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ONLINE SUSTAINABILITY REPORTING OF CHINESE UNIVERSITIES: A COMPARATIVE ANALYSIS

¹Xiaosong Zheng

*SILC Business School
Shanghai University
20 Chengzhong Road
201899 Shanghai
P.R.China*

Tel.: +861 3 917458 692

Fax: +862 1 69980 017

E-mail: xiaosong.zheng@shu.edu.cn

²Ziqi Wang

*SILC Business School
Shanghai University
20 Chengzhong Road
201899 Shanghai
P.R.China*

Tel.: +861 3 636346 115

Fax: +862 1 69980 017

E-mail: ziqiwang@shu.edu.cn

³Yupei Zhai

*SILC Business School
Shanghai University
20 Chengzhong Road
201899 Shanghai
P.R.China*

Tel.: +861 9 821834 665

Fax: +862 1 69980 017

E-mail: 1982788290@shu.edu.cn

⁴Yi An

*College of Management
Ocean University of China
238 Songling Road
266100 Qingdao
P.R.China*

Tel.: +865 3 266786 362

Fax: +865 3 266781 698

E-mail: ryson9696@hotmail.com

⁵Jinggu Zhang

*College of Business
Shanghai University of Finance
and Economics
College of History Culture and
Tourism*

Jiangxi Normal University

777 Guoding Road

200433 Shanghai

P.R.China

Tel.: +861 8 776151 057

E-mail: 3477136778@qq.com

¹Xiaosong Zheng, PhD, is a professor in Accounting at Tallinn University of Technology, Estonia and Shanghai University, China. He received a PhD in IT from the University of Oulu in 2007. He also holds an MSc in Accounting from the University of Oulu and an MSc in Economics from Hanken School of Economics. He has published widely in business and IT fields.

²Ziqi Wang, is a graduate student at SILC Business School of Shanghai University. He has a strong interest in quantitative research methods and has published papers in financial and management accounting.

³Yupei Zhai is a graduate student at SILC Business School of Shanghai University. She has participated in several research projects and has published a few papers in accounting and

finance. Her current research is on firm valuation and management control.

⁴**Yi An** (*corresponding author*), PhD, is an Associate Professor at Ocean University of China. He obtained PhD in Management Studies from the University of Waikato, New Zealand. His research interests include sustainability reporting, intellectual capital measurement, management and reporting, and public sector management. He has published widely in international accounting and business journals.

⁵**Jinggu Zhang**, MSc, is a PhD candidate at the College of Business of Shanghai University of Finance and Economics. He has a strong interest in empirical studies. He has published a few articles in management and finance.

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ABSTRACT. *This paper aims to assess and compare sustainability reporting (SR) practices of Chinese universities in seven regions of China from an online and comparative perspective. An integrated framework is used to assess and compare SR of Chinese universities. Content analysis is used for data analysis and a comparative approach is emphasised. It is found that all of the sample universities in the seven regions display a large amount of sustainability information on their official websites but none of them publish explicit sustainability reports. Surprisingly, the results show that the sample universities in South China although have the lowest average ranking, actually they perform much better than universities in the other six regions. SR differences are further discussed and explained. It is suggested that governments should play a key role in the SR of universities in China. The environmental dimension is important, thus sustainable development of the urban environment should be encouraged.*

KEYWORDS: sustainability, reporting, online, university, China.

JEL classification: H83, I23, M41.

Introduction

Sustainable development is important for universities as well as students because it will generate many competitive advantages. Instilling public awareness and concepts of sustainability through university courses and research can enhance students' understanding of social, economic, and environmental issues and it will help students become leaders of companies and other administrations in their future careers (An *et al.*, 2020). The sustainable business concept will help people establish a local, national, and global perspective on the meaning of sustainable living and work (Trukhachev *et al.*, 2018; Kozlovskiy *et al.*, 2019; Ceulemans *et al.*, 2015a; Nie *et al.*, 2019; Lušňáková *et al.*, 2019; Razminiene, 2019). Students may keep the environment in mind and appropriately take their social responsibilities in their future careers (Wals, 2014). In addition, if universities can integrate sustainable

initiatives into their daily operations, it would enable them to gain the support of various stakeholders and communities in which they collaborate, and thereby increase their reputations (Lämsä *et al.*, 2008).

In fact, recently a large number of universities in the world are trying to incorporate the concept of sustainability into their curricula, research programs, as well as their community involvement and outreach (Alonso-Almeida *et al.*, 2014, Gibb *et al.*, 2009). Moreover, many universities around the world have begun to produce annual reports or separate sustainability reports and release information more closely related to sustainability such as environmental, social and economic activities, etc. via the Internet. This kind of information helps promote the interaction and supervision of various stakeholders in the sustainable development of universities (Bice *et al.*, 2016).

However, research on online SR of Chinese universities is quite limited. Given China's large number of universities, it is interesting to compare the online SR of Chinese universities in different regions. The main research question in this study is that what are the online SR differences and their reasons for Chinese universities across the country? In this regard, the study compares online SR practices disclosed by the top ten universities in seven different regions of China. A rating framework ("1+6" model where 1 represents "general characteristics" and 6 represents six specific disclosure dimensions: "economic", "environmental", "teaching", "social", "human rights" and "research") is innovatively designed as a tool to analyse the official websites and authoritative media reports of sample universities in order to make reliable judgements. Each university is graded according to this rating framework for further comparative analysis. Universities in all seven regions have published extensive information about their sustainability initiatives through official websites. This research contributes to the research gap on SR in the sector of higher education in China, especially from an online and comparative perspective.

The rest structure of the paper is as follows. The second section reviews the literature on sustainable development initiatives and guidelines in the higher education sector. The third section introduces the research method and the research framework. The fourth section presents, discusses, and compares research results. The last section summarises the main research findings and concludes the study.

1. Literature Review

Sustainability is commonly referred to as "corporate social responsibility" (CSR), "sustainable development", and "sustainability report" for companies (KPMG, 2013). For universities the concept of sustainability is similar. Gasset (1991) first introduced the concept of social responsibilities to the higher education sector and he advocates that universities should also pay attention to social activities and has a responsibility to better serve the public and society. Since then, a sizable number of well-known universities have introduced multiple initiatives to promote policies and practices related to the sustainable development of the higher education sector (Cotton, Motta, 2011). In addition, many universities around the world have signed various national and international declarations about environmental commitments to more effectively promote sustainable development strategies, such as the Halifax Declaration, Tbilisi Declaration, Tarova Declaration, Rio + 20 Declaration (Buhr *et al.*, 2014, Wright *et al.*, 2014).

Similar to companies, some universities tend to disclose information on sustainable development management and actions through sustainability reports or websites to highlight

their efforts, reinforce communication with stakeholders, and bring their activities to the communities in which they operate the co-construction project (Elbassiouny, Elbassiouny, 2019; Hsieh, 2019, Hasanudin *et al.*, 2019; Salmerón-Manzano, Manzano-Agugliaro, 2018; Sinha, Chaudhari, 2018; Tsang *et al.*, 2009; Yarime *et al.*, 2012). In recent years, the number of universities issuing independent sustainability reports has increased, from one in 2004 to about 136 in 2018 as shown by the Global Reporting Initiatives (GRI, 2018). Although this number is insignificant compared to the total number of universities in the world, it has made significant progress in this field. On the other hand, it indicates that SR for universities is still at its early stage and it needs further improvements (Ceulemans *et al.*, 2015b, Adams, 2013). In the process, it is important to involve key stakeholders which would promote the dissemination and institutionalisation of sustainable practices and reports in universities (An *et al.*, 2011). Though there are no universally accepted standards for SR, GRI has established the most widely used guidelines (GRI, 2018). It emphasises the need for organisations to report on the economic, governance, social and environmental aspects of their daily operations (Disterheft *et al.*, 2015; Shephard *et al.*, 2008). The GRI introduced the first guidelines (G1) in 1997 (GRI Guidelines, 2019). Since then, it has developed four versions of the SR guidelines (G1-G4), including some sub-versions (*i.e.*, G3.1). In addition, the GRI has developed some sector-specific guidelines, such as the Energy and Financial Sector Guidelines (Alghamdi *et al.*, 2017; Ceulemans *et al.*, 2015b). As for education, GRI did not provide specific guidelines for this sector. Nonetheless, many researchers in the field believe that universities should not only report on the traditional dimensions such as economic, environmental, and social recommended by the GRI but also include other dimensions such as research, teaching, stakeholder engagement, and community promotion because of their specific characteristics (Bañegil-Palacios, Sánchez-Hernández, 2018).

In the last decade, due to the increasing awareness and interest of universities in sustainable reporting, research in this field has continued to increase (Lozano, 2011; Alonso-Almeida *et al.*, 2015; Belás *et al.*, 2016; Brusca *et al.*, 2018; Cabedo *et al.*, 2018; Bazan *et al.*, 2019; González-Zamar *et al.*, 2020; Huang, Hsieh, 2020). Among these studies, an in-depth analysis of the online sustainability report was conducted on universities in New Zealand and Hong Kong through a multiple case study (An *et al.*, 2018). In the research, researchers used content analysis and interviews to collect data, and they also derived an evaluation framework from previous literature as well as the latest GRI guidelines as the tools for content analysis.

However, research on SR of Chinese universities is quite limited so far (Lu *et al.*, 2019). The existing research either discusses the meaning of social responsibilities for the higher education sector (*e.g.* Han, 2014), or it compares social responsibilities of universities between China and other countries (*e.g.* Kang, 2014; Wang, Liu, 2014). However, very little research has been conducted to comprehensively evaluate and compare SR within Chinese universities. China itself has around 3000 universities and these universities often have different practices and characteristics in terms of SR due to many social and economic factors. Many people think China has a uniform market and/or culture but actually the country shows vast differences in terms of market, culture, etc. Therefore, it would be meaningful to evaluate and compare SR of universities within China to have a better understanding of the Chinese mode of SR. In addition to the online and comparative perspective to study SR of Chinese universities, this study also takes a few COVID-19 factors into account in SR assessment as COVID-19 factors are part of important sustainability indicators and they provide a good window to further assess and compare SR. Thus, this study aims to fill in the research gap in SR and its contribution is twofold: first, a comprehensive framework is built up to assess SR

of Chinese universities across the country taking into account some COVID-19 factors. Second, a comparative approach is used in the data analysis for Chinese universities because the Chinese higher education sector should not be considered as a uniform one. SR results are compared, differences are explained and discussed, and policy implications are outlined.

2. Research Method and Framework

In this study, content analysis is used as the main research method. The whole China is divided into seven regions: Northeast, North, East, South, Central, Northwest, and Southwest. Each region is represented by 10 universities, and the whole sample consists of a total of 70 universities. The top 10 universities from each region were chosen based on the prestigious 2019 Alumni Association’s latest ranking (The ranking of Chinese universities in the network of Erishen alumni association, 2019). The Alumni Association Ranking is one of the most influential authoritative and credible university rankings in China. The following table (*Table 1*) presents the sample universities selected in this study.

Table 1. Sample universities

Region	University
Northeast	Jilin University, Harbin Institute of Technology, Northeastern University, Dalian University of Technology, Northeast Normal University, Harbin Engineering University, Liaoning University; Heilongjiang University, Northeast Forestry University, Dongbei University of Finance and Economics
North	Peking University, Tsinghua University, University of Chinese Academy of Sciences, Renmin University of China, Tianjin University, Nankai University, Beijing Normal University, Beijing University of Aeronautics and Astronautics, Beijing Institute of Technology, China Agricultural University
East	Fudan University, Zhejiang University, Shanghai Jiao Tong University, Nanjing University, University of Science and Technology of China, Shandong University, Xiamen University, Tongji University, Southeast University, East China Normal University
South	Sun Yat-Sen University, South China University of Technology, Jinan University, South China Normal University, South China Agricultural University, Shenzhen University, Guangxi University, Guangdong University of Technology, Southern Medical University, Guangdong University of Foreign Studies
Central	Wuhan University, Huazhong University of Science and Technology, Central South University, Hunan University, Central China Normal University, Wuhan University of Technology, Huazhong Agricultural University, Zhengzhou University, China University of Geosciences (Wuhan), Hunan Normal University
Northwest	Xi'an Jiao Tong University, Northwestern Polytechnical University, Lanzhou University, Northwestern University, Xidian University, Northwest Agriculture and Forestry University, Shaanxi Normal University, Chang'an University, Xinjiang University, Northwest Normal University
Southwest	Sichuan University, Chongqing University, University of Electronic Science and Technology of China, Southwest University, Southwest Jiao Tong University, Kunming University of Science and Technology, Yunnan University, Southwestern University of Finance and Economics, Guizhou University, Southwest University of Political Science and Law

Source: created by the authors.

All these universities are ranked in the top 130 in China. Therefore, these sample universities represent the best Chinese universities and they are at the same level which makes it more reliable for comparative purposes. In particular, we made a statistical analysis of the

average ranking of sample universities in different regions to explore whether the ranking of universities is consistent with their sustainability levels.

The average ranking of the top ten universities in these seven regions is shown in the following table (*Table 2*). Among them, universities in North China are ranked the highest, with an average ranking of 14.5. East China is a bit behind, with an average ranking of 15.6. Both of them are far ahead. The average ranking of universities in Central China is 35.2, leaving a gap with the bottom four regions. At the bottom of the list is South China, with an average ranking of 78.2.

Table 2. The average ranking of the sample universities

Region	The average ranking
North	14.5
East	15.6
Central	35.2
Northwest	62.7
Southwest	63.2
Northeast	64.4
South	78.2

Source: own calculations.

The universities mainly use innovative methods, implement research-based education, and develop leadership skills to train talents with a sense of sustainability and then contribute to the sustainable development of the region. Therefore, universities play a vital role in promoting regional development so that the region can achieve sustainable development. Both in environmental protection and economic development as well as scientific research and education, universities have become important strategic partners for the sustainable development of the region. Universities also play an essential role in matching the strategic map of the region's sustainable development vision.

Through browsing websites of the sample universities, we found that these universities are gradually developing a series of teaching and research programs related to sustainability, as well as some other sustainable development programs, such as those related to environment and society. In this study, in order to determine the sustainability indicators of universities in each region and compare them, we explored and compared their sustainability programs via the Internet. For research purposes, the official websites of the sample universities are the main source of data collection since the websites usually consist of a wide range of information relating to sustainability. In addition to the official websites, authoritative social media reports also serve as our data source.

In this study, the content analysis of university websites is the main research method. By analysing the websites and SR of 70 universities in these seven regions, the sustainability disclosure levels of universities in these seven regions are determined and compared. Moreover, the framework is mainly measured from two perspectives, including general characteristics (*Table 3*) and specific disclosures (*Table 4*).

In order to give each sample university a quantitative rating, we designed a scoring system with a total score of 100 points in "1+6" dimensions. The first perspective is to rate "General Characteristics", as shown in the following table. For this dimension, the full score is 10.

Table 3. Rating framework for general characteristics

General characteristics	Rating criteria
If there is a web map indicating sustainability-related information is available	0 for no, 1 for yes
If there is a specific section for sustainability reporting on the website	
If there is a specific sustainability office/committee or alike	
If there is a statement of vision and strategy for sustainability	
If there is a regular stand-alone sustainability report online	
If the online sustainability report has been assured or audited	
Identification of stakeholders' Particular emails for the contact of sustainability issues	
Online forums for communication of sustainability issues	
Social media particularly for sustainability information	
Online surveys particularly for sustainability	

Source: created by the authors.

The second perspective is the rating of the six specific disclosure dimensions, as shown in *Table 4*, with a full score of 90. Among them, “economy” has a full score of 9; “environmental” has a score of 18; “teaching” has a score of 18; “social” has a score of 21; “human rights” has a score of 12; “research” has a score of 12.

Table 4. Rating framework for specific disclosures

Dimensions of specific disclosures	Characteristics of specific disclosures	Rating criteria
Economic	<ol style="list-style-type: none"> 1. University-company cooperation 2. International exchange and cooperation 3. Economic performance 4. Contribution to the local economy 5. Indirect economic impacts 6. Donation of funds 	Total score:9 None: 0; Qualitative description: 1; Quantitative description: 1.5
Environmental	<ol style="list-style-type: none"> 1. Environmental infrastructure 2. Concept of ecological civilisation 3. Garbage classification 4. Discharge up to standard 5. Energy-saving measures 6. A smoke-free campus 7. Greening 8. Health prevention and control mechanism 9. Food 10. Waste recovery and utilisation 11. Energy conservation emissions reduction 12. Environmental investment 	Total score:18 None: 0; Qualitative description:1; Quantitative description: 1.5
Teaching	<ol style="list-style-type: none"> 1. Education and schooling conditions 2. Discipline construction 3. Sustainability related Policies/incentives 4. Sustainability related degree programs 5. Sustainability related courses 6. Sustainability related scholarships 7. Sustainable literacy assessment 8. Non-curriculum education 9. Administrative support 	Total score:18 None: 0; Qualitative description:1; Quantitative description: 2

Table 4 (continuation). Rating framework for specific disclosures

Dimensions of specific disclosures	Characteristics of specific disclosures	Rating criteria
Social	<ol style="list-style-type: none"> 1. Social assistance 2. Volunteer service 3. Community activities and services 4. Internship 5. National policy 6. Procurement bidding 7. Infrastructure utilisation 8. Social service participation 9. Comply with relevant legislation 10. Appeal mechanism for social impact 11. Online teaching during the COVID-19 outbreak 12. A series of COVID-19 pandemic publicity activities 	Total score:21 None: 0; Qualitative description:1; Quantitative description: 1.5 except for items 11 and 12 which are assigned with a number 3
Human rights	<ol style="list-style-type: none"> 1. Employee safety protection 2. Students’ rights protection 3. The rights and interest’s protection 4. Recruitment 5. Safety and health service 6. Training and education 7. Diversity and equal opportunity 8. Equal pay for equal work 	Total score:12 None: 0; Qualitative description:1; Quantitative description: 1.5
Research	<ol style="list-style-type: none"> 1. Sustainability related policies/incentives 2. Sustainability related centers/labs 3. Sustainability related programs/projects 4. Sustainability related grants/funding 5. Sustainability related publications 6. Sustainability related research support 	Total score:12 None: 0; Qualitative description:1; Quantitative description: 2

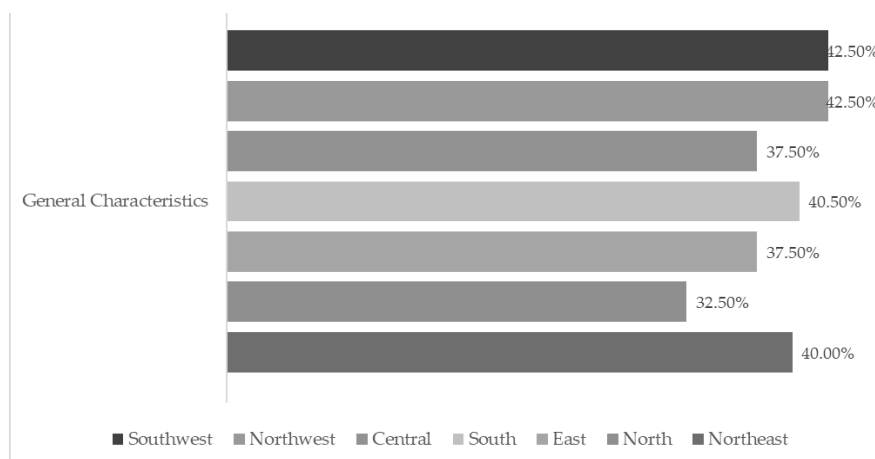
Notes: The assessment for “online teaching during the COVID-19 outbreak” and “a series of COVID-19 pandemic publicity activities” are slightly different from other items in the “social” dimension: the score of quantitative description is 3 for these two items because they represent a key sustainability concern, currently and in the near future.

Source: created by the authors.

3. Research and Discussion

3.1 Comparison of General Characteristics

For the “General Characteristics” perspective, 70 universities in seven regions are rated according to the rating framework in *Table 3*, and the percentage of an average score of the sample universities in the region is calculated for comparison purposes (see *Appendix I*). The comparison of general characteristics for online SR is presented in *Figure 1*. It is not difficult to find that universities in all regions perform poorly overall, and the highest score is just 42.5%. The worst region is North China, with a score of only 32.5%, lagging behind other regions. The average score of these seven regions is around 40%. All of the 70 universities in these seven regions have specific offices for sustainability but none of the universities has a regular stand-alone report. Thus, no university in these seven regions has their reports assured or audited by a third-party independent agency.



Source: own calculations.

Figure 1. Comparison of General Characteristics

A stand-alone sustainability report can provide information users with a more systematic and comprehensive picture of the university’s sustainability initiatives and implementation. If there is a lack of regular special reports, it will be a trouble for information users to collect available information from massive information which will undoubtedly affect their favorable opinion of universities. In a nutshell, regular SR is essential.

All universities do not identify stakeholders for online SR. Also, all universities do not provide stakeholders with particular e-mails for the contact of sustainability issues. Similarly, no university uses social media (e.g. Weibo) or other online forums to communicate sustainability issues with stakeholders. The findings show that in general, all sample universities do not pay enough attention to stakeholders and lack appropriate communication channels. In the future, they need to enhance communication with stakeholders on sustainability issues. It requires further improvement in this regard.

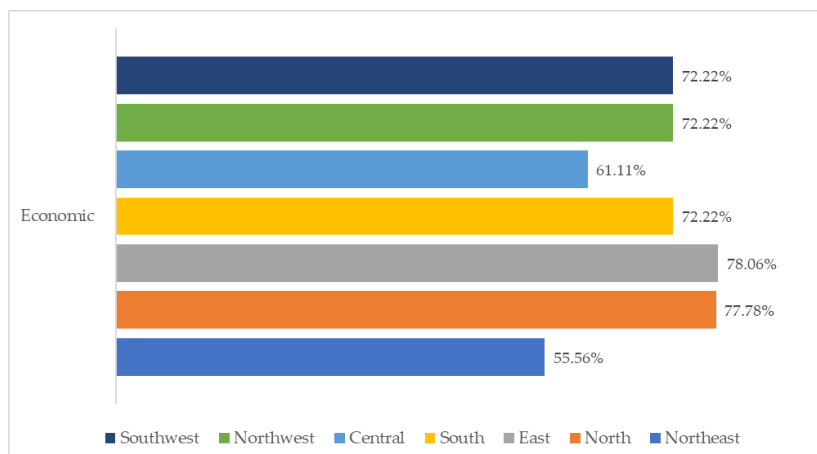
Based on the results, we believe that although the universities in these seven regions strive to pay great importance to SR, they did not provide enough sustainability information to stakeholders. Therefore, it is difficult for stakeholders and the public to follow the SR process of the universities. Meanwhile, all the universities need to make efforts to improve the accessibility and visibility of relevant information to better share sustainability issues with information users.

3.2 Comparison of Specific Disclosures

For the “Specific Disclosures” perspective, all 70 universities in seven regions are graded according to the rating framework in *Table 4* and the average score percentage for six specific dimensions in each region is calculated for further comparison (see *Appendix 2*). This study measures the level of SR from the following six dimensions: “economic”, “environmental”, “teaching”, “social issues”, “human rights” and “research”.

3.3 Economic

Firstly, *Figure 2* presents a comparison of the “economic” dimension disclosure among universities in these seven regions.



Source: own calculations.

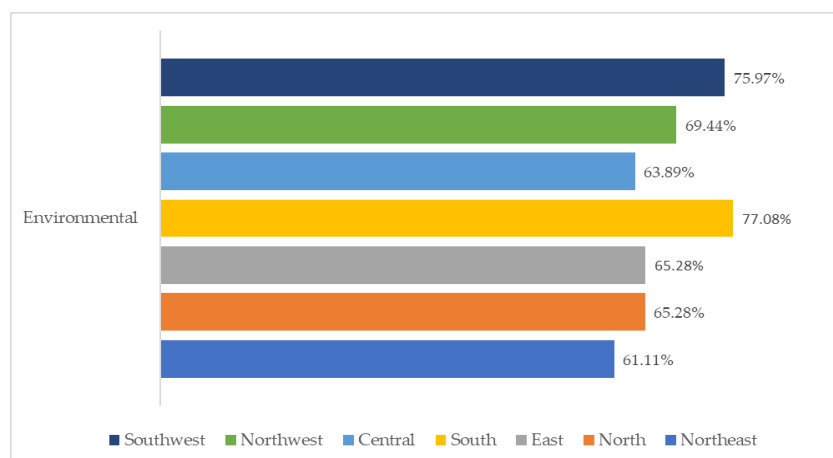
Figure 2. Comparison of “Economic” Dimension Disclosure

It regards the disclosure of the economic dimension which is the best performing dimension. Interestingly, all universities reported the seven items in the “economic” dimension, there are “university-firm cooperation”, “international exchange and cooperation”, “economic performance”, “contribution to local economy”, “indirect economic impacts” and “donation of funds”. However, in terms of the level of disclosure, some only have qualitative disclosure while others disclose more detailed information through quantitative data which results in different scores.

The region that has the most detailed disclosure is South China, the average percentage is 77.08%. East China has the highest number – 78.06%. North China has the second highest number – 77.78%. North China has the lowest number – 55.56%.

3.4 Environmental

Figure 3 shows a comparison of the “environmental” dimension disclosure among universities in these seven regions.



Source: own calculations.

Figure 3. Comparison of “Environmental” Dimension Disclosure

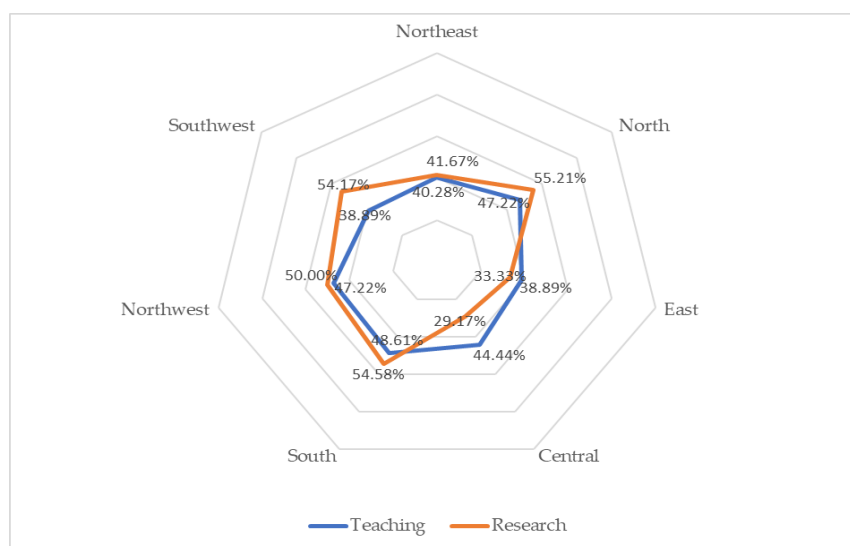
For the reporting of the “environmental” dimension, South China universities receive the highest score of 77.08%, followed by the Southwest at 75.97% and the Northeast universities gain the lowest at 61.11%. All universities have “environmental infrastructure”, “the concept of ecological civilisation”, “greening” but on the “garbage classification”, the performance of universities in different regions vary significantly. In fact, all the universities in the seven regions have related qualitative descriptions of various aspects of the environmental dimension but the South region universities finally obtain the highest score because the disclosure of quantitative descriptions is significantly better than that in other regions. Therefore, we further conduct a deeper analysis and exploration of the overall environment in the South region and explanations, as well as discussions, are presented.

Due to urban population growth and rapid economic development in China, the consumption of freshwater, energy, and raw materials has increased rapidly. However, the effective utilization rate is still low and urban ecological and environmental problems are becoming increasingly acute. Especially it is evident with the problems of deterioration of urban air quality, urban water quality crisis, waste pollution on urban solid, the contradiction between residential commercial area and compression of urban green space.

First of all, the importance of universities emphasizing environmental issues reflects the attitude of local municipal governments towards environmental issues. Since the State Council’s “Ambient Air Quality Standards” published in February 2012, the country air quality has been greatly improved. According to the daily environmental monitoring data of cities, Haikou, located in the north of Hainan Island, has been long ranked number one for its environment. It is also a coastal city with a distinctive seaside scenery. In addition, more than half of the top ten cities with good air quality are located in the South, showing that the location has played a key role in influencing air quality issues. Secondly, in South China, the average temperature of the coldest month is more than 10 degrees Celsius, the extreme minimum temperature is above -4 degrees Celsius, and the number of days with a daily average temperature above 10 degrees Celsius is more than 300 days. Moreover, the annual precipitation in most places is 1400-2000 mm. All these geographical advantages make a “green” landscape that can be seen everywhere in the South China cities. Thus, the proportion of urban green areas in South China is generally higher than that of other areas and its rich marine resources also fully guarantee the water resources. Finally, cities in South China often respond positively to environmental policies. For instance, Guangzhou has actively promoted the “Guangzhou Municipal Waste Separation Management Regulations” which has played a leading role in promoting the sustainable development of the universities in terms of the environment. Due to the above reasons and discussions, the excellent performance of South China’s universities in the environmental dimension can be justified.

3.5 Teaching and Research

Figure 4 shows a comparison of “teaching” and “research” dimensions disclosure among universities in these seven regions. Since the reporting of the “Research” dimension was very similar to the “Teaching” dimension, the combination of two dimensions could show the most intuitive attitude of Chinese universities to sustainable development.



Source: own calculations.

Figure 4. Comparison of “Teaching” and “Research” Dimensions Disclosure

In terms of the “teaching” dimension, South China gets the highest score of 48.61%, then followed by North and Northwest with 47.22%. While other regions receive a score lower than 45%, the worst is Southwest and East, both with 38.89%. Two items in this category, including “education and schooling conditions” and “discipline construction”, are reported by all the universities in all seven regions. However, few universities report “sustainable literacy assessment” and “sustainability related scholarships”.

Overall, the performance of “teaching and research” dimensions is not particularly good. Most environment-related universities provide more courses related to sustainability and the overall education popularization in this area is not too good. It is recommended to use effective methods like lectures or questionnaires to promote the overall sustainability condition of the university. In terms of total points gained, North universities have better performance than universities in the other six regions. This advantage can be attributed to the sustainable development of the urban environment which is reflected in university education strategies.

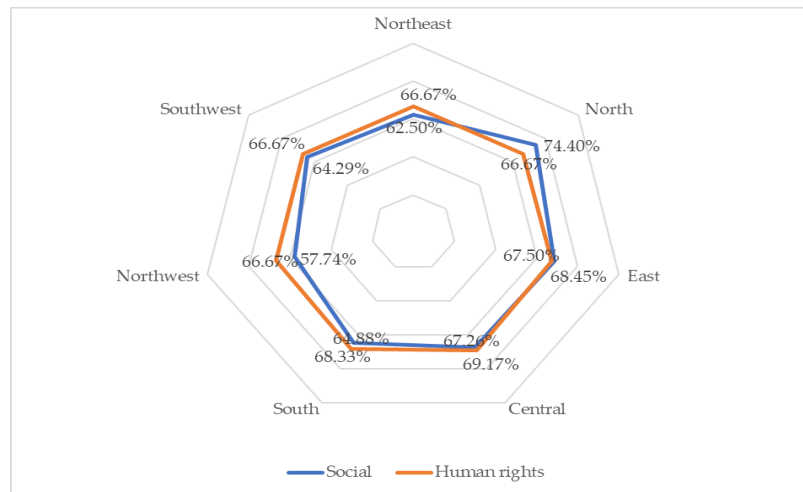
Simultaneously, the highest score of 55.21% is also obtained by North universities, followed by South and Southwest at 54.58% and 54.17% respectively. The worst-performing region is the Central Zone, with a score of only 29.17%, falling behind other regions.

Furthermore, there are environmental science research institutes in each region that mainly responsible for monitoring and they all have cooperation with universities to varying degrees. Monitoring activities are carried out on the atmosphere, soil, water, and green plants but the specific data are undisclosed. Actually, all three regions that perform well in the research dimension have something in common *i.e.* these research institutes pay more attention to talent cultivation and have closer cooperation with universities.

3.6 Social and Human Rights

Lastly, *Figure 5* shows a comparison of “social” and “human rights” dimensions disclosure among universities in these seven regions. The overall performance in “social” and “human rights” dimensions of these seven regions are consistent which shows that the

universities are doing well in the distribution of social resources and the protection of human rights.



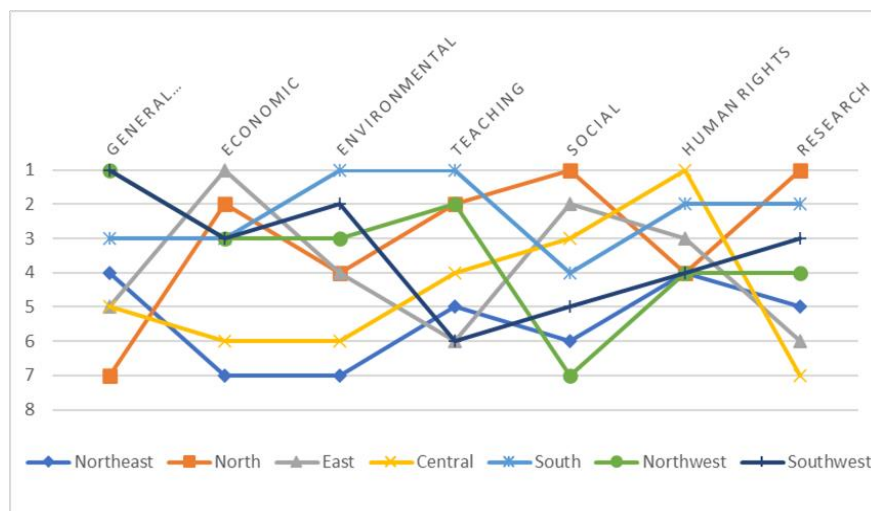
Source: own calculations.

Figure 5. Comparison of “Social” and “Human rights” Dimensions Disclosure

For the “social” dimension, North China gets the highest score of 74.40% which is the only region with a proportion of more than 70%. East China is ranked as the second at 68.45%, Central China is at third place with 67.26%, and the percentages of other universities do not exceed 65%. The worst region is Northwest, with a number of 57.74%. On a smaller scale, all universities do well in the sub-dimensions “social assistance” and “volunteer service”. The performance of the two sub-dimensions: “supplier assessment for impacts on society”, “appeal mechanism for social impact” is fairly unsatisfactory.

For the disclosure of the “human rights” dimension, as shown in Figure 5, there is little variation in performance across the seven regions. The difference between the highest score and the lowest score is less than 2%. Central China performs the best and gets the highest score of 69.17%. The following sub-dimensions are disclosed by all universities: “employee safety protection”, “students’ rights protection”, “the rights and interests protection” and “recruitment”. However, the scores for “safety and health reserve” are not ideal. Beyond that, some universities do not use quantitative data to disclose “human rights” which should be strengthened in the future.

Through the data analysis of the specific dimensions’ disclosure, it has been found that the specific sustainability disclosures in Chinese universities have some common features. For example, on the “economic” and “human rights” dimensions, all universities perform relatively well. However, in terms of “teaching” and “research”, the majority of regions get a low score.



Source: own calculations.

Figure 6. The Ranking Changes in Each Region in Each Dimension

Figure 6 shows the ranking changes in each region in each dimension. Compared among the universities in these seven regions, universities in South China perform the best for the reporting of two sustainability dimensions out of six. Likewise, universities in North China perform the best on two of the six dimensions. However, in terms of the average total score, South China is better. This is mainly because the assessment of South China's universities has no obvious shortcomings and scores are all above the average while North China's universities are ranked the last in one dimension. Therefore, the overall performance of the universities in South China should be better than any other region in terms of specific sustainability information disclosure. The following factors may explain the situation.

First, the policy is the primary factor. The resources of universities are mainly planned and allocated by the Chinese government. The policies developed by the government have a great impact on the SR of universities in different regions. Whether the sample universities are directly affiliated with the Ministry of Education of China has an impact on the disclosure of their sustainability information (MoE, 2020). Generally speaking, the universities under the control of the Ministry of Education of China are required to implement government policies, so it is not surprising that they perform better in SR. In addition to political factors at the national level, the local government policies in different regions also greatly vary. For example, more developed regions such as South and North China, have flexible policies which promote the sustainable input of talents and funds. As a result, the quality of local universities has also been steadily improved and then the regional gap is continuously widened. As for the specific disclosure dimension of "Environment", different regions pay different attention to environmental protection. The environmental sub-dimensions "garbage classification" also varies greatly among different regions. Only universities in Shanghai and some universities in South China have responded to the call and implemented garbage classification ahead of time.

Secondly, the different level of economic development among regions is a crucial factor. The level of regional economic development is unbalanced among regions and it has a direct impact on the university's SR. If the regional economy develops well and funding is abundant, the universities will have sufficient financial budget and scientific research funds. Instead, in the less developed regions, such as the Northwest region, the universities do not

have strong financial investments and the position is also disadvantageous. All these factors will affect the attraction of high-end talents and enrollment of outstanding students. Similarly, adequate education funds play a positive role in the formation of sustainable research platforms and the implementation of major sustainable research projects. As a result, the comprehensive competitiveness gap of universities in different regions is gradually formed and increased. The level of sustainable development varies from region to region then.

Last but not the least, the different competitive pressures faced by different regions are also important reasons. The density of universities in different regions is different, and so is competitive pressure. The higher density of universities is, the more substitutable universities are and the greater the competitive pressure is. Therefore, in order to attract better students and teachers as well as obtain more education funds, universities in this region have stronger motivation to develop themselves to improve the image and popularity. Therefore, a competitive advantage is created. It is well known that North and South China have a high density of universities which may account for the better performance of these two regions.

However, we have to admit that the SR of Chinese universities still needs to be improved. None of the universities have regular reports on sustainability which remains a big gap between domestic and foreign universities.

Conclusions

The study divides China into seven regions and compares the online SR from the top 10 universities in these seven regions. Based on the results, it is found that Chinese universities are trying to pay more attention to their SR to report their sustainability information to stakeholders and users on their official websites. This can be seen from the fact that all of the 70 sample universities have development planning offices for this purpose. Likewise, sustainability disclosures in Chinese universities have something in common. That is, the performance of universities in different regions is roughly similar in different dimensions and items. For example, on the “economic” and “human rights” dimensions, all universities performed relatively well. However, in terms of “teaching” and “research”, the vast majority of regions get a low score. In terms of the total score, it is found that universities in South China perform much better than that of other regions, followed by universities in North China. It is surprising that the SR disclosure level of universities is not in proportion to its ranking. South China, the best-performing region, happens to have the lowest average ranking. This is mainly due to the fact that South China has no shortcomings in the performance of all dimensions and performs the best in the “environmental” dimension due to the vigorously promoted sustainable development of the urban environment.

However, all sample universities have not identified their key stakeholders, lack specific communication forums, and social media to communicate their sustainability efforts to information users. Similarly, all universities lack regular independent sustainability reports. In future reporting practices, these areas need to be improved.

This study has some limitations. First of all, this study is only based on a survey of the top 10 public universities in each region. Future studies can use the framework of this study to evaluate and compare SR levels of different types of colleges and universities in China such as the private ones. More sample universities can be included for a better comparison. Secondly, this study only analyses the differences from a regional perspective. Future research may consider reclassifying and selecting diverse sustainability factors for evaluation and comparison purposes.

References

- Adams, C.A. (2013), "Sustainability reporting and performance management in universities: challenges and benefits", *Sustainability Accounting, Management and Policy Journal*, Vol. 4 No 3, pp.384-392, doi.org/10.1108/SAMPJ-12-2012-0044.
- Alghamdi, N., Den Heijer, A., De Jonge, H. (2017), "Assessment tools' indicators for sustainability in universities: an analytical overview", *International Journal of Sustainability in Higher Education*, Vol. 18 No 1, pp.84-115, doi.org/10.1108/IJSHE-04-2015-0071.
- Alonso-Almeida, M.M., Marimon, F., Casani, F., Rodriguez-Pomeda, J. (2015), "Diffusion of sustainability reporting in universities: current situation and future perspectives", *Journal of Cleaner Production*, Vol. 106, pp. 144-154, doi.org/10.1016/j.jclepro.2014.02.008.
- Alonso-Almeida, M.D.M., Llach, J., Marimon, F. (2014), "A closer look at the 'global reporting initiative' sustainability reporting as a tool to implement environmental and social policies: a worldwide sector analysis", *Corporate Social Responsibility and Environmental Management*, Vol. 21 No 6, pp.318-335, doi.org/10.1002/csr.1318.
- An, Y., Davey, H., Eggleton, I. (2011), "Towards a comprehensive theoretical framework for voluntary IC disclosure", *Journal of Intellectual Capital*, Vol. 11 No 4, pp.571-585, doi.org/10.1108/14691931111181733.
- An, Y., Davey, H., Harun, H., Jin, Z., Qiao, X., Yu, Q. (2020), "Online sustainability reporting at universities: the case of Hong Kong", *Sustainability Accounting, Management and Policy Journal*, Vol. 11 No 5, pp.887-901, doi.org/10.1108/SAMPJ-06-2018-0161.
- An, Y., Qiao, X., Zhai, S., Zheng, X. (2018), "Online social responsibility reporting at universities: a comparative study between New Zealand and Hong Kong", *Transformations in Business and Economics*, Vol. 17 No 3, pp.497-506.
- Bañegil-Palacios, T.M., Sánchez-Hernández, M.I. (2018), "The challenge to foster foreign students' experiences for sustainable higher educational institutions", *Sustainability*, Vol. 10 No 495, pp.1-16, doi.org/10.3390/su10020495.
- Bazan, C., Datta, A., Gaultois, H., Shaikh, A., Gillespie, K., Jones, J. (2019), "Effect of the University in the Entrepreneurial Intention of Female Students", *International Journal of Entrepreneurial Knowledge*, Vol. 7, No 2, pp.73-97, doi.org/10.2478/IJEK-2019-0012.
- Belás, J., Nguyen, A., Smrčka, L., Kolembus, J., Cipovová, E. (2016), "Financial Literacy of Secondary School Students. Case Study from the Czech Republic and Slovakia", *Economics and Sociology*, Vol. 9, No 4, pp.191-206.
- Bice, S., Coates, H. (2016), "University sustainability reporting: taking stock of transparency", *Tertiary Education and Management*, Vol. 22 No 1, pp.1-18, doi.org/10.1080/13583883.2015.1115545.
- Brusca, I., Labrador, M., Larran, M. (2018), "The challenge of sustainability and integrated reporting at universities: a case study", *Journal of Cleaner Production*, Vol. 188, pp.347-354, doi.org/10.1016/j.jclepro.2018.03.292.
- Buhr, N., Gray, R., Milne, M.J. (2014), "Histories, rationales, voluntary standards and future prospects for sustainability reporting: CSR, GRI, IIRC and beyond", in: J. Bebbington, J. Unerman, B. O'Dwyer, (eds.) *Sustainability Accounting and Accountability*, London: Routledge, pp.51-71.
- Cabedo, L., Royo, M., Moliner, L., Guraya, T. (2018), "University social responsibility towards engineering undergraduates: The effect of methodology on a service-learning experience", *Sustainability*, Vol. 10 No 1823, pp.1-17, doi.org/10.3390/su10061823.
- Ceulemans, K., Lozano, R., Alonso-Almeida, M.D.M. (2015a), "Sustainability reporting in higher education: Interconnecting the reporting process and organisational change management for sustainability", *Sustainability*, Vol. 7 No 7, pp.8881-8903, doi.org/10.3390/su7078881.
- Ceulemans, K., Molderez, I., Van Liedekerke, L. (2015b), "Sustainability reporting in higher education: a comprehensive review of the recent literature and paths for further research", *Journal of Cleaner Production*, Vol. 106, pp.127-143, doi.org/10.1016/j.jclepro.2014.09.052.
- Cotton, M., Motta, B.H. (2011), *Engaging with environmental justice: Governance, education and citizenship, Inter-Disciplinary*, United Kingdom: Oxford.
- Disterheft, A., Caeiro, S., Azeiteiro, U.M., Filho, W.L. (2015), "Sustainable universities – a study of critical success factors for participatory approaches", *Journal of Cleaner Production*, Vol. 106, pp.11-21, doi.org/10.1016/j.jclepro.2014.01.030.
- Elbassiouny, D., Elbassiouny, N. (2019), "Diversity, corporate governance and CSR reporting: A comparative analysis between top-listed firms in Egypt, Germany and the USA", *Management of Environmental*

- Quality: An International Journal*, Vol. 30, No 1, pp.116-136.
- Gasset, J.O.Y. (1991), *Mission of University*, Revised. Transaction Publishers: London.
- Gibb, A., Haskins, G., Robertson, I. (2009), "Leading entrepreneurial university: meeting the entrepreneurial development needs of higher education institutions", *National Council for Graduate Entrepreneurship (NCGE)*, United Kingdom.
- González-Zamar, M.D., Ortiz Jiménez, L., Sánchez Ayala, A., Abad-Segura, E. (2020), "The impact of the university classroom on managing the socio-educational well-being: A global study", *International Journal of Environmental research and Public Health*, Vol. 17, No 931, pp.1-27, doi.org/10.3390/ijerph17030931.
- GRI Guidelines (2019), *G4 sustainability reporting guidelines*, available at, <https://www.globalreporting.org/resource/library/grig4-part1-reporting-principles-and-standard-disclosures.pdf>, referred on 20/05/2020.
- GRI (2018), *GRI Sustainability Disclosure Database*, available at, <http://database.globalreporting.org/>, available at, referred on 20/05/2020.
- Han, X. (2014), "Cultivation of socialist core values and responsibility of universities", *Higher Education China*, Vol. 7, No 1, pp.4-7, [Cultivation of socialist core values and responsibility of universities, in *Chinese*].
- Hasanudin, A.I., Yuliansyah, Y., Said, J., Susilowati, Ch., Muafi. (2019), "Management control system, corporate social responsibility, and firm performance", *Entrepreneurship and Sustainability Issues*, Vol. 6, No 3, pp.1154-1168.
- Hsieh, H.C.L. (2019), "Applying action research in design curricula to fulfil university social responsibility – A case study of the Pnguu community of the Tsou Tribe", *Sustainability*, Vol. 11 No 7132, pp.1-18, doi.org/10.3390/su11247132.
- Huang, Y.-M., Hsieh, M.-Y. (2020), "An interdisciplinary research on students' employability in technology education to advance higher education enrolment sustainability", *Sustainability*, Vol. 12 No 1806, pp.1-16, doi.org/10.3390/su12051806.
- Kang, L. (2014), "Practical research on voluntary social responsibility information disclosure in colleges and universities", *Modern Education Management*, Vol. 10, No 1, pp.52-55, [Practical research on voluntary social responsibility information disclosure in colleges and universities, in *Chinese*].
- KPMG (2013), *The KPMG Survey Result of Corporate Responsibility Reporting: Executive Summary*.
- Kozlovskiy, S., Baidala, V., Tkachuk, O., Kozyrskaya, T. (2019), "Management of the Sustainable Development of the Agrarian Sector of the Regions of Ukraine", *Montenegrin Journal of Economics*, Vol. 14, No 4, pp.175-190.
- Lämsä, A.M., Vehkaperä, M., Puttonen, C., Pesonen, H.L. (2008), "Effect of business education on woman and men students' attitude on corporate responsibility in society", *Journal of Business Ethics*, Vol 82, pp.45-58, doi.org/10.1007/s10551-007-9561-7.
- Lozano, R. (2011), "The state of sustainability reporting in universities", *International Journal of Sustainability in Higher Education*, Vol. 12, No 1, pp.67-78, doi.org/10.1108/14676371111098311.
- Lušňáková, Z., Juričková, Z., Šajbidorová, M., Lenčesová, S. (2019), "Succession as a sustainability factor of family business in Slovakia. Equilibrium", *Quarterly Journal of Economics and Economic Policy*, Vol. 14, No 3, pp.503-520.
- Lu, Y., Dan, E., Guo, Y., Song, Y., Liu, X. (2019), "Government-led sustainability reporting by China's HEIs", *Journal of Cleaner Production*, Vol. 230, No 1, pp.445-459, doi.org/10.1016/j.jclepro.2019.04.360.
- Nie, Z., Zurlo, F., Camussi, E., Annovazzi, C. (2019), "Service ecosystem design for improving the service sustainability: A case of career counselling services in the Italian higher education institution", *Sustainability*, Vol. 11 No 1427, pp.1-24, doi.org/10.3390/su11051427.
- Razminiene, K. (2019), "Circular economy in clusters' performance evaluation. Equilibrium", *Quarterly Journal of Economics and Economic Policy*, Vol. 14, No 3, pp.537-559.
- Salmerón-Manzano, E., Manzano-Agugliaro, F. (2018), "The higher education sustainability through virtual laboratories: The Spanish university as case of study", *Sustainability*, Vol. 10 (11) No 4040, pp.1-22, doi.org/10.3390/su10114040.
- Shephard, K. (2008), "Higher education for sustainability: seeking affective learning outcomes", *International Journal of Sustainability in Higher Education*, Vol. 9, No 1, pp.87-98, doi.org/10.1108/14676370810842201.
- Sinha, S.N., Chaudhari, T. (2018), "Impact of CSR on learning outcomes", *Management of Environmental Quality: An International Journal*, Vol. 29, No 6, pp.1026-1041.
- The ranking of Chinese universities in the network of Erishen alumni association (2019), available at, <http://www.cuaa.net/>, referred on 24/02/2020.

- Trukhachev, V., Sklyarov, I., Sklyarova, Y., Gorlov, S., Volkogonova, A. (2018), "Monitoring of Efficiency of Russian Agricultural Enterprises Functioning and Reserves for Their Sustainable Development", *Montenegrin Journal of Economics*, Vol. 14, No 3, pp.95-108.
- Tsang, S., Welford, R., Brown, M. (2009), "Reporting on community investment", *Corporate Social Responsibility and Environmental Management*, Vol. 16, No 3, pp.123-136, doi.org/10.1002/csr.178.
- MoE (2020), Ministry of education of the People's Republic of China, universities directly under the ministry, available at, http://www.moe.gov.cn/jyb_zzjg/moe_347/201708/t20170828_312562.html, referred on 27/02/2020.
- Wals, A.E. (2014), "Sustainability in higher education in the context of the UNDES: a review of learning and institutionalization processes", *Journal of Cleaner Production*, Vol. 62, pp.8-15, doi.org/10.1016/j.jclepro.2013.06.007.
- Wang, S., Liu, G. (2014), "Essential nature, implementation mechanism and governance of university social responsibility", *Education Research*, Vol. 35, No 1, pp.85-93, [Essential nature, implementation mechanism and governance of university social responsibility, *in Chinese*].
- Wright, T. (2004), "The evolution of sustainability declarations in higher education", in: P.B. Corcoran, A.E.J. Wals (eds.), *Higher Education and the Challenge of Sustainability*, Springer: Dordrecht, pp.7-19.
- Yarime, M., Trencher, G., Mino, T., Scholz, R., Olsson, L., Ness, B., Frantzeskaki, N., Rotmans, J. (2012), "Establishing sustainability science in higher education institutions: towards an integration of academic development, institutionalization, and stakeholder collaborations", *Sustainability Science*, Vol. 7 No 1, pp.101-113, doi.org/10.1007/s11625-012-0157-5.

KINIJOS UNIVERSITETŲ TVARUMO ATASKAITOS INTERNETE: LYGINAMOJI ANALIZĖ

Xiaosong Zheng, Ziqi Wang, Yupei Zhai, Yi An, Jinggu Zhang

SANTRAUKA

Šiame darbe siekiama įvertinti ir, pasitelkus informaciją iš interneto, palyginti Kinijos universitetų tvarumo ataskaitų (SR) teikimo praktiką septyniuose Kinijos regionuose. Siekiant įvertinti ir palyginti Kinijos universitetų SR, naudojama integruota sistema. Duomenų analizei pasitelkta turinio analizė, kurioje pabrėžiamas lyginamasis požiūris. Nustatyta, kad visi atrinkti universitetai septyniuose regionuose savo oficialiose interneto svetainėse pateikia daug su tvarumu susijusios informacijos, tačiau nė vienas iš jų neskelbia detalių tvarumo ataskaitų. Stebėtina, tačiau rezultatai rodo, kad atrinkti Pietų Kinijos universitetai, nors ir turi mažiausią vidutinį reitingą, pasižymi geresniais rezultatais nei kitų šešių regionų universitetai. Toliau aptariami ir paaiškinami SR skirtumai. Siūloma, kad pagrindinį vaidmenį Kinijos universitetų SR atliktų vyriausybė. Aplinkosaugos aspektas yra labai svarbus, tad reikėtų skatinti tvarų miesto aplinkos vystymąsi.

REIKŠMINIAI ŽODŽIAI: tvarumas, ataskaita, internetas, universitetas, Kinija.

Appendix

Table 1A. SR performance of Chinese universities on general characteristics

Dimensions	Northeast	North	East	South	Central	Northwest	Southwest
If there is a web map indicating sustainability-related information is available	0	0	1	2	0	1	2
If there is a specific section for sustainability reporting on the website	0	0	0	1	0	0	1
If there is a specific sustainability office/committee or alike	8	7	7	9	6	7	7
If there is a statement of vision and strategy for sustainability	7	7	5.5	8	7	5	8
If there is a regular stand-alone sustainability report online	0	0	0	0	0	0	0
If the online sustainability report has been assured or audited	7	5	7	8	5	7	6.5
Identification of stakeholders' Particular emails for the contact of sustainability issues	6	3.5	6	4.5	5	7.5	7
Online forums for communication of sustainability issues	7	4	6	3	7	8	5
Social media particularly for sustainability information	5	6	4	7	6	7	6
Online surveys particularly for sustainability	0	0	1	0	1.5	0	0
Score	40	32.5	37.5	42.5	37.5	42.5	42.5

Source: own calculations.

Table 2A. SR performance of Chinese universities on specific disclosures

Dimensions/ / Items	Northeast	North	East	South	Central	Northwest	Southwest
Economic							
1.University-enterprise cooperation	10.5	12	12.5	12.5	13.75	13.5	12.5
2.International exchange and cooperation	11	14	13.75	13	12.5	12	11.5
3.Economic performance	6.5	10	10.5	11.5	7.5	11.5	9.5
4.Contribution to the local economy	7	10.5	9	9.5	2.5	8.5	11.5
5.Indirect economic impacts	6.5	11	6.5	7.5	7.5	10.5	9.5
6.Donation of funds	8.5	12.5	14	8.5	11.25	9	10.5
Score	50	70	66.25	62.5	55	65	65
Environmental							
1.Environmental infrastructure	13.5	14	14	11	11	11.5	10.5
2.Concept of ecological civilization	13	10.5	11	14.5	10	12.5	13.5
3.Garbage classification	5	9	5	9.5	11.5	8.5	11
4.Discharge up to standard	4	11.5	10	10.5	11	8.75	9.5
5.Energy saving measures	11.5	11.5	12.5	11.5	9.5	10	11.5
6.A smoke-free campus	12	9	5	9	10	11	10
7.Greening	10	12.5	13.75	12	11.5	11.25	13
8.Health prevention and control mechanism	5	11.5	10	13	10	10	11
9.Food	9.5	2	15	13.5	6	9	11.25
10.Waste recovery and utilization	5.5	11	7.5	12	10.5	10	12
11.Energy conservation emissions reduction	11.5	8.5	10	11.5	9	11.5	12.5
12.Environmental investment	9.5	6.5	3.75	10.75	5	11	11
Score	110	117.5	117.5	138.75	115	125	136.75
Teaching							
1.Education and schooling conditions	17.5	20	20	20	20	20	20
2.Discipline construction	14.5	20	20	20	17.5	17.5	17.5
3.Sustainability related Policies/incentives	10.5	2.5	2.5	7	6.5	4.5	7.5
4.Sustainability related degree programs	10	10	0	3	1	5.5	0
5.Sustainability related courses	9.5	11.5	10.5	12.5	10	12.5	10
6.Sustainability related scholarships	3	2.5	1	2.5	5	5	2.5
7.Sustainable literacy assessment	0	0	1	0	0	2.5	0
8.Non-curriculum education	5	9.5	8	13.5	10	10	7.5
9.Administrative support	2.5	9	7	9	10	7.5	5
Score	72.5	85	70	87.5	80	85	70
Social							
1.Social assistance	9.5	13.75	13.5	5	10	7.5	7.5
2.Volunteer service	14.5	11.25	12	11.25	10	10	10
3.Community activities and services	15	10	12.5	10.5	10	5	10
4.Internship	12	12.5	13.75	12	11.25	11.25	10

Regular Paper

5.National policy	6.5	10	13	9	11	11.5	12.5
6.Procurement bidding	4	13.75	14.5	10	9.5	10	10
7.Infrastructure utilization	7.5	9	11	11	8	9	10.5
8.Social service participation	15	10	10.5	9	7.5	10	10
9.Comply with relevant legislation	9.25	11	10.5	10	10.5	9.5	9.5
10.Appeal mechanism for social impact	11	3	2	4	4	7.5	12
11.Online teaching during the outbreak	15	25	15.5	19	24.5	15	23
12.A series of epidemic publicity activities	12	27	15	20.5	25	15	10
Score	131.25	156.25	143.75	131.25	141.25	121.25	135
Human rights							
1.Employee safety protection	11	11	12.5	10	11	10	12
2.Students' rights protection	9	10.5	12	11	9.5	8	10.5
3.The rights and interest's protection	11	10	11.5	9	10	10	8
4.Recruitment	10.5	15	13.5	12.5	12	11	11.5
5.Safety and health service	12.5	9	12	10	11.5	11.5	9.5
6.Training and education	11	11.5	11.5	9	9.5	10	11.5
7.Diversity and equal opportunity	8	10	8	10	11	9.5	13
8.Equal pay for equal work	7	3	0	10.5	8.5	10	4
Score	80	80	81	82	83	80	80
Research							
1.Sustainability related policies/incentives	8	5	0	2.5	5	2.5	2.5
2.Sustainability related centers/labs	4.5	12.5	15	15	12.5	7.5	12.5
3.Sustainability related programs/projects	9	10	12.5	15	7.5	15	20
4.Sustainability related grants/funding	12.5	5	0	12.5	5	12.5	17.5
5.Sustainability related publications	7.5	13.75	7.5	12.5	2.5	12.5	12.5
6.Sustainability related research support	8.5	10	5	10	2.5	10	12.5
Score	50	56.25	40	67.5	35	60	77.5
Total	493.75	565	518.5	569.5	509.25	536.25	564.25