



Article

What Determines the Success of Culture-Led Regeneration Projects in China?

Tao Yu 1,2,3, Qi Tang 1,2,3,*, Yongxiang Wu 1,2,3, Yaowu Wang 1,2,3 and Zezhou Wu 4

- Department of Construction Management, School of Civil Engineering, Harbin Institute of Technology, Harbin 150090, China
- Key Lab of Structures Dynamic Behavior and Control of the Ministry of Education, Harbin Institute of Technology, Harbin 150090, China
- Key Lab of Smart Prevention and Mitigation of Civil Engineering Disasters of the Ministry of Industry and Information Technology, Harbin Institute of Technology, Harbin 150090, China
- Sino-Australia Joint Research Center in BIM and Smart Construction, Shenzhen University, Shenzhen 518061, China
- * Correspondence: 18S033018@stu.hit.edu.cn

Received: 14 August 2019; Accepted: 2 September 2019; Published: 5 September 2019



Abstract: Culture-led regeneration projects (CRPs) have been identified as an effective means for enhancing the sustainable development of cities. Related topics have been investigated; however, relatively little information is known about what factors are critical for achieving success in these kinds of regeneration projects. Based on a literature review and five case studies, this study contributes to the body of knowledge by identifying 25 critical success factors (CSFs) for managing CRPs in China. A questionnaire survey was designed to evaluate the relative importance of these factors from practitioners' and researchers' perspectives. In addition, a factor analysis was carried out to group these CSFs into five categories, namely government policies and culture-led regeneration strategies, stakeholder management and financing support, technical solutions for CRPs, social security, and industry development. The results demonstrated that cultural value management, integrating cultural development with urban planning, adopting sustainable development principles, reconstructing the city image and brand, and the availability of culture-led planning methods played the most important roles in the success of CRPs. The findings of this study can help practitioners enhance their regeneration project performance.

Keywords: critical success factors; culture-led regeneration projects; factor analysis; China

1. Introduction

In China, rapid urbanization has been identified as a driving power that facilitates economic growth, modernization, and infrastructure development [1]. However, this rapid urbanization also incurs a series of urban sustainability problems, including substandard housing, land shortage, uncontrolled urban sprawl, environmental pollution, and urban slums [2,3]. Against this backdrop, urban regeneration has been highlighted as an effective means for settling these sustainability problems [4]. Through housing condition improvement and infrastructure updating, urban regeneration projects (URPs) can bring a new look to old urban centers and enhance urban residents' quality of life [5]. By reusing brownfields and re-planning existing urban areas, URPs contribute to environmental protection, carbon emission reduction, and land use optimization [6,7]. Additionally, URPs can promote real estate industry development and provide new job opportunities for local people, which spurs economic growth [5].

However, in previous Chinese URPs, cultural protection and construction have been ignored due to the adoption of property-led regeneration strategies [8,9]. For example, in Tianjin, the cultural and

Sustainability **2019**, 11, 4847 2 of 21

historic heritages related to the Revolution of 1911 were seriously damaged due to building demolition caused by property-led URPs [10]. In recent years, the preservation of regional culture and cultural heritage has been drawing increasing attention from practitioners and scholars because it is beneficial to enhancing the sense of community, local identity, and social development [11,12]. According to a study conducted by Chung and Lee [13], cultural resources play an important role in the sustainable development of cities due to their significant contribution to urban diversity and innovation. In 2015, the 2030 Agenda for Sustainable Development was released by the United Nations, in which the protection of cultural heritage was listed as a clear target for sustainable development [14]. Consistent with this agenda, Chinese governments have announced a number of policies to improve cultural life in cities, which focus on three aspects: cultural heritage preservation, cultural facility construction, and the development of cultural and creative industries [15].

Against this backdrop, a series of culture-led regeneration projects (CRPs) have been carried out, such as the Chinese Baroque in Harbin [16], Nantou Ancient City in Shenzhen [17], and Taoxichuan Art Avenue in Jingdezhen [18]. Studies have been conducted to evaluate the contribution of CRPs to the reconstruction of city image [19] and socio-economic development [20]. As a result, metrics for measuring the performance and success of CRPs have been clearly identified. Generally, CRP success requires that the time, budget, and quality of these CRPs meet planners' expectations, and the delivery of these CRPs can provide better functions and services for local residents, generate commercial profits, facilitate the development of cultural industries, reshape the city's image, and increase the competitiveness of the city [21,22].

Although the implications of CRP success have been clearly defined, the path to achieving success in CRPs has not been fully addressed by previous studies. This study contributes to this body of knowledge by investigating critical success factors (CSFs) for CRPs. CSFs refer to elements that significantly affect project performance and can ensure project success if they are satisfactory [23,24]. The study of CSFs has been proven to be an effective approach to enhance project performance [25]. By identifying CSFs, project developers and managers can clearly understand the directions needed for performance improvement and then place their focus on the most important tasks [11]. Therefore, studies related to CRP CSFs should be conducted to provide valuable guidance for practitioners to achieve success in their CRPs.

This study identifies 25 CSFs based on a literature review and five case studies as discussed in the next sections. The following sections discuss the questionnaire survey carried out to evaluate the relative importance of each CSF, in which a factor analysis was performed to group the 25 CSFs into a few categories. Finally, the implications of each factor category are discussed, and suggestions for achieving success in CRPs are given.

2. Literature Review

2.1. CRP and Its Contribution to the Sustainable Development of Cities

CRP refers to a type of URP that utilizes cultural resources as a catalyst for promoting urban regeneration activities, which typically involve the development of cultural facilities and the reconstruction of a city's image and brand [26]. Compared with property-led URPs, CRPs focus on culture protection and construction rather than short-term profit generation. Since culture is a key linkage between cities' economic and social structures, enhancing cultural construction in urban regeneration contributes to cities' socio-economic development [27]. Therefore, CRPs have been highlighted as an effective approach to improve sustainability, especially in terms of economic and social sustainability [27]. Studies have been conducted to explore the impacts of CRPs on the sustainable development of cities in terms of four dimensions: economic growth, social development, urban competitiveness, and local residents' quality of life.

In terms of economic growth, Chiu, et al. [28] argued that CRPs promoted the re-growth of the local economy by increasing the level of investment in creative and cultural industry, creating new

Sustainability **2019**, 11, 4847 3 of 21

job opportunities, and encouraging culture-related consumption (e.g., sport events). With respect to social development, Long, et al. [29] highlighted that CRPs generated social benefits by constructing a sense of community, maintaining social interaction, and enriching cultural diversity and urban creativity. Carnegie and Norris [30] suggested that CRPs could help build local capacity, encourage public participation, strengthen community cohesion, and combat stigmatization. Regarding urban competitiveness, Sainz [19] found that CRPs facilitated the construction of a city's image and brand, which helped a city to increase its unique attractiveness and competitiveness. In addition to the aforementioned benefits, Moradi, Zarabadi and Majedi [27] concluded that CRPs could continuously improve cities' physical, social, cultural, environmental and economic conditions, which improved local residents' quality of life. In summary, achieving success in CRPs can undoubtedly enhance the sustainable development of cities.

2.2. CSFs for URPs

In the field of engineering project management, the concept of CSF was introduced by Pinto and Slevin [31] in 1987. This concept focuses on the elements that have the highest level of impact on project success [25]. Researchers have found that, in practice, if the CSFs of a project are well controlled and managed, then the probability of achieving project success will be significantly increased [11]. In research areas related to URPs, CSF has been studied to identify directions for improving project performance.

Some studies have focused on the general conditions of URPs. For example, through a brainstorming-based survey of 29 experts, Yu and Kwon [32] identified 10 CSFs for URPs in Korea, which focused on the key management functions and contexture characteristics of URPs. They found that the "minimization of conflict between stakeholders" was the most important factor determining the success of URPs. To mitigate stakeholder conflicts, Liu, Wang, Xia and Ni [4] investigated the CSFs for the management of public participation in URPs. Based on a focus group and questionnaire survey, they concluded that "the clarity of information disclosure," "timely responses to public inquiries," "necessary avenues and equipment," "diversity in the ways of disclosing information," and "results presentation" had the highest level of impact on the success of public participation management in URPs.

Other studies have focused on specific types of URPs, such as the regeneration of brownfield sites and historic districts. For instance, based on ten case studies in Manchester and Osaka, Dixon, et al. [33] explored the CSFs for brownfield regeneration projects. They concluded that the identification of potential markets, project branding, long-term planning, project partnerships, integrated development, and infrastructure development were critical for the success of brownfield regeneration. Using Interpretive Structural Modeling method, Zhou, Zhou and Liu [22] identified CSFs for the regeneration of historic districts and analyzed the interactions among different CSFs, claiming that culture played an important role in historic district regeneration projects.

As an important type of URP, CRPs have attracted attention from scholars in related fields. In one case study, Sainz [19] argued that the construction of city image played an important role in achieving success in CRPs. In the study conducted by Moradi, Zarabadi and Majedi [27], the development of creative and cultural industry, the construction of a city brand, the creation of cultural neighborhoods and the promotion of cultural tourism were identified as the primary strategies for achieving success in CRPs. By analyzing the application of culture-led regeneration strategies in real projects, Gunay and Dokmeci [34] highlighted that cultural policies could significantly affect the success of CRPs. Yung, et al. [35] explored the regeneration process of Tianzifang from the perspectives of sustainable development and concluded that the adaptive reuse of historical blocks was critical for the success of CRPs. In addition to the aforementioned factors, Yung, Zhang and Chan [11] suggested that opportunities for public engagement had an important impact on the success of CRPs.

Generally, studies have been conducted to explore the basic principles for achieving success in CRPs. However, the majority of them only focus on one specific aspect (e.g., the reconstruction of a

Sustainability **2019**, 11, 4847 4 of 21

city image) rather than the general conditions of CRPs. Therefore, a comprehensive list of CSFs for CRPs has not been compiled and validated. In addition, the relative importance of each CSF has not been assessed, which adversely affects the application of relevant theories. In this study, we bridged these knowledge gaps through an empirical investigation on the CSFs for CRPs.

3. Research Design

The overall research design of this study is displayed in Figure 1, which contains three key sections: the identification of CSFs, ranking and classification of CSFs, and CSF validation.

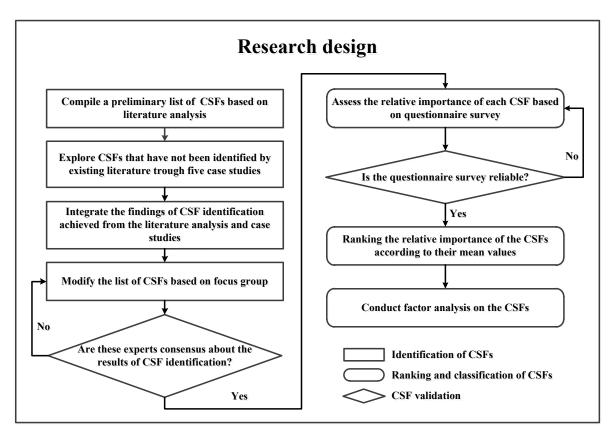


Figure 1. Research design (this figure was drawn by the authors). CSF: critical success factor.

3.1. Identification of CSFs

Similar to the studies conducted by Yu, et al. [36] and Dixon, Otsuka and Abe [33], an identification of CSFs for CRPs was conducted based on a literature analysis and five case studies. First, a wide range of literature related to CRPs was examined to compile a preliminary list of CSFs. The majority of the papers were selected from academic databases, including the Web of Science, the American Association of Civil Engineers database, the Institute of Electrical and Electronics Engineers database, the Engineering Index, and the China National Knowledge Infrastructure. Initially, keywords including "culture-led redevelopment," "culture-led regeneration," "culture-led renewal," "city re-image," and "culture-led rehabilitation" were used to search papers related to CRPs. These keywords have been widely used in previous studies [19,27,37], which can help researchers to identify the preliminary scope of CRP-related literature. Then, these papers were reviewed by the researchers to evaluate their linkages with CRPs. The basic principle stipulated that, in these papers, culture should be regarded as a key resource for promoting urban regeneration, which was consistent with the definition of CRP proposed by Moradi, Zarabadi and Majedi [27]. Subsequently, through a literature analysis, the key elements affecting the success of CRPs were identified as a preliminary list of CSFs. This identification step was based on the conclusions and key findings of previous studies. For example, in one study

Sustainability **2019**, 11, 4847 5 of 21

conducted by Sainz [19], the reconstruction of a city image and brand was highlighted as a key factor determining the success of urban regeneration. Therefore, "reconstructing the city image and brand" was identified as a CSF in this study.

Since previous studies have not comprehensively investigated CSFs for CRPs, this literature-based factor identification process may miss a few important elements that have a significant impact on CRP success. Given the explorative nature of the current study, case studies were then conducted to identify CSFs that had not been explored by previous studies [36]. Five exemplar CRPs were selected, including the Chinese Baroque, the Nanluoguxiang, the Wisdom Bay Creative Park, the Vanke 1948, and the Ningbo Art Gallery. The geographical distribution of the five cases is displayed in Figure 2. One can see that the majority of these CRPs are located in the eastern area of China. Due to the uneven economic growth (the economic development of eastern cities is typically better than that of western cities), cities in the western area of China typically place the focus of their URPs on economic development rather than cultural construction. As a result, in this study, the five exemplar CRPs were selected from eastern cities.

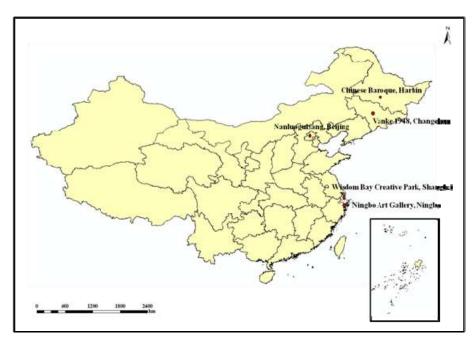


Figure 2. Geographical distribution of the five exemplar culture-led regeneration projects (CRPs) (this figure was drawn by the authors).

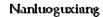
The architectural styles of these CRPs are displayed in Figure 3. The Chinese Baroque is a mixture of Baroque style and traditional Chinese Hutong. The Nanluoguxiang contains a large number of historic buildings constructed in the Yuan Dynasty and the era of colonialism. The Wisdom Bay Creative Park consists of old factories that have been retrofitted to develop cultural and creative industry. The Vanke 1948 is a commercial center redeveloped from industrial sites. The Ningbo Art Gallery is a landmark redeveloped from industrial sites, which contributes to the development of cultural and creative industry. The primary background information of the five CRPs is shown in Table 1.

Sustainability **2019**, 11, 4847 6 of 21

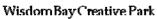




 $Chinese\,Baroque$









Vanke 1948



Ningbe Art Gallery

Figure 3. Architectural styles of the five exemplar CRPs (these photos were selected from the database of the 360 Gallery, one of the biggest image databases in China).

Table 1. Background information of the five cases (this table was created based on the interviews and project document analysis).

CRPs	Chinese Baroque	Nanluoguxiang	Wisdom Bay Creative Park	Vanke 1948	Ningbo Art Gallery
Location	Harbin	Beijing	Shanghai	Changchun	Ningbo
Features of local culture	 Buildings in the Chinese Baroque style Historic Hutongs Historic courtyards Catering culture Folk culture 	 Historic buildings constructed in the Yuan Dynasty Historic buildings constructed in the era of colonialism Hutong culture 	Industry cultureModern culture	Industry culture	Industry culture
Key challenges before regeneration	Substandard housingLack of infrastructure	Substandard housingLack of green spaceLack of transportation system	Serious pollution caused by industrial activities Decline of heavy industry	Decline of heavy industrySubstandard housing	Insufficient protection of historic relics
Culture-led regeneration strategies	Retrofit historic and cultural buildings Promote the catering culture of Harbin trough opening restaurants Protect the culture of song-and-dance duet Develop culture-led tourism	Retrofit historic and cultural buildings Develop culture-led tourism Promote cultural and creative industry, such as creative art workshops	 Promote cultural and creative industry Attract creative professionals and artists Construct landmarks 	Build theme parks and museums Organize art exhibitions and cultural festivals	Build an art museum Protect historic relics Construct cultural facilities Organize art exhibition
Benefits achieved from urban regeneration	 Tourism development Housing quality improvement Commercial development Infrastructure development 	Tourism development Housing quality improvement Construction of recreational facilities Transportation improvement Development of cultural and creative industry	Commercial development Infrastructure improvement Development of cultural and creative industry Reconstruction of landmarks and city image	 Commercial development Housing quality improvement Development of culture industry 	Commercial development Development of culture industry Construction of landmarks

Sustainability **2019**, 11, 4847 8 of 21

In these CRPs, culture-led regeneration strategies were successfully adopted to improve project performance. Therefore, studying the five exemplar cases could help researchers to understand the basic principles for achieving success in CRPs. The key participants of these CRPs (see Figure 4), including 13 project managers, 17 planners, 12 designers, and 9 government officials, were interviewed to collect relevant data. The interviews focused on two primary questions: (1) What factors are critical for the success of these CRPs? (2) Why are these factors critical for the success of these CRPs? In addition, second-hand data were gathered from the official websites of the five projects as well as related databases. The CSFs of a case were identified based on two principles [36]: first, these CSFs must be supported by more than half of participants in this CRP [38]; second, these CSFs' impacts on this CRP should be clearly explained.

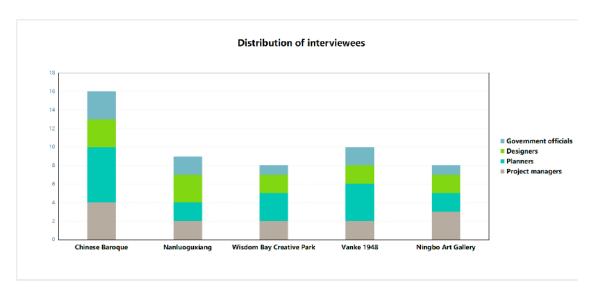


Figure 4. Distribution of interviewees (this figure was drawn by the authors).

Finally, the CSFs identified from the literature analysis and case studies were integrated to formulate an improved factor list. Five focus group meetings were then organized to modify this list. The key members of these focus group meetings included the aforementioned participants of the five CRPs and the researchers of this study. The effectiveness of the list was evaluated based on the knowledge of the focus group members. CSFs that were not applicable to the contexts of China were removed from the list. As a result, 25 CSFs were identified.

3.2. Ranking and Classification of CSFs

Although the list of CSFs was compiled from the literature analysis and case studies, the relative importance of each CSF was still unknown. To identify the most significant factors, a questionnaire survey was designed to rank these CSFs in terms of their contributions to the success of CRPs [4]. In this survey, respondents marked the relative importance of each CSF (see Table 2) on a 5-point Likert scale, where 5 denoted extremely important and 1 denoted negligible. From 1 March 2019 to 15 May 2019, a total of 400 questionnaires were distributed to government officials, planners, project developers, designers, and researchers, the majority of whom had more than 3 years of work or research experience related to CRPs. The regions investigated included Jiangsu, Shanghai, Shandong, Guangdong, Hubei, Heilongjiang, Beijing and Sichuan, all of which have well-recognized CRPs. In total, 130 usable questionnaires were collected with a valid rate of 32.5%. Compared with similar studies (e.g., [39]), this valid rate was relatively high. The distribution of the respondents is displayed in Figure 5. The majority of respondents are practitioners and researchers in the field of CRPs.

Sustainability **2019**, 11, 4847 9 of 21

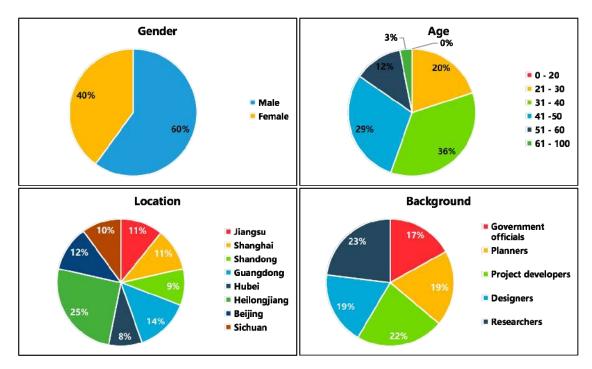


Figure 5. Distribution of the respondents (this figure was drawn by the authors).

The mean values of the 25 CSFs in the questionnaire survey were selected as the primary indicators to rank the relative importance of these CSFs, which was consistent with the studies conducted by Liu, Wang, Xia and Ni [4] and Lu and Yuan [40]. If a CSF had a relatively high mean value, then this CSF was considered to be relatively important for CRP success.

To examine the internal relations among the 25 CSFs, a factor analysis was then performed to classify these CSFs into a few categories. Typically, CSFs in the same category shared similar characteristics [9,41]. A factor analysis can help researchers to extract the common features of different CSFs and explain the implications of the basic principles for achieving success [4].

3.3. CSF Validation

In this study, five focus group meetings were organized to confirm the effectiveness of the CSF identification, which was consistent with the study conducted by Yu, Shen, Shi, Zheng, Wang and Xu [9]. The focus group members were the key participants of the five exemplar CRPs and the researchers of this study. CSFs that were not applicable to the contexts of China were removed from the final CSF list. In addition, the implications of each CSF were discussed by the focus group members to evaluate whether this CSF was critical for the success of CRPs. Modifications were made until these focus group members arrived at a consensus about the results of the CSF identification.

The reliability of the questionnaire survey was tested based on Cronbach's alpha, which is a widely-applied indicator for evaluating the quality of data collection [4]. The Cronbach's alpha value of this study was 0.924 (>0.8), reaching a satisfactory level [42,43]. Therefore, the results of the questionnaire survey were robust and effective.

Table 2. CSFs for CRPs (this table was created based on the literature analysis and case studies).

CSF	Implications of Each CSF	Source
Cultural value management (F1)	Analyze the potential cultural value of CRPs, transform a cultural heritage with little value into one that contributes to local development and utilize cultural resources for value proliferation (involved CRPs: the Chinese Baroque, the Nanluoguxiang, the Wisdom Bay Creative Park, the Vanke 1948 and the Ningbo Art Gallery)	[27,44,45]
Incentive policies promoting culture-led regeneration strategies (F2)	Release incentive policies that remove barriers to the application of culture-led regeneration strategies (e.g., subsidies for CRPs; involved CRPs: the Wisdom Bay Creative Park and the Ningbo Art Gallery)	[46–48]
Laws or regulations protecting historic and cultural relics (F3)	Release laws or regulations that focus on the protection of historic and cultural relics (e.g., Law of the People's Republic on the Protection of Cultural Relics; involved CRPs: the Chinese Baroque and the Nanluoguxiang)	[49]
Integrating cultural development with urban planning (F4)	Enhance cultural protection and construction in the urban planning process (involved CRPs: the Chinese Baroque, the Nanluoguxiang, the Wisdom Bay Creative Park and the Vanke 1948)	[19,44]
Cultural facilities and landmarks (F5)	Construct cultural facilities (e.g., art museums) and landmarks to improve the cultural life of cities and reshape city image (involved CRPs: the Chinese Baroque, the Vanke 1948 and the Ningbo Art Gallery)	[19,44,45]
Adopting sustainable development principles in CRPs (F6)	Enhance the sustainability of CRPs with considerations given to economic growth, social development, environmental protection, urban competitiveness and local residents' quality of life (involved CRPs: the Chinese Baroque and the Wisdom Bay Creative Park)	[27,50,51]
Reconstructing the city image and brand (F7)	Highlight the unique characteristics of the city, utilize cultural resources to construct city image and brand (involved CRPs: the Chinese Baroque, the Nanluoguxiang, the Wisdom Bay Creative Park, the Vanke 1948 and the Ningbo Art Gallery)	[19,27,45,51]
Information disclosure (F8)	Inform the key project stakeholders about the potential impacts of CRPs on the local community and city and disclose the information on planning and decision-making (involved CRPs: none of the five cases)	[52]

Table 2. Cont.

CSF	Implications of Each CSF	Source
Public investment (F9)	Attract investments from governments and state-owned enterprises (involved CRPs: the Chinese Baroque, the Nanluoguxiang, the Wisdom Bay Creative Park and the Ningbo Art Gallery)	[20,45,46,48]
Encouraging cultural elite groups to participate in CRPs (F10)	Encourage cultural elite groups (e.g., artists) to participate in the planning, construction and management of CRPs, and invite them to become a member of local community (e.g., build workshops for artists; involved CRPs: the Wisdom Bay Creative Park, the Vanke 1948 and the Ningbo Art Gallery)	[37,48]
Effective negotiation and communication with local residents (F11)	Negotiate and communicate with local residents in an effective way and build good relationships with the local community (involved CRPs: none of the five cases)	[45,52]
Support from local governments (F12)	Seek for support from senior government officials (involved CRPs: the Wisdom Bay Creative Park and the Ningbo Art Gallery)	[20,46,48]
Support from local media (F13)	Seek for support from local media (involved CRPs: the Chinese Baroque)	[51]
Community cohesion and engagement (F14)	Build shared values among community members through cultural construction, create cultural neighborhoods, organize cultural activities to enhance the relationships among community members and encourage community engagement (involved CRPs: the Chinese Baroque and the Nanluoguxiang)	[28,45]
Effective financing channels (F15)	Achieve effective means for project financing, including bank loans, private investments, government subsidies and so on (involved CRPs: none of the five cases)	[37,45]
Effective methods for performance and impact evaluations (F16)	Achieve effective evaluation tools for quantifying the performance of culture-led regeneration strategies and measuring the impacts of CRPs on urban development (involved CRPs: none of the five cases)	[28]

 Table 2. Cont.

CSF	Implications of Each CSF	Source
Adoption of eco-friendly design (F17)	Adopt eco-friendly design techniques in the CRPs to reduce energy, water and material consumption and control the adverse impact of CRPs on ecological environment (involved CRPs: the Wisdom Bay Creative Park)	[44,45]
Availability of culture-led planning methods (F18)	Achieve advanced planning methods that can effectively utilize cultural resources for regeneration activities and contribute to cultural protection and development (involved CRPs: the Chinese Baroque, the Nanluoguxiang, the Wisdom Bay Creative Park and the Vanke 1948)	[44,53]
Effective building retrofit technologies (F19)	Adopt effective technical solutions for building retrofit (involved CRPs: the Chinese Baroque and the Wisdom Bay Creative Park)	Case study
Techniques for restoring cultural relics (F20)	Adopt effective technical solutions for restoring cultural relics (involved CRPs: the Chinese Baroque and the Nanluoguxiang)	Case study
Adoptive reuse of old buildings (F21)	Utilize adaptive reuse technologies to modify the structures and functions of old buildings (involved CRPs: the Chinese Baroque, the Nanluoguxiang, the Wisdom Bay Creative Park, the Vanke 1948 and the Ningbo Art Gallery)	[51]
Fair and reasonable relocation compensation for displaced residents (F22)	Provide fair and reasonable compensations (i.e. monetary and in-kind compensations) for residents that are replaced due to CRPs (involved CRPs: the Chinese Baroque)	Case study
Creation of job opportunities (F23)	Create new job opportunities for local residents through commercial development (involved CRPs: the Wisdom Bay Creative Park and the Vanke 1948)	[27,45]
Creative and cultural industry (F24)	Utilize cultural resources to develop creative and cultural industry (involved CRPs: the Wisdom Bay Creative Park and the Vanke 1948)	[27,28,45]
Tourism industry (F25)	Utilize cultural resources to attract tourists and develop tourism industry (involved CRPs: the Chinese Baroque, the Vanke 1948 and the Nanluoguxiang)	[27,37]

Sustainability **2019**, 11, 4847 13 of 21

4. Results

4.1. List of CSFs

Based on the literature analysis and case studies, 25 CSFs, the majority of which have been explored by previous studies, were identified and are shown in Table 2. Only three of these CSFs were identified based on the case studies rather than existing literature; i.e. effective building retrofit technologies (F19), techniques for restoring cultural relics (F20), and fair and reasonable relocation compensation for displaced residents (F22). The significance of these three CSFs was confirmed through a focus group and questionnaire. In focus group meetings, interviewees argued that, compared with other types of URPs, CRPs typically paid more attention to cultural resource protection and utilization. Old buildings and cultural relics with unique characteristics are important carriers of local culture, which reflects the lifestyles of local residents in a particular historical period. To inherit local culture, CRPs place focus on building retrofit and relic protection rather than demolition and reconstruction. Therefore, effective retrofit technologies that can reinforce building structures and protect the cultural features of these buildings are critical for the success of CRPs. In addition, the restoration of cultural relics also plays a significant role in successful CRPs, which requires technical support. With respect to relocation compensation, this CSF contributes to CRPs' social performance. Since the majority of residents living in old buildings are low-income households, relocation compensation is an important means for mitigating social security issues and stakeholder conflicts. In summary, these three CSFs have a significant impact on the success of CRPs. This argument was supported by the questionnaire survey, in which all three CSFs achieved a mean value higher than 3.5 [4].

4.2. Ranking of CSFs

The rankings of the 25 CSFs are displayed in Table 3 according to their mean values achieved from the questionnaire survey. A CSF was considered to be more important than another if it had a higher mean value. If two or more CSFs had the same mean value, then the CSF with a lower standard deviation was identified as a more important CSF. This ranking method is a simple and effective approach to identify the most important CSFs and has been adopted in a few studies (e.g., [40] and [4]). In Table 3, the mean values of all the 25 CSFs are larger than 3.5, which indicates that the CSF identification is reliable, and all of these CSFs play a significant role in the success of CRPs [4]. Similar to the study conducted by Liu, Wang, Xia and Ni [4], the top five CSFs were highlighted as the most important factors for the success of CRPs, which included cultural value management (F1), integrating cultural development with urban planning (F4), adopting sustainable development principles in CRPs (F6), reconstructing the city image and brand (F7), and availability of culture-led planning methods (F18). To enhance CRP performance, practitioners should place their focus on these five CSFs.

According to the study conducted by Liu, Wang, Xia and Ni [4], the demographic characteristics and background-related factors of respondents may affect their evaluations of the relative importance of CSFs. Therefore, an analysis of variance was conducted to test the consistency among different respondents' viewpoints on each CSF. If the P-value of a given CSF is less than 0.05, then respondents hold significantly different opinions on the relative importance of this CSF. The results of the analysis of variance are summarized in Table 4. One can see that the 130 respondents have consistent evaluations regarding the majority of the 25 CSFs. However, their opinions on F23 (i.e. creation of job opportunities) significantly differ from each other. Generally, the professional background and location of a respondent can affect his/her evaluation of this CSF. Factors related to age and gender do not significantly affect the respondents' evaluations on F23. In the questionnaire survey, designers (mean value = 3.33) tended to underestimate the importance of F23, but researchers (mean value = 3.97) typically overestimated the importance of F23. Compared with respondents in other areas, individuals in Guangdong (mean value = 3.44) and Sichuan (mean value=3.31) tended to underestimate the importance of F23.

Sustainability **2019**, 11, 4847 14 of 21

Table 3. Ranking of CSFs (this table was created based on the mean value a

CSF	Mean Value	Standard Deviation	Rank	CSF	Mean Value	Standard Deviation	Rank
F4	4.215	0.906	1	F14	3.962	0.782	14
F1	4.108	0.990	2	F11	3.962	0.866	15
F6	4.085	0.817	3	F15	3.946	0.781	16
F7	4.085	0.863	4	F12	3.938	0.775	17
F18	4.077	0.813	5	F5	3.931	0.900	18
F2	4.062	0.946	6	F19	3.908	0.731	19
F9	4.046	0.735	7	F20	3.900	0.766	20
F17	4.031	0.797	8	F24	3.862	0.904	21
F21	4.023	0.792	9	F10	3.792	0.775	22
F25	3.985	0.757	10	F16	3.785	0.871	23
F3	3.977	0.927	11	F23	3.762	0.815	24
F22	3.969	0.835	12	F13	3.754	0.808	25
F8	3.969	0.914	13				

Table 4. Results of the analysis of variance (this table was created based on the analysis of variance).

CSF	p-Value of Background	p-Value of Location	<i>p</i> -Value of Age	<i>p</i> -Value of Gender
F1	0.700	0.166	0.247	0.914
F2	0.741	0.733	0.132	0.880
F3	0.310	0.594	0.797	0.730
F4	0.926	0.586	0.763	0.529
F5	0.200	0.598	0.803	0.383
F6	0.341	0.477	0.770	0.432
F7	0.528	0.763	0.805	0.902
F8	0.949	0.863	0.322	0.785
F9	0.369	0.925	0.804	0.923
F10	0.824	0.774	0.486	0.613
F11	0.997	0.861	0.498	0.837
F12	0.883	0.951	0.259	0.269
F13	0.720	0.157	0.687	0.860
F14	0.918	0.704	0.301	0.820
F15	0.532	0.051	0.324	0.681
F16	0.600	0.931	0.676	0.870
F17	0.841	0.476	0.928	0.721
F18	0.249	0.804	0.987	0.272
F19	0.303	0.681	0.477	0.961
F20	0.188	0.310	0.896	0.853
F21	0.154	0.690	0.786	0.392
F22	0.875	0.533	0.969	0.347
F23	0.046 *	0.045 *	0.525	0.148
F24	0.808	0.118	0.940	0.969
F25	0.255	0.651	0.252	0.451

note. "*" means that respondents cannot reach a consistent evaluation on this CSF $\,$

4.3. Factor Analysis

Factor analysis is an effective statistical method for dimensional reduction and variable classification [41]. Based on the correlations among different factors, this method can help researchers group the 25 CSFs into a few categories. Typically, CSFs in the same category have similar characteristics or have a close linkage with each other [41]. A factor analysis was conducted in this study to help the researchers extract the shared features of these CSFs. The value of the Kaiser–Meyer–Olkin test was 0.891 > 0.7, which indicated that the data quality of the questionnaire survey met the basic requirements of factor analysis [54]. Additionally, the value of Bartlett's test of sphericity was 1834.353 with a

Sustainability **2019**, 11, 4847 15 of 21

significance level of 0.05, which implied that the correlation matrix of the 25 CSFs was not an identity matrix [41]. Therefore, the results of the factor analysis were reliable. The rotated component matrix for the 25 CSFs is shown in Table 5.

Table 5. Rotated component matrix for CSFs (this table was created based on the factor analysis).

			Component		
CSF	1	2	3	4	5
F1	0.727	0.033	0.033	0.182	0.428
F2	0.650	0.124	0.246	0.304	0.301
F3	0.631	0.067	0.467	0.154	0.121
F4	0.756	-0.045	0.064	0.387	0.138
F5	0.636	0.367	0.164	0.141	0.107
F6	0.653	0.397	0.260	-0.141	0.210
F7	0.616	0.330	0.247	-0.001	0.004
F8	0.473	0.526	0.093	0.030	-0.079
F9	0.378	0.677	-0.003	0.190	0.013
F10	0.187	0.711	0.233	0.065	0.195
F11	0.143	0.597	0.172	0.200	0.309
F12	0.120	0.651	0.179	0.316	0.187
F13	-0.105	0.610	0.421	0.222	0.079
F14	0.243	0.519	0.293	0.459	-0.035
F15	0.101	0.580	0.162	0.228	0.225
F16	0.456	0.274	0.649	0.040	-0.162
F17	0.199	0.107	0.791	0.155	-0.069
F18	0.242	0.098	0.737	0.096	0.216
F19	0.070	0.379	0.674	-0.032	0.269
F20	0.120	0.292	0.616	0.275	0.349
F21	0.121	0.392	0.379	0.459	0.200
F22	0.303	0.253	0.036	0.724	0.234
F23	0.111	0.342	0.156	0.663	0.041
F24	0.214	0.359	0.081	0.055	0.730
F25	0.312	0.142	0.219	0.244	0.619

Consistent with previous studies [4,55], each retained CSF should belong to only one of the categories extracted by the factor analysis; i.e., the maximum loading of a CSF among all categories should exceed 0.5. According to this principle, the adoptive reuse of old buildings (F21) was not considered for CSF classification because this CSF had a weak linkage with the others in terms of correlation. As a result, the other 24 CSFs are classified into five categories in Figure 6. The first three categories contained the majority of the CSFs, which were more important than the others.

Sustainability **2019**, 11, 4847 16 of 21

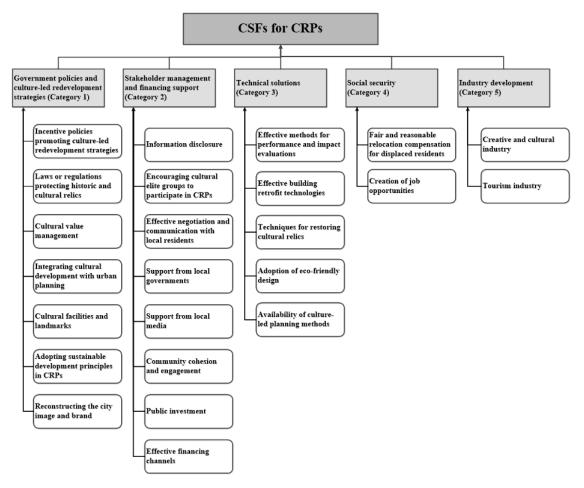


Figure 6. Classification of CSFs (this figure was drawn by the authors).

5. Discussion

5.1. Top CSFs

Previous studies have found that stakeholder conflict management was the most significant CSF for URPs [32]. In this study, cultural value management (F1), integrating cultural development with urban planning (F4), adopting sustainable development principles in CRPs (F6), reconstructing the city image and brand (F7) and the availability of culture-led planning methods (F18) played the most important roles in achieving CRP success. As a specific type of URP, the most important CSFs for CRPs differ from those for other types of URPs. Compared with property-led URPs, CRPs focus on culture protection and construction, which helps local communities to build sharing values among different stakeholders [19]. Therefore, stakeholder conflicts can be well controlled and do not significantly affect project performance.

Meanwhile, "how to effectively utilize cultural resources for promoting regeneration activities" has become a primary challenge for practitioners [27]. The majority of top CSFs that were identified from this study had a strong linkage with the selection of culture-led regeneration strategies. Generally, top-level management design has a significant impact on the success of CRPs. First, a value analysis should be conducted to define the potential values of local culture (e.g., tourism value). Through value management, practitioners can identify potential directions for cultural resource utilization (e.g., promote the development of tourism industry). Then, based on these directions, advanced planning methods should be used to integrate cultural construction with local development from a macro perspective [19,44]. The detailed objectives of CRPs can be determined according the urban regeneration planning scheme. Sustainable development principles should be employed to balance the cultural,

Sustainability **2019**, 11, 4847 17 of 21

social, economic and environmental objectives of CRPs [27,50,51]. To enhance the attractiveness and competitiveness of the redeveloped regions, strategies for building a city image and brand may be adopted to highlight the unique characteristics of local culture [27].

5.2. Implications of CSF Classification

In this study, the identified CSFs were classified into five categories. The CSFs of Category 1 were incentive policies promoting culture-led regeneration strategies (F2), laws or regulations protecting historic and cultural relics (F3), cultural value management (F1), integrating cultural development with urban planning (F4), cultural facilities and landmarks (F5), adopting sustainable development principles in CRPs (F6) and reconstructing the city image and brand (F7). Among these CSFs, F2 and F3 reflected the general policy conditions affecting the success of CRPs; i.e. incentive (F2) and mandatory policies (F3). Meanwhile, F1, F4, F5, F6, and F7 represented the mainstream strategies for promoting culture-led regeneration activities, including value management, urban planning, sustainable development and so on. Therefore, Category 1 was closely associated with government policies and culture-led regeneration strategies. Since Category 1 was the most critical component for CRP success according to the factor analysis results, practitioners should pay sufficient attention to policy development and culture-led strategy selection in their CRPs. One can see that the majority of the top CSFs in Section 5.1 belonged to this category, which confirms the factor analysis results.

The CSFs of Category 2 contained information disclosure (F8), encouraging cultural elite groups to participate in CRPs (F10), effective negotiation and communication with local residents (F11), support from local governments (F12), support from local media (F13), community cohesion and engagement (F14), public investment (F9), and effective financing channels (F15). According to the study conducted by Liu, Wang, Xia and Ni [4], F10, F11, F12, F13 and F15 focused on the management of the key stakeholders in CRPs, including urban residents, cultural elite groups, governments, public media, and local community. Additionally, these five factors offered basic tools for stakeholder management: information disclosure, stakeholder negotiation, communication, and stakeholder engagement. In terms of F9 and F15, these two factors represented the potential financing means for CRPs, including public and private financing channels. Generally, Category 2 had a strong linkage with stakeholder management and financing support.

The CSFs of Category 3 were effective methods for performance and impact evaluations (F16), effective building retrofit technologies (F19), techniques for restoring cultural relics (F20), the adoption of eco-friendly design (F17) and the availability of culture-led planning methods (F18). All these CSFs highlighted the importance of technical solutions for promoting CRPs that are focused on performance and impact assessment methods, technologies for building retrofit and relic restoration, and design and planning tools.

The CSFs of Category 4 included fair and reasonable relocation compensation for displaced residents (F22) and the creation of job opportunities (F23). According to the study conducted by Yu, Shen, Shi, Zheng, Wang and Xu [9], these two factors had a significant impact on local residents' quality of life. They are basic methods for social security. Therefore, we named Category 4 as social security.

The CSFs in Category 5 contained creative and cultural industry (F24) and tourism industry (F25). These two factors are focused on industry development, which contributes to economic growth. In summary, government policies and culture-led regeneration strategies, stakeholder management and financing support, technical solutions, social security and industry development were the key components of successful management in CRPs.

5.3. Theoretical and Practical Implications

This paper theoretically contributes to the body of knowledge on the successful management of CRPs. Although studies have been conducted to define the implications of CRP success and analyze the impacts of CRPs on local development (e.g., [19,20,27,49,56]), a comprehensive list of CSFs have not been achieved, which significantly limits the identification of effective directions for improving CRP

Sustainability **2019**, 11, 4847 18 of 21

performance. This study bridged this knowledge gap by identifying 25 CSFs from a literature analysis and five case studies. As a result, the question of which CSFs are critical for CRPs has been addressed. In addition, compared to studies conducted by Moradi, Zarabadi and Majedi [27] and Sainz [19], this study focused on the overall success of CRPs rather than the success of a specific activity during the regeneration process (e.g., urban competitiveness [27] and city image [19]). As we know, the success of a specific activity does not mean the overall project objectives were achieved. By integrating CSFs from different regeneration activities, this study can enhance researchers' understandings of the implications of CRP success. More importantly, the relative importance of each CSF was evaluated based on a questionnaire survey. Compared with qualitative studies that highlighted the basic principles for project success (e.g., [21,37]), this study quantitatively identified the most important factors affecting the performance of CRPs. Accordingly, focus can be accurately placed on these most significant CSFs, which enhance the efficiency of CRP management. The findings of this study are compared with those of previous studies in Table 6.

Table 6. Comparison between this study and previous studies (this table was created based on the literature analysis).

Source	Location	Research Focus	Primary Research Methods	Most Important Points for Improving Performance	Quantification of the Relative Importance of the Key Points
This study	China	Overall success of CRPs	Literature analysis, case studies, questionnaire survey, factor analysis	Effective strategies for utilizing cultural recourses for promoting regeneration activities	Yes
[19]	Span	Reconstruction of city image through CRPs	Case study	Construction of land marks	No
[21]	U.K.	Key success factors for sustainable culture-led regeneration	Case study	Culture events, policy support, and community involvement	No
[37]	Ireland	Impacts of cultural quarters on urban regeneration	Case study	Economic and cultural strategies for promoting urban regeneration	No
[45]	Italy	Value networks created by CRPs	Case study	Creation of value networks, neighborhood engagement, and collaboration structure	No
[46]	U.K.	Reconstruction of city image through CRPs	Case study	Construction of land marks	No
[48]	South Korea	Cultural entrepreneurs	Case study	Effective engagement methods for cultural elites (e.g., artists) Closer working relationships	No
[52]	South Korea	Stakeholder collaboration in CRPs	Case study	between central–municipal government and public–private/voluntary sectors	No

In terms of practical implications, this study can help practitioners to improve the performance of their CRPs. First, the 25 CSFs identified in Table 2 can be regarded as a checklist for managers to capture critical points for achieving project success. Second, the relative importance of each CSF was measured through the questionnaire survey. This data can help practitioners place their focus on the most important tasks in CRPs, significantly improving the efficiency of project management and operations. Third, CSFs with similar characteristics were grouped into the same category, which deepens practitioners' understanding of these CSFs. As a result, targeted strategies can be designed to manage these CSFs.

6. Conclusions

This study aimed to identify the critical elements for the success of CRPs. A list of 25 CSFs was compiled in Table 2 based on the literature review and five case studies. A questionnaire survey was carried out to evaluate the relative importance of these CSFs, based on which a factor analysis was performed to achieve CSF classification. The results indicated that cultural value management

(F1), integrating cultural development with urban planning (F4), adopting sustainable development principles in CRPs (F6), reconstructing the city image and brand (F7) and the availability of culture-led planning methods (F18) were the most important factors for CRP success. In addition, the identified CSFs were grouped into five categories: government policies and culture-led regeneration strategies, stakeholder management and financing support, technical solution for CRPs, social security and industry development. The findings of this study can help practitioners to enhance the performance of their CRPs.

A few limitations should be acknowledged as well. First, in this study, the analysis of CSFs was based on the context of China. Therefore, the conclusions may not be applicable to other regions where the basic conditions significantly differ from China. For example, the culture-led regeneration strategies used in Chinese Baroque may not be effective for Western countries with a different cultural background. Second, although the identification of CSFs was conducted based on mixed methods including a literature analysis, five case studies and five focus group meetings, they can never be exhaustive. In future studies, the findings of this study should be tested by CRPs in regions differing from China. Additionally, with the development of a CRP database, big data technologies may be used to identify CSFs in an effective approach. More CSFs may also be added to the CSF list in Table 2.

Author Contributions: Conceptualization, T.Y. and Q.T.; methodology, Q.T., Y.W. (Yongxiang Wu) and Y.W. (Yaowu Wang); validation, Y.W. (Yongxiang Wu) and Y.W. (Yaowu Wang); writing—original draft preparation, T.Y. and Q.T.; writing—review and editing, T.Y. and Z.W.; supervision, T.Y. and Q.T.

Funding: This research was funded by China Postdoctoral Science Foundation 2019M651295 and the National Key Research and Development Program of China 2016YFC0701904 and 2017YFC0806106.

Acknowledgments: The authors thank the editors and anonymous reviewers for their valuable and constructive suggestions for improving this paper.

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

References

- 1. Yu, T.; Shen, G.Q.P.; Shi, Q.; Lai, X.D.; Li, C.Z.D.; Xu, K.X. Managing social risks at the housing demolition stage of urban redevelopment projects: A stakeholder-oriented study using social network analysis. *Int. J. Proj. Manag.* **2017**, *35*, 925–941. [CrossRef]
- 2. Almeida, C.P.; Ramos, A.F.; Silva, J.M. Sustainability assessment of building rehabilitation actions in old urban centres. *Sustain. Cities Soc.* **2018**, *36*, 378–385. [CrossRef]
- 3. Zhai, B.Q.; Ng, M.K. Urban regeneration and social capital in China: A case study of the Drum Tower Muslim District in Xi'an. *Cities* **2013**, *35*, 14–25. [CrossRef]
- 4. Liu, B.S.; Wang, X.Q.; Xia, N.N.; Ni, W. Critical success factors for the management of public participation in urban renewal projects: Perspectives from governments and the public in China. *J. Urban Plan. Dev.* **2018**, 144, 04018026. [CrossRef]
- 5. Youneszadeh, H.; Ardeshir, A.; Sebt, M.H. Exploring critical success factors in urban housing projects using fuzzy Analytic Network Process. *Civ. Eng. J.* **2017**, *3*, 1048–1067. [CrossRef]
- 6. Cao, K.; Guan, H. Brownfield redevelopment toward sustainable urban land use in China. *Chin. Geogr. Sci.* **2007**, *17*, 127–134. [CrossRef]
- 7. Tiesdell, S. *Brownfields Redevelopment and the Quest for Sustainability*; Emerald Group Publishing: Bingley, UK, 2008.
- 8. Hu, Y.J.; Morales, E. The Unintended consequences of a culture-led regeneration project in Beijing, China. *J. Am. Plann. Assoc.* **2016**, *82*, 296. [CrossRef]
- 9. Yu, T.; Shen, G.Q.; Shi, Q.; Zheng, H.W.; Wang, G.; Xu, K. Evaluating social sustainability of urban housing demolition in Shanghai, China. *J. Clean Prod.* **2017**, *153*, 26–40. [CrossRef]
- 10. Zhang, G. The historical sites related to the Revolution of 1911 were seriously damaged due to housing demolition. *China Culture Daily*, 2 May 2011.
- 11. Yung, E.L.K.; Zhang, Q.; Chan, E.H.W. Underlying social factors for evaluating heritage conservation in urban renewal districts. *Habitat Int.* **2017**, *66*, 135–148. [CrossRef]

Sustainability **2019**, 11, 4847 20 of 21

12. Zhang, X.; Jiang, J.; Niu, Y.; Song, M. Conservation planning for historic township based on cultural planning: Case of Guangfu Town, Suzhou, China. *Urban Stud.* **2017**, 24, 15–23.

- 13. Chung, H.; Lee, J. Community cultural resources as sustainable development enablers: A case study on Bukjeong Village in Korea compared with Naoshima Island in Japan. *Sustainability* **2019**, *11*, 1401. [CrossRef]
- 14. United Nations. *Transforming Our World: The 2030 Agenda for Sustainable Development;* United Nations: New York, NY, USA, 2015.
- 15. General Office of the State Council of the People's Republic of China. *Some Opinions on Promoting the Development of Cultural and Creative Products in Cultural Heritage Units*; General Office of the State Council of the People's Republic of China: Beijing, China, 2016.
- 16. Jin, H.; Zhao, J.; Liu, S.; Kang, J. Climate adaptability construction technology of historic conservation areas: The case study of the Chinese–Baroque historic conservation area in Harbin. *Sustainability* **2018**, *10*, 3374. [CrossRef]
- 17. Jinglei, L. Research on the complex property of the commercial space in the urban village: The case of Nantou Ancient City. *Dev. Small Cities Towns* **2018**, *4*, 16.
- 18. Wei, H. Research on reconstructing the old building space in inheritance of city culture-taking the architecture of the Taoxichuan in Jingdezhen as an example. In Proceedings of the 2018 International Conference on Management and Education, Humanities and Social Sciences (MEHSS 2018), Hangzhou, China, 14–15 April 2018; Atlantis Press: Paris, France, 2018.
- 19. Sainz, M.A. (Re) Building an image for a city: Is a landmark enough? Bilbao and the Guggenheim Museum, 10 years together. *J. Appl. Soc. Psychol.* **2012**, 42, 100–132. [CrossRef]
- 20. Zhou, X.; Hristova, D.; Noulas, A.; Mascolo, C.; Sklar, M. Cultural investment and urban socio-economic development: A geosocial network approach. *R. Soc. Open Sci.* **2017**, *4*, 170413. [CrossRef]
- 21. Liu, Y.-D. Event and sustainable culture-Led regeneration: Lessons from the 2008 European Capital of Culture, Liverpool. *Sustainability* **2019**, *11*, 1869. [CrossRef]
- 22. Zhou, T.; Zhou, Y.L.; Liu, G.W. Comparison of critical success paths for historic district renovation and redevelopment projects in China. *Habitat Int.* **2017**, *67*, 54–68. [CrossRef]
- 23. Boynton, A.C.; Zmud, R.W. An assessment of critical success factors. Sloan Manag. Rev. 1984, 25, 17–27.
- 24. Toor, S.U.R. Construction professionals' perception of critical success factors for large-scale construction projects. *Constr. Innov.* **2009**, *9*, 149–167. [CrossRef]
- 25. Zhong, Q.Y.; Min, Q.F.; Wu, L.W. The Empirical study of critical success factors of ERP implementation in China. *China Soft Sci.* **2004**, *2*, 73.
- Evans, G.; Shaw, P.; London Metropolitan, U.; Great, B.; Department for Culture, M. The Contribution of Culture to Regeneration in the UK: A Review of Evidence; London Metropolitan University: London, UK, 2004.
- 27. Moradi, F.; Zarabadi, Z.S.S.; Majedi, H. An exploratory study of culture-led urban regeneration principles with the approach of competitiveness promotion. *Bagh E Nazar* **2019**, *16*, 5–16.
- 28. Chiu, Y.H.; Lee, M.S.; Wang, J.W. Culture-led urban regeneration strategy: An evaluation of the management strategies and performance of urban regeneration stations in Taipei City. *Habitat Int.* **2019**, *86*, 1–9. [CrossRef]
- 29. Long, L.M.; Liu, Y.; Zhao, H.J. A preliminary study of color survey method in Drum Backstreet's historical and cultural district in Yu County. *Appl. Mech. Mater.* **2013**, 409–410, 941–944. [CrossRef]
- 30. Carnegie, A.; Norris, M. Strengthening communities, building capacity, combating stigma: Exploring the potential of culture-led social housing regeneration. *Int. J. Hous. Policy* **2015**, *15*, 495–508. [CrossRef]
- 31. Pinto, J.K.; Slevin, D.P. Critical factors in successful project implementation. *IEEE Trans. Eng. Manag.* **1987**, 34, 22–27. [CrossRef]
- 32. Yu, J.H.; Kwon, H.R. Critical success factors for urban regeneration projects in Korea. *Int. J. Proj. Manag.* **2011**, *29*, 889–899. [CrossRef]
- 33. Dixon, T.; Otsuka, N.; Abe, H. Critical success factors in urban brownfield regeneration: An analysis of 'hardcore' sites in Manchester and Osaka during the economic recession (2009–2010). *Env. Plan. A* **2011**, *43*, 961–980. [CrossRef]
- 34. Gunay, Z.; Dokmeci, V. Culture-led regeneration of Istanbul waterfront: Golden Horn Cultural Valley Project. *Cities* **2012**, *29*, 213–222. [CrossRef]
- 35. Yung, E.H.K.; Chan, E.H.W.; Xu, Y. Community-initiated adaptive reuse of historic buildings and sustainable development in the inner city of Shanghai. *J. Urban. Plan. Dev.* **2014**, *140*, 05014003. [CrossRef]

Sustainability **2019**, 11, 4847 21 of 21

36. Yu, T.; Shi, Q.; Zuo, J.; Chen, R. Critical factors for implementing sustainable construction practice in HOPSCA projects: A case study in China. *Sustain. Cities Soc.* **2018**, *37*, 93–103. [CrossRef]

- 37. McManus, C.; Carruthers, C. Cultural quarters and urban regeneration—The case of Cathedral Quarter Belfast. *Int. J. Cult. Policy* **2014**, 20, 78–98. [CrossRef]
- 38. Shen, L.; Song, X.; Wu, Y.; Liao, S.; Zhang, X. Interpretive Structural Modeling based factor analysis on the implementation of Emission Trading System in the Chinese building sector. *J. Clean Prod.* **2016**, 127, 214–227. [CrossRef]
- 39. Yang, J.; Shen, G.Q.; Drew, D.S.; Ho, M. Critical success factors for stakeholder management: Construction practitioners' perspectives. *J. Constr. Eng. Manag.* **2010**, *136*, 778–786. [CrossRef]
- 40. Lu, W.; Yuan, H. Exploring critical success factors for waste management in construction projects of China. *Resour. Conserv. Recycl.* **2010**, *55*, 201–208. [CrossRef]
- 41. Schneeweiss, H.; Mathes, H. Factor-analysis and principal components. *J. Multivar. Anal.* **1995**, *55*, 105–124. [CrossRef]
- 42. Bland, J.M.; Altman, D.G. Statistics notes: Cronbach's alpha. BMJ 1997, 314, 572. [CrossRef]
- 43. Nunnally, J.C. Pshychometric Theory; McGraw-Hill: New York, NY, USA, 1978.
- 44. Lazarević, E.V.; Koružnjak, A.B.; Devetaković, M. Culture design-led regeneration as a tool used to regenerate deprived areas. Belgrade—The Savamala quarter; reflections on an unplanned cultural zone. *Energy Build*. **2016**, *115*, 3–10.
- 45. Cerreta, M.; Daldanise, G.; Sposito, S. Culture-led regeneration for urban spaces: Monitoring complex values networks in action. *Urbani Izziv* **2018**, 29, 9–28. [CrossRef]
- 46. Presence, S. 'Britain's First Media Centre': A history of Bristol's Watershed Cinema, 1964–1998. *Hist. J. Film Radio Telev.* **2019**, 1–29. [CrossRef]
- 47. Griffiths, R. City/culture discourses: Evidence from the competition to select the European Capital of Culture 2008. *Eur. Plan. Stud.* **2006**, *14*, 415–430. [CrossRef]
- 48. Kim, J.Y. Cultural entrepreneurs and urban regeneration in Itaewon, Seoul. Cities 2016, 56, 132–140. [CrossRef]
- 49. Vickery, J. *The Emergence of Culture-Led Regeneration: A Policy Concept and Its Discontents*; Centre for Cultural Policy Studies: Coventry, UK, 2007.
- 50. Gospodini, A. Aspa Gospodini—Culture-led regeneration in European cities: The question of sustainability and critical parameters of culture and leisure epicentres. *disP Plan. Rev.* **2017**, *53*, 66–67. [CrossRef]
- 51. Garcia, B. 'If everyone says so ... ' Press narratives and image change in major event host cities. *Urban. Stud.* **2017**, *54*, 3178–3198. [CrossRef]
- 52. Jung, T.H.; Lee, J.; Yap, M.H.; Ineson, E.M. The role of stakeholder collaboration in culture-led urban regeneration: A case study of the Gwangju project, Korea. *Cities* **2015**, *44*, 29–39. [CrossRef]
- 53. Cruickshank, J. Is culture-led redevelopment relevant for rural planners? The risk of adopting urban theories in rural settings. *Int. J. Cult. Policy* **2018**, 24, 331–349. [CrossRef]
- 54. Field, A.P. Discovering Statistics Using IBM SPSS Statistics: And Sex and Drugs and Rock 'n' Roll; Sage: New York, NY, USA, 1900.
- 55. Zou, P.X.; Zhang, G.; Wang, J. Understanding the key risks in construction projects in China. *Int. J. Proj. Manag.* **2007**, 25, 601–614. [CrossRef]
- 56. Shina, H.; Stevensb, Q. Debates around cultural re-imaging and culture-led urban regeneration: The politics of two festivals in Gwangju and Glasgow. *Asian J. Soc. Sci.* **2014**, *41*, 628–652. [CrossRef]



© 2019 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).