

Before gathering data via in-depth interviews, this study reviewed the literature on CSV [9,10,20] and designed a semi-structured questionnaire. This was sent to the interviewees beforehand so that they would know what to expect during the interviews. The interviews were divided into three sections for the firm: (1) corporate history, development, and current status; (2) the process of CSV development, such as the effect of corporate social campaigns on stakeholders, the coordination with stakeholders for corporate social activities, and the process of development; and (3) the effectiveness of CSV implementation and prospects for the future. For the customer, the issues included the influence of corporate social events on spending behavior and the perception and expectations from consumers towards corporate social activities. Each interview lasted for 60–90 minutes, and adjustments were made according to the replies from the interviewees [60]. After the interviews, the researchers stayed in contact with interviewees in case of any follow-up questions for data coding. Two interviewees not based in Taiwan replied via correspondence. Table 2 shows the data of these anonymous interviewees. Secondary information is sourced from company websites and news media (e.g., CommonWealth Magazine) in order to establish the profile of the companies in the case study. This was followed with a topic analysis [61], which was supported by theories on data interpretation, in order to examine how the companies in the case study established their CSV ecosystems.

Table 2. Overview of interview data.

Joined	Name	Work Corporation	Position	years of experience	# Interviews
Brander	Amy	Macy's Merchandising Group (MMG)	Ex-general manager	20	2
	Becky		Sales	8	1
	Candice		Sales	15	1
	Debby		Sales	20	1
Supplier	Randy	Tainan Enterprises Co., Ltd.	CSR Manager	6	2
	Ellen		CSR Employee	2	1
	Fanny		Sales Manager	10	1
	Gina		Sales Manager	18	1
Consumers	* Beddy	Polo Ralph Lauren	Director of Technical Design	1	1
	* Cindy	Pro-Hot Enterprise Co., Ltd.	Business Development Manager	9	1
	Georgia Nancy	Retired Retired	— —	— —	1 1

* Interviewed by communication.

The primary data gathering process started with the highest level of executives working in Macy's, in order to gain a preliminary understanding of the core concepts and contents, as perceived by top management, regarding social value creation. This was followed with face-to-face interviews with employees. Finally, purposive sampling was conducted on suppliers and consumers. This research procedure aimed to uncover the thinking of decision makers regarding social value creation and business management, and mapping its findings with the perspective of employees, suppliers, and consumers, where the purpose was to present a dynamic and diverse picture of the activities in social value creation. Finally, this study developed a conceptual model by incorporating the data from the interviews into the theoretic framework.

3.3. Data Analysis Procedure

This study analyzed data by following the steps of grounded theory [62]. The first step was to process the data collected via interviews and observations. This study used open coding to inspect, collate, and capture the viewpoints of the interviewees regarding the creation of shared value by the focal case. The principles of open coding are based on Bogdam and Biklen [63], with a focus on the reconstruction of dialogues, the descriptions of external environments and events, and the section of codes for specific topics. Given the discrepancy between data sources, this process needed to be constantly reviewed [64] in order to identify the codes in relation to value creation by corporate social activities in the case study, and to establish new themes and classifications. Once a new theme was identified, we reverted to the literature to confirm whether the new findings were centered on research topics. As more and more research findings were supported by theories and there was no new insight from the data, the first-order codes were then considered saturated. It was followed with the search for the relation between the initial codes and the abstraction into second-order codes [65]. Constant diagnosis between data and theory was grounded in the CSV constructs. This step required settling on an aggregate of six dimensions: market, social innovation, corporate entrepreneurship, new business model, social network support, and social performance (the coding process is illustrated in Figure 1). These six dimensions were the basis for re-organizing the ideas generated with the data and from the memo [66]. The process served as a key procedure in the examination of connections between dimensions. Meanwhile, the theoretic model was developed by aggregating the theoretical dimensions.

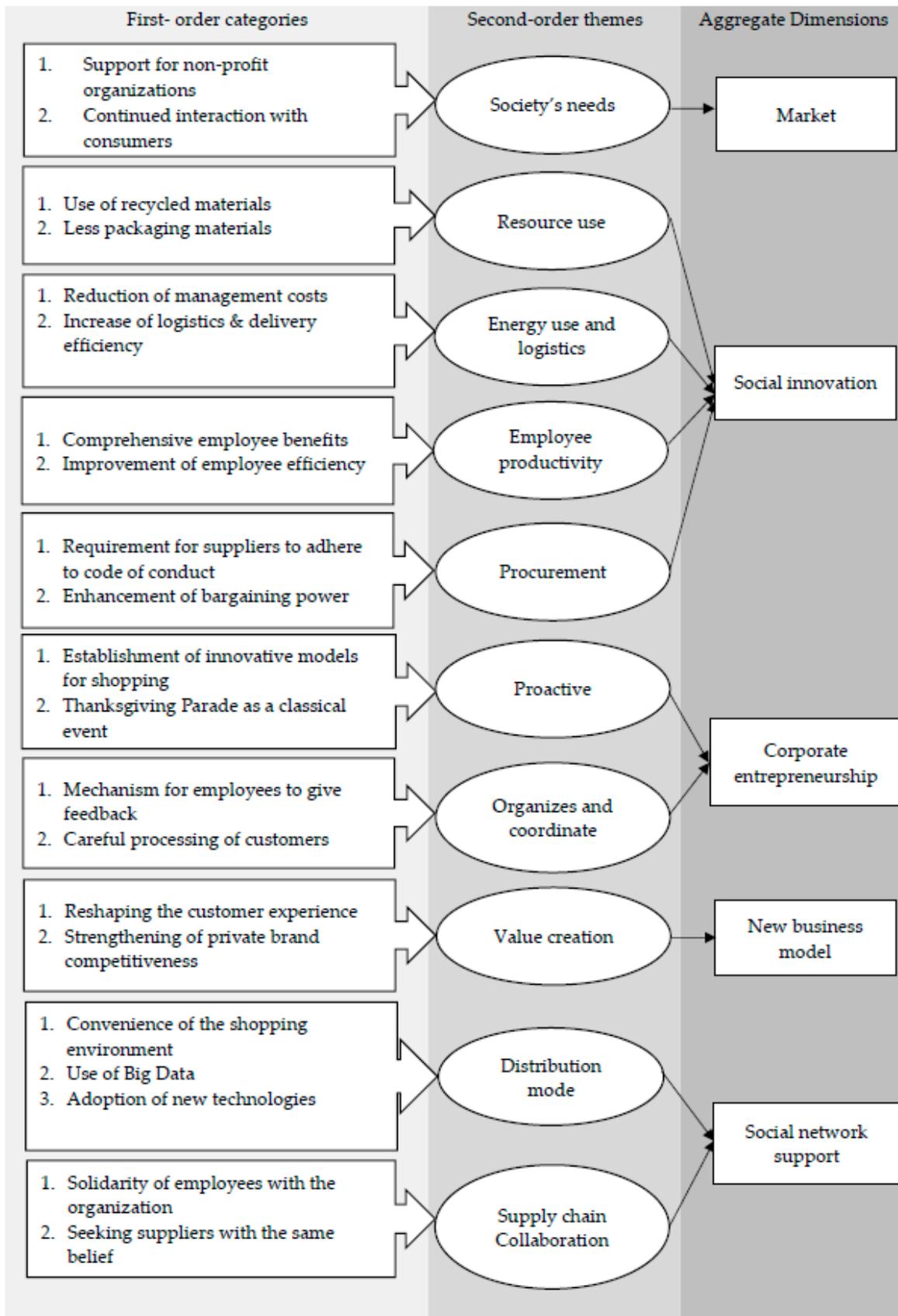


Figure 1. Cont.

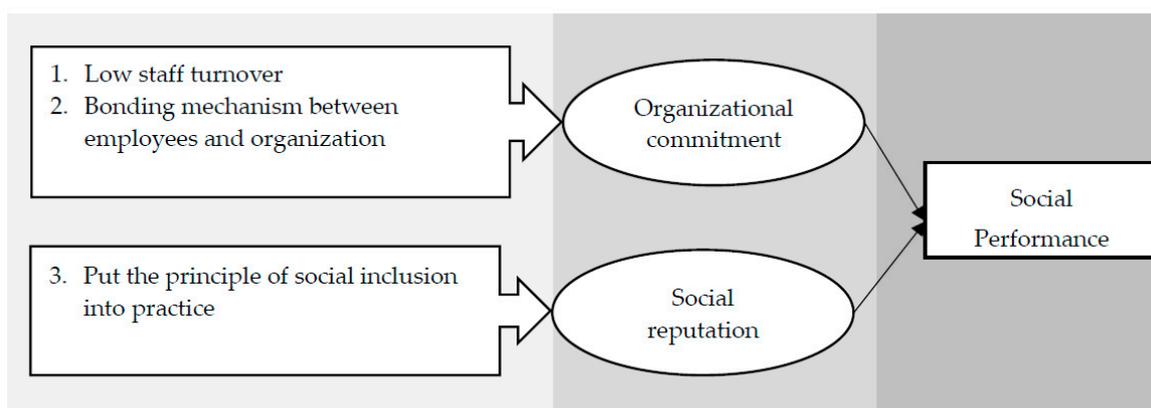


Figure 1. Data structure.

In terms of data validation, this study applies the reliability criteria developed by Lincoln and Guba [67] for qualitative research. Multilevel data comparison, generalization, and triangulation were conducted, in order to examine any differences in the constructed results according to data source variations. The process of data construction was according to Coffey and Atkinson [68], with procedures including anonymity, the writing and consolidation of data, and analysis of the credibility of empirical data. The cross examination of data reliability of different data sources [69] is summarized in Table 3.

Table 3. Collection of qualitative data.

Data collection	Joined	Number	Time/Location of Interview	Hours *
Formal interview	Consumers	4	2019 March/Coffee shop in Taiwan	30
	Employees	4	2019 September/MMG meeting room	15
	Suppliers	4		10
Secondary data	Books, journal articles, web page information, news, and conference records			20
Total				65

* Hours: This includes the interview, data coding, follow-up questions, secondary data collection.

4. Research Findings

This study identifies six components for the CSV ecosystem: markets, social innovations, social performances, new business model, corporate entrepreneurship, and social network support. In accordance with a prior study [70], two loops are included in the CSV ecosystem. Figure 2 depicts the conceptual model of the CSV ecosystem, and detailed descriptions of the individual subsystems are as follows:

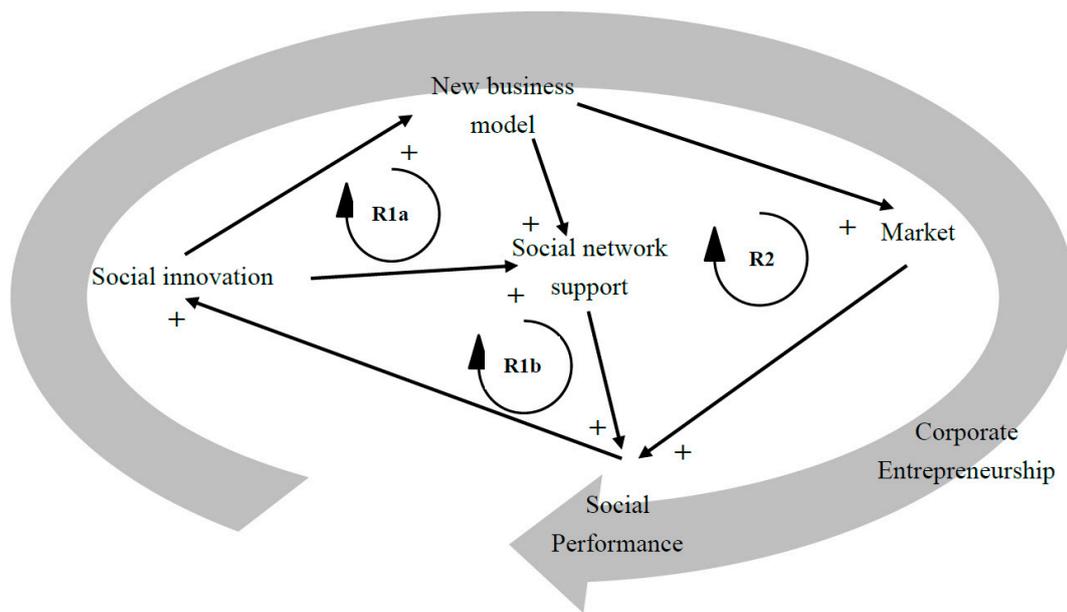


Figure 2. Conceptual framework of the CSV ecosystem.

4.1. Loop 1: Business Models and Social Innovation Supported by Social Network

This loop consists of social innovations, social network support, new business models and social performances. The core idea investigates the social performances of social innovation on the business model of how a social network can support it.

The present study found that the sources of social innovation in Macy's included resource utilization, energy consumption, logistics, procurement, and employee productivity. To better utilize resources, Macy's encourages its personnel to do their part for the planet by cutting down their use of paper, water, and electricity in the office. Macy's also requires its suppliers to minimize the impact of product manufacturing on water resources, soil, and natural habitats. For example, they use the cotton certified by the Better Cotton Initiative (BCI) in Switzerland. Moreover, the reuse of renewable energies and environmental materials in large quantities have made Macy's more efficient in energy consumption.

In terms of energy consumption and logistics planning, Macy's discloses to its employees the information from its IT system regarding material sources, suppliers, and contractors, in order to significantly reduce management costs. The advantages in such logistics allows Macy's to deliver goods to customers who place orders online on the same day. To boost employee productivity, Macy's provides good salaries and benefits, and a friendly workplace. The employees from different departments can access information regarding procurement, product development, and system integration, such as product traceability and development schedules. Finally, the Macy's Merchandising Group manages its own private labels, asks its suppliers to adhere to the Vendor and Supplier Code, and ensures compliance with laws and regulations in different countries. Macy's procures products from South East Asia and Africa, including Madagascar, Lesotho, and many other countries covered by trade agreements with the U.S., which boosts Macy's bargaining power by strategically centralizing the procurement of cloth.

Supporting ideas from the interviews are summarized as follows:

The increase in the use of solar energy and changing in-store lights into LED lightbulbs have enhanced the efficiency of our energy consumption. (Becky)

The support of special social groups speaks of Macy's diversity and tolerance. This makes employees feel affiliated with the company they work for. (Amy)

In the past, one plastic bag was used for each garment. Now only one plastic bag is used for each box. Unless necessary, we do not use lining paper. (Amy)

Macy's demands a lot from suppliers. If you can meet Macy's standards, you do not need to worry about the requirements from other clients. (Ellen)

We have the algorithms to determine which branch to transfer inventory from in order to accelerate the delivery. We can even deliver on the same day, so that customers can order online and pick up their products in store. (Debby)

We observed how Macy's is committed to sustainability by working with suppliers, employees, and customers. For example, Macy's "Style Crew" helps its own personnel become the best endorser for the company by encouraging employees to post their own pictures wearing Macy's products on internal social media, which enhances the solidarity of employees and fosters organizational commitment from employees. The bonding experience also reduces staff turnover. Macy's is also collaborating with many non-profit organizations and private institutions to provide education, healthcare, and guidance to a diversity of groups. The company supports "The Human Rights Campaign" and "The Trevor Project" by advocating equality for lesbians, gays, bisexuals, transgender, and queers (LGBTQ Community), and preventing suicides, which reminds its customers to act on these social issues and change how people behave and think about certain things. In the meantime, this also creates brand value and boosts word-of-mouth. Macy's integration of CSR activities into its business model, as well as its connection with social networks, have won great support.

Supporting ideas from the interviews are summarized as follows:

Our personnel attrition rate is low. While the benefits are not the best in the industry, most colleagues feel good working for the company. (Amy)

Macy's insists on high quality at reasonable prices. The cost/performance ratio is high. Its dedication to sustainability, CSR, and supplier requirements are persuasive. I will apply the same standards when I shop. (Georgia)

4.2. Loop 2: The Connection of New Business Models and Markets Led the Social Performance

This loop consists of social innovation, new business models, markets, and social performances. The core concept is about the connection of new business models and the markets, as well as the resulting corporate social performances.

The popularity of ecommerce has disrupted Macy's traditional business model. In addition to its continued commitment to quality, Macy's private label products are generally less expensive than manufacturer brands and provide monetary value for their customers. In addition, Macy's began a new marketing approach by conveying value and experience; for example, the company acquired STORY, which is a concept store located on Manhattan's 10th Avenue. This store displays stories on its shelves, such as social issues, cross-industry cooperation, fashion, and trends. Regular talks and workshops are organized by inviting high-caliber speakers, in order that consumers can enjoy the great experience.

As part of its marketing efforts, Macy's has been working with the Make-A-Wish Foundation of America since 2003. A letter to Santa Claus that is put in the red box instore or sent via Macy's official website will attract \$1 donation from Macy's to the Make-A-Wish Foundation of America to put smiles back on sick children's faces. Macy's also uses its influence to help stakeholders understand their roles in the value chain and their contribution to the societal good. This creates the opportunities for everybody to share the story with the community and society. This not only enhances the trust and support between stakeholders, it also attracts customers with the same values. In 2015, Macy's worked with a few non-profit organizations to organize the first Fashion Pass: customers who donate \$5 at registration will enjoy 15–20% discounts, and the Children's Cancer Research Foundation, Council of Fashion Designers of America Foundation, Inc., The Elizabeth Taylor AIDS Foundation, and McDonald's House New York all benefited from this campaign.

Supporting ideas from the interviews are summarized as follows:

Make-A-Wish is one of Macy's best-known social events. Many families look forward to it every year. (Amy)

Given the impact from ecommerce, Macy's must enhance the customer experience by leveraging its bricks and mortars. (Cindy)

Macy's strategy is to integrate experience into all its distribution channels, in order that customers can shop anytime and anywhere: shops, online, mobile apps, TV, mail, catalogues, or even other brand/retailer platforms. Macy's uses data analytics for relation marketing and precise customer segmentations. While electronic direct mail has been sent out to target customers, website visits have not declined; in fact, the unsubscribe rate dropped 20%. Meanwhile, tablets are available for use at Macy's stores so that consumers can create their virtual homes and use VR goggles to determine whether the furniture they choose is suitable, which saves the space and cost of furniture displays. With all these strategies, Macy's is able to offer an omni-channel shopping experience.

In summary, Macy's empowers its customers into prosumers, who have influence on society. Consumers feel respected/acknowledged and attain self-realization in the process of social value creation, meaning that they are part of Macy's value chain. Its innovative business models and channel strategies have enhanced its reputation, and customers describe Macy's as a quality firm, with good customer service, trendy and modern, and providing value for money. In 2016, Macy's was one of PR News' CSR Award Winners. According to SyncForce, Macy's is the 10th most popular department store in the U.S. In 2018, Macy's was rated as one of the best 50 companies by Black Enterprise.

4.3. Role of Corporate Entrepreneurship in the CSV Ecosystem

In the interview process, we found out that Macy's puts together innovative campaigns in a competitive environment. As early as 1864, Macy's came up with the idea of window shopping, and such a showcase of products quickly caught the eye of consumers.

Macy's Thanksgiving Day Parade every year since 1924 has become one of the most famous parades in the world. It is Macy's signature event that brings Americans together on this important holiday and passes down their heritage. Macy's also pays attention to comments from stakeholders and looks for opportunities to serve their future needs. When implementing new strategies or bringing new systems online, the headquarter convenes meetings by calling representatives from relevant departments and subsidiary companies to provide feedback to the responsible unit, and further communication and coordination with vendors or supervisors are facilitated to address concerns and make modifications accordingly. Customer complaints are dealt with promptly and the company is constantly looking for new ideas. This suggests that the CSV ecosystem requires corporate entrepreneurship to keep working.

Supporting ideas from the interviews are summarized as follows:

On one occasion a pair of red pants lost its color and stained the light-colored sofa of a customer at home. The headquarter convened a meeting immediately to identify the problem and replace the material. (Amy)

Macy's Thanksgiving Parade is a popular tradition in the U.S. A tradition created by Macy's. (Fanny)

5. Discussion and Conclusions

5.1. Theoretical Implications

This study contributes to the literature on CSV and the ecosystem. First, we explained a systematic conceptualization of CSV and illustrated how CSV drives corporate social performance via the causal feedback loop of the CSV ecosystem. Second, we elaborated on the influence of social forces on innovations not extensively covered in ecosystem literature. The findings of this study come up with comprehensive interpretations of the connection between social innovations and company social performances. Below is a detailed explanation.

This study identifies and conceptualizes six components for CSV operating: social innovations, social performances, business models, markets, corporate entrepreneurship, and social network supports. There are two major loops that connect the components into the overall CSV ecosystem. The first loop focuses on the sustainable development of companies, and is comprised of social innovations, new business models, social network support, and social performances. It describes the circular process of social innovations and business models prompting social network support, and leads to positive corporate social performances. Similar to arguments in literature, this study find that development of business models come with the explicit knowledge of human capital [71–73]. Companies are embedded in the relationships of social networks, which consist of different economic agents, including competitors, users, and suppliers. The innovations by the companies in the network relationship form knowledge spillover effects as a result of knowledge diffusion and social network support [74], which creates collaboration [75] and boosts positive firm social performances. The second loop focuses on the market developments, which consist of social innovation, new business models, markets and social performances. As stated in previous studies, companies must meet atypical market needs via new business models and social innovation to remain competitive [76]. The two distinctive feedback loops can both lead to positive effects on corporate social performance, which can be expressed with the relation between companies and communities [77]. Literature suggests that CSR pledges commitments that affect the behavior of employees, such as enhanced organizational commitment [38,78] and low staff turnover [79,80], as well as bringing about positive customer attitudes and purchase behavior [81–83]. In addition to reaching similar research findings, this study explained how CSV affects corporate social performance in the perspective of ecosystems.

This study also found that corporate entrepreneurship supports the two loops for workings. As mentioned in literature, entrepreneurship reflects the degree of risk taking, proactivity, and innovation in an organization [84]. Proactivity refers to seeking new opportunities to cater to consumer needs going forward [85]. Innovation as well as entrepreneurial knowledge and actions is considered a driving force for business success and global value creation [86]. According to Zhao [87], innovations must meet market needs, and entrepreneurship is a prerequisite for commercial success. The research findings of this study fill the literature gap regarding the driving forces or maintenance elements of CSV.

The literature on ecosystems posits that companies rely on external resources to overcome resource constraints in the competitive environment [88,89]. Many studies suggest the relational connections between innovation actors as the explanation of the causal feedback loop of technology innovations, business models, and market developments [90,91]. In other words, technology innovations and new ventures are the driving force of market growth [92]. However, literature has not delved into the influence of social forces on corporate ecosystems, meaning there is no explanation regarding how companies manage and coordinate a series of campaigns to enhance performance by working with public institutions and society in the context of economic competition [93]. The CSV ecosystem constructed by this study validates, once again, that R&D and entrepreneurship are the key success factors for innovation ecosystems [94]. It is also important to emphasize that the combination of social innovations and business models for shared benefits can boost a firm's social performances. This strengthens the traditional theory of ecosystems, which only focuses on the connection between technology innovations and markets.

5.2. Managerial Implications

In addition to theoretic implications, this study offers managerial implications. Many studies agree with the importance of CSV [95–98], but cannot systematically describe how to implement CSV. These limitations mean CSV is rarely tested with empirical data. This study constructs the CSV ecosystem, describes its key components, and maps out the path of such components in coexistence, and how they influence each other. Furthermore, this study is a response to the research direction suggested by Dembek et al. [19] by defining CSV and providing guidance on its implementation.

Meanwhile, companies can contemplate how to connect social issues to value chain activities, and incorporate the needs of more stakeholders to work together in the creation of corporate and/or social benefits. This study can help managers to understand that economic benefits and social benefits are not always mutually exclusive. On one end of the continuum are profit organizations that only do the bare minimum by paying taxes; on the other end are social enterprises that prioritize or only care about social benefits. There are different combination types of economic and social benefits between the two ends; for example, Whole Foods Markets and Nestlé. Whole Foods adheres to its core value for profit creation by making employees happy internally and by designing new lifestyles for customers externally. The company strives to satisfy the needs of multiple stakeholders and the diversity of values. Nestlé began the establishment of value chain activities in Moga, India, years ago. By closely integrating community interests into corporate value chains, Nestlé eventually stabilized the source of goods and the quality of its products in order to enhance its competitive advantages.

These are all ideas that believe economic benefits and social benefits can coexist; companies can create new business models, and then, profit through social innovations, in order to work with stakeholders to address social issues. More specifically, the operation of the CSV ecosystem requires entrepreneurship from management, and takes industry clusters as the foundation. The combination of market aspects via energy, logistics, employee productivity, and procurement workflows is the new direction for social innovations to address social concerns, which allows for the business models to facilitate value creation, and hence, economic or social benefits for the companies.

5.3. Directions for Future Research

This study focused on the CSV ecosystem and provided an integrated model to explain how corporate social activities can be combined into business models for value creation. The research findings shed light on the research streams concerning CSV and ecosystems, and provide a direction for further studies. The CSV ecosystem constructed by this study could serve as a template for the development of CSV measurements. The core value of CSV is anchored on the performance created with the integration of social activities and commercial activities. There is still a lack of empirical research on CSV and firm performance based on the conceptualization of CSV constructs [99]. The research findings of this study could serve as the basis for further empirical projects. Moreover, CSV seeks to balance between social innovation and business models in order to create mutual benefits. In addition to costs and profits, the measurement of mutual benefit zones also covers elements such as markets, social network support, and corporate entrepreneurship as part of the CSV ecosystem.

As far as research on the domain of ecosystems is concerned, this study observed the ecosystem built by the case company from a macro perspective. Future studies may examine the working and maintenance of CSV ecosystems from the micro perspective (e.g., at the corporate level), in order to identify the resources and capabilities required for companies. Finally, ecosystems are constantly in a process of dynamic evolution. Further research can also seek to explore the effects of various exogenous variables (e.g., competitive intensity and technological innovations) on CSV ecosystems.

Author Contributions: Conceptualization, M.-R.Y., T.-K.Y.; Funding acquisition, M.-R.Y.; Investigation, T.-K.Y., M.-R.Y.; Methodology, M.-R.Y., T.-K.Y.; Project administration, T.-K.Y.; Resources, M.-R.Y.; Supervision, M.-R.Y.; Validation, T.-K.Y. and M.-R.Y.; Visualization, T.-K.Y., M.-R.Y.; Writing—original draft, T.-K.Y.; Writing—review & editing, M.-R.Y. All authors have read and agreed to the published version of the manuscript.

Funding: This study was supported by the research grant from the Ministry of Science and Technology in Taiwan.

Acknowledgments: Special thanks to Hui-Wen (Vivian) Wang for supporting expert interviews and the empirical study of Macy's case.

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

References

- Bhattacharya, C.B.; Korschun, D.; Sen, S. Strengthening stakeholder–company relationships through mutually beneficial corporate social responsibility initiatives. *J. Bus. Ethics* **2009**, *85*, 257–272. [[CrossRef](#)]
- Kang, C.; Germann, F.; Grewal, R. Washing away your sins? Corporate social responsibility, corporate social irresponsibility, and firm performance. *J. Mark.* **2016**, *80*, 59–79. [[CrossRef](#)]
- Korschun, D.; Bhattacharya, C.B.; Swain, S.D. Corporate social responsibility, customer orientation, and the job performance of frontline employees. *J. Mark.* **2014**, *78*, 20–37. [[CrossRef](#)]
- Brower, J.; Kashmiri, S.; Mahajan, V. Signaling virtue: Does firm corporate social performance trajectory moderate the social performance–financial performance relationship? *J. Bus. Res.* **2017**, *81*, 86–95. [[CrossRef](#)]
- Habel, J.; Schons, L.M.; Alavi, S.; Wieseke, J. Warm glow or extra charge? The ambivalent effect of corporate social responsibility activities on customers’ perceived price fairness. *J. Mark.* **2016**, *80*, 84–105. [[CrossRef](#)]
- Park, E.; Kim, K.J.; Kwon, S.J. Corporate social responsibility as a determinant of consumer loyalty: An examination of ethical standard, satisfaction, and trust. *J. Bus. Res.* **2017**, *76*, 8–13. [[CrossRef](#)]
- Sen, S.; Bhattacharya, C.B.; Korschun, D. The role of corporate social responsibility in strengthening multiple stakeholder relationships: A field experiment. *J. Acad. Mark. Sci.* **2006**, *34*, 158–166. [[CrossRef](#)]
- Branco, M.C.; Rodrigues, L.L. Corporate social responsibility and resource-based perspectives. *J. Bus. Ethics* **2006**, *69*, 111–132. [[CrossRef](#)]
- Porter, M.; Kramer, M. Strategy and society: The link between competitive advantage and corporate social responsibility. *Harv. Bus. Rev.* **2006**, *84*, 78–92.
- Porter, M.; Kramer, M. Creating shared value. *Harv. Bus. Rev.* **2011**, *89*, 62–77.
- Osburg, T.; Schmidpeter, R. (Eds.) *Social Innovation: Solutions for a Sustainable Future*; Springer: Heidelberg, Germany, 2013.
- Crane, A.; Palazzo, G.; Spence, L.J.; Matten, D. Contesting the value of “Creating Shared Value”. *Calif. Manag. Rev.* **2014**, *56*, 130–151. [[CrossRef](#)]
- Harrison, J.S.; Coombs, J.E. The moderating effects from corporate governance characteristics on the relationship between available slack and community-based firm performance. *J. Bus. Ethics* **2012**, *107*, 409–422. [[CrossRef](#)]
- Lassch, O.; Yang, J. Rebuilding dynamics between corporate social responsibility and international development on the search for shared value. *KSCE J. Civil Eng.* **2011**, *15*, 231–238. [[CrossRef](#)]
- Verboven, H. Communicating CSR and business identity in the chemical industry through mission slogans. *Bus. Commun. Q.* **2011**, *74*, 415–431. [[CrossRef](#)]
- Kendrick, A.; Fullerton, J.A.; Kim, Y.J. Social responsibility in advertising: A marketing communications student perspective. *J. Mark. Educ.* **2013**, *35*, 141–154. [[CrossRef](#)]
- Dubois, C.L.; Dubois, D.A. Expanding the vision of industrial-organizational psychology contributions to environmental sustainability. *Ind. Organ. Psychol.* **2012**, *5*, 480–483. [[CrossRef](#)]
- Wójcik, P. How creating shared value differs from corporate social responsibility. *J. Manag. Bus. Adm.* **2016**, *24*, 32–55. [[CrossRef](#)]
- Dembek, K.; Singh, P.; Bhakoo, V. Literature review of shared value: A theoretical concept or a management buzzword? *J. Bus. Ethics* **2016**, *137*, 231–267. [[CrossRef](#)]
- Porter, M.E.; Kramer, M.R. A response to Andrew Crane et al.’s article by Michael E. Porter and Mark R. Kramer. *Calif. Manag. Rev.* **2014**, *56*, 149–151.
- Awale, R.; Rowlinson, S. A conceptual framework for achieving firm competitiveness in construction: A’ creating shared value (CSV) concept. In Proceedings of the 30th Annual ARCOM Conference, Portsmouth, UK, 1–3 September 2014.
- Kramer, M.R.; Pfitzer, M.W. The ecosystem of shared value. *Harv. Bus. Rev.* **2016**, *94*, 80–89.
- Brown, D.; Knudsen, J.S. Managing corporate responsibility globally and locally: Lessons from a CR leader. *Bus. Politics* **2012**, *14*, 1–29. [[CrossRef](#)]
- Shrivastava, P.; Kennelly, J.J. Sustainability and place-based enterprise. *Organ. Environ.* **2013**, *26*, 83–101. [[CrossRef](#)]
- Maltz, E.; Thompson, F.; Ringold, D.J. Assessing and maximizing corporate social initiatives: A strategic view of corporate social responsibility. *J. Public Aff.* **2011**, *11*, 344–352. [[CrossRef](#)]
- Pirson, M. Social entrepreneurs as the paragons of shared value creation? A critical perspective. *Soc. Enterp. J.* **2012**, *8*, 31–48. [[CrossRef](#)]

27. Bowman, C.; Ambrosini, V. Value creation versus value capture: Towards a coherent definition of value in strategy. *Br. J. Manag.* **2000**, *11*, 1–15. [[CrossRef](#)]
28. Brandenburger, A.M.; Stuart, H.W., Jr. Value-based business strategy. *J. Econ. Manag. Strategy* **1996**, *5*, 5–24. [[CrossRef](#)]
29. Doyal, L.; Gough, I. *A Theory of Human Need*; Macmillan: Houndmills, UK, 1991.
30. Max-Neef, M. Development and human needs. In *Real Life Economics: Understanding Wealth Creation*; Ekins, P., Max-Neef, M., Eds.; Routledge: London, UK, 1992; pp. 97–213.
31. Nussbaum, M.C.; Glover, J. *Women, Culture, and Development: A Study of Human Capabilities*; Oxford University Press: Oxford, UK, 1995.
32. Fearne, A.; Garcia Martinez, M.; Dent, B. Dimensions of sustainable value chains: Implications for value chain analysis. *Supply Chain. Manag. Int. J.* **2012**, *17*, 575–581. [[CrossRef](#)]
33. Gradl, C.; Jenkins, B. Tackling Barriers to Scale: From Inclusive Business Models to Inclusive Business Ecosystems. 2011. Available online: <https://www.hks.harvard.edu> (accessed on 1 December 2019).
34. Friedman, M. The social responsibility of business is to increase its profits. *The New York Times Magazine*. 13 September 1970. Available online: <http://www.colorado.edu/studentgroups/libertarians/issues/friedman-soc-resp-business.html> (accessed on 1 December 2019).
35. Melo, T.; Garrido-Morgado, A. Corporate reputation: A combination of social responsibility and industry. *Corp. Soc. Responsib. Environ. Manag.* **2012**, *19*, 11–31. [[CrossRef](#)]
36. De Roeck, K.; Marique, G.; Stinglhamber, F.; Swaen, V. Understanding employees' responses to corporate social responsibility: Mediating roles of overall justice and organizational identification. *Int. J. Hum. Resour. Manag.* **2014**, *25*, 91–112. [[CrossRef](#)]
37. Kim, K.H.; Kim, M.; Qian, C. Effects of corporate social responsibility on corporate financial performance: A competitive-action perspective. *J. Manag.* **2018**, *44*, 1097–1118. [[CrossRef](#)]
38. Panagopoulos, N.G.; Rapp, A.A.; Vlachos, P.A. I think they think we are good citizens: Meta-perceptions as antecedents of employees' reactions to corporate social responsibility. *J. Bus. Res.* **2016**, *69*, 2781–2790. [[CrossRef](#)]
39. Bhardwaj, P.; Chatterjee, P.; Demir, K.D.; Turut, O. When and how is corporate social responsibility profitable? *J. Bus. Res.* **2018**, *84*, 206–219. [[CrossRef](#)]
40. Luo, X.; Bhattacharya, C.B. Corporate social responsibility, customer satisfaction, and market value. *J. Mark.* **2006**, *70*, 1–18. [[CrossRef](#)]
41. Nekhili, M.; Nagati, H.; Chtioui, T.; Rebolledo, C. Corporate social responsibility disclosure and market value: Family versus nonfamily firms. *J. Bus. Res.* **2017**, *77*, 41–52. [[CrossRef](#)]
42. Carrigan, M.; Attalla, A. The myth of the ethical consumer—Do ethics matter in purchase behaviour? *J. Consum. Mark.* **2001**, *18*, 560–577. [[CrossRef](#)]
43. Brown, T.J.; Dacin, P.A. The company and the product: Corporate associations and consumer product responses. *J. Mark.* **1997**, *61*, 68–84. [[CrossRef](#)]
44. Marin, L.; Ruiz, S. "I need you too!" Corporate identity attractiveness for consumers and the role of social responsibility. *J. Bus. Ethics* **2007**, *71*, 245–260. [[CrossRef](#)]
45. Mohr, L.A.; Webb, D.J. The effects of corporate social responsibility and price on consumer responses. *J. Consum. Aff.* **2005**, *39*, 121–147. [[CrossRef](#)]
46. 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](#)]
47. Kaku, R. The path of Kyosei. *Harv. Bus. Rev.* **1997**, *75*, 55–63.
48. Freeman, R.E. The politics of stakeholder theory. *Bus. Ethics Q.* **1994**, *4*, 409–421. [[CrossRef](#)]
49. Yan, M.R. Project-based competition and policy implications for sustainable developments in building and construction sectors. *Sustainability* **2015**, *7*, 15423–15448. [[CrossRef](#)]
50. Schiuma, G.; Carlucci, D.; Sole, F. Applying a systems thinking framework to assess knowledge assets dynamics for business performance improvement. *Expert Syst. Appl.* **2012**, *39*, 8044–8050. [[CrossRef](#)]
51. Yan, M.R. Strategic product innovations and dynamic pricing models in oligopolistic market. *J. Sci. Ind. Res.* **2017**, *76*, 284–288.
52. Sterman, J.D. System dynamics modeling: Tools for learning in a complex world. *Calif. Manag. Rev.* **2001**, *43*, 8–36. [[CrossRef](#)]

53. Yan, M.R.; Chien, K.M.; Hong, L.Y.; Yang, T.N. Evaluating the collaborative ecosystem for the innovation-driven economy: A systems analysis and case study of science parks. *Sustainability* **2018**, *10*, 887. [[CrossRef](#)]
54. Evert, S. *The Statistics of Word Co-Occurrences: Word Pairs and Collocations*. Ph.D. Thesis, University of Stuttgart, Stuttgart, Germany, 2004.
55. Yin, R.K. *Case Study Research Design and Methods*, 3rd ed.; SAGE Publishing: Thousand Oaks, CA, USA, 2003.
56. Farooq, O.; Payaud, M.; Merunka, D.; Valette-Florence, P. The impact of corporate social responsibility on organizational commitment: Exploring multiple mediation mechanisms. *J. Bus. Ethics* **2014**, *125*, 563–580. [[CrossRef](#)]
57. Austin, J.E. Strategic collaboration between nonprofits and businesses. *Nonprofit Volunt. Sect. Q.* **2000**, *29*, 69–97. [[CrossRef](#)]
58. Miles, M.B.; Huberman, A.M. *Qualitative Data Analysis: An Expanded Sourcebook*; SAGE Publishing: Thousand Oaks, CA, USA, 1994.
59. McCracken, G. *The Long Interview; Qualitative Research Methods*; SAGE Publishing: Thousand Oaks, CA, USA, 1988.
60. Charmaz, K. *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*; SAGE Publishing: Thousand Oaks, CA, USA, 2006.
61. Bardin, L. *L'analyse de Contenu*, 9th ed.; PUF: Paris, France, 1998.
62. Dey, I. *The Sage Handbook of Grounded Theory*; SAGE Publishing: Thousand Oaks, CA, USA, 2007.
63. Bogdan, R.C.; Biklen, S.K. *Qualitative Research for Education: An Introductory to Theory and Methods*, 5th ed.; Allyn and Bacon: Needham Heights, MA, USA, 2006.
64. Locke, K.D. *Grounded Theory in Management Research*; SAGE Publishing: London, UK, 2001.
65. Gioia, D.A.; Corley, K.G.; Hamilton, A.L. Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organ. Res. Methods* **2013**, *16*, 15–31. [[CrossRef](#)]
66. Lempert, L.B. Asking questions of the data: Memo writing in the grounded theory tradition. In *The Sage handbook of grounded theory*; Bryant, A., Charmaz, K., Eds.; SAGE Publishing: Thousand Oaks, CA, USA, 2007; pp. 245–264.
67. Lincoln, Y.S.; Guba, E.G. *Naturalistic Inquiry*; SAGE Publishing: Beverly Hills, CA, USA, 1985.
68. Coffey, A.; Atkinson, P. *Making Sense of Qualitative Data: Complementary Research Strategies*; SAGE Publishing: Thousand Oaks, CA, USA, 1996.
69. Marshall, C.; Rossman, G.B. *Designing Qualitative Research*; SAGE Publishing: Thousand Oaks, CA, USA, 2006.
70. Yun, J.J.; Won, D.; Jeong, E.; Park, K.; Yang, J.; Park, J. The relationship between technology, business model, and market in autonomous car and intelligent robot industries. *Technol. Forecast. Soc. Chang.* **2016**, *103*, 142–155. [[CrossRef](#)]
71. Romer, P. Increasing returns and long-run growth. *J. Political Econ.* **1986**, *94*, 1002–1037. [[CrossRef](#)]
72. Lucas, R.E. On the mechanism of economic development. *J. Monet. Econ.* **1988**, *22*, 3–42. [[CrossRef](#)]
73. Rodríguez-Pose, A. Innovation prone and innovation averse societies: Economic performance in Europe. *Growth Chang.* **1999**, *30*, 75–105. [[CrossRef](#)]
74. Porter, M. *The Competitive Advantage of Nations*; Free Press: New York, NY, USA, 1990.
75. Freeman, C. Networks of innovators: A synthesis of research issues. *Res. Policy* **1991**, *20*, 499–514. [[CrossRef](#)]
76. Davenport, T.; Leibold, M.; Voelpel, S. *Strategic Management in the Innovation Economy*; Publicis and Wiley: Erlangen, Germany, 2006.
77. Johnson, R.A.; Greening, D.W. The effects of corporate governance and institutional ownership types on corporate social performance. *Acad. Manag. J.* **1999**, *42*, 564–576.
78. Fu, H.; Ye, B.H.; Law, R. You do well and I do well? The behavioral consequences of corporate social responsibility. *Int. J. Hosp. Manag.* **2014**, *40*, 62–70. [[CrossRef](#)]
79. 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](#)]
80. DeTienne, K.B.; Agle, B.R.; Phillips, J.C.; Ingerson, M. The impact of moral stress compared to other stressors on employee fatigue, job satisfaction, and turnover: An empirical investigation. *J. Bus. Ethics* **2012**, *110*, 377–391. [[CrossRef](#)]
81. Becker-Olsen, K.L.; Cudmore, B.A.; Hill, R.P. The impact of perceived corporate social responsibility on consumer behavior. *J. Bus. Res.* **2006**, *59*, 46–53. [[CrossRef](#)]

82. Janssen, C.; Vanhamme, J. Theoretical lenses for understanding the CSR–consumer paradox. *J. Bus. Ethics* **2015**, *130*, 775–787. [[CrossRef](#)]
83. Pivato, S.; Misani, N.; Tencati, A. The impact of corporate social responsibility on consumer trust: The case of organic food. *Bus. Ethics Eur. Rev.* **2008**, *17*, 3–12. [[CrossRef](#)]
84. Miller, D. The correlates of entrepreneurship in three types of firms. *Manag. Sci.* **1983**, *29*, 770–791. [[CrossRef](#)]
85. Johnson, D. What is innovation and entrepreneurship? Lessons for large organizations. *Ind. Commer. Train.* **2001**, *33*, 135–140. [[CrossRef](#)]
86. Yan, M.R. Improving entrepreneurial knowledge and business innovations by simulation-based strategic decision support system. *Knowledge Manag. Res. & Practice.* **2018**, *16*, 173–182.
87. Zhao, F. Managing innovation and quality of collaborative R&D. In Proceedings of the 5th International & 8th National Research Conference, Melbourne, Australia, 12–14 February 2001.
88. Ireland, R.D.; Webb, J.W. Crossing the great divide of strategic entrepreneurship: Transitioning between exploration and exploitation. *Bus. Horiz.* **2009**, *52*, 469–479. [[CrossRef](#)]
89. Kohtamaki, M.; Rabetin, R.; Möller, K. Alliance capabilities: A review and future research directions. *Ind. Mark. Manag.* **2018**, *68*, 188–201. [[CrossRef](#)]
90. Adner, R.; Kapoor, R. Value creation in innovation ecosystems: How the structure of technological interdependence affects firm performance in new technology generations. *Strateg. Manag. J.* **2010**, *31*, 306–333. [[CrossRef](#)]
91. Chen, Y.; Rong, K.; Xue, L.; Luo, L. Evolution of collaborative innovation network in China’s wind turbine manufacturing industry. *Int. J. Technol. Manag.* **2014**, *65*, 262–299. [[CrossRef](#)]
92. Yun, J.J.; Won, D.; Park, K.; Yang, J.; Zhao, X. Growth of a platform business model as an entrepreneurial ecosystem and its effects on regional development. *Eur. Plan. Stud.* **2017**, *25*, 805–826. [[CrossRef](#)]
93. Bonardi, J.P.; Holburn, G.L.F.; Vanden Bergh, R.G. Nonmarket strategy performance: Evidence from US electric utilities. *Acad. Manag. J.* **2006**, *49*, 1209–1228. [[CrossRef](#)]
94. Oh, D.S.; Phillips, F.; Park, S.; Lee, E. Innovation ecosystems: A critical examination. *Technovation* **2016**, *54*, 1–6. [[CrossRef](#)]
95. Chatterjee, B. Business and communities—Redefining boundaries. *NHRD Netw. J.* **2012**, *5*, 55–60. [[CrossRef](#)]
96. Sojamo, S.; Larson, E.A. Investigating food and agribusiness corporations as global water security, management and governance agents: The case of Nestlé, Bunge and Cargill. *Water Altern.* **2012**, *5*, 619–635.
97. Spitzack, H.; Boechat, C.; Leao, S.F. Sustainability as a driver for innovation: Towards a model of corporate social entrepreneurship at Odebrecht in Brazil. *Corp. Gov.* **2013**, *13*, 613–625. [[CrossRef](#)]
98. Spitzack, H.; Chapman, S. Creating shared value as a differentiation strategy—The example of BASF in Brazil. *Corp. Gov.* **2012**, *12*, 499–513. [[CrossRef](#)]
99. Szmigin, I.; Rutherford, R. Shared value and the impartial spectator test. *J. Bus. Ethics* **2013**, *114*, 171–182. [[CrossRef](#)]

