Executive DBA, Université Paris Dauphine – PSL

PSL·巴黎九大高级工商管理博士学位项目

Corporate Social Responsibility and Sustainable Development

---Empirical Research Based on five Small and Medium-Sized Private Pharmaceutical Enterprises in the region of Zhanjiang

（Thesis submitted for the degree of Executive Doctorate in Business Administration）

Cohort: 2019

Candidate: GUAN Dong

Supervisor: GAN Xiaoqing

June , 2023

CONFIDENTIALITY AND AUTHORISATION

There is a need to protect the confidentiality of information provided by the interviewees and their organizations. For this reason, the data and other material included in the thesis have been presented in such a way as to protect the interests of the participants. This thesis has been accepted as confidential, and will be handled according to the Université Paris Dauphine - PSL' confidentiality policy.

Furthermore, the writer fully understands the relevant policy of Université Paris Dauphine - PSL, regarding to the reservation and usage of the dissertation, namely that the University has the right to retain copies of the thesis, allow the thesis to be accessed and borrowed; The university may publish all or part of the contents of the thesis, and can save the thesis by photocopying, microprinting or other means.

Signature：_____Signature of Supervisor：_____Date：_____

ABSTRACT

Corporate social responsibility (CSR) has long received attention from management theorists and practitioners, and many academic studies have shown that CSR is closely related to corporate sustainable development. This study focuses on the relationship between CSR and sustainable development in small and medium-sized private pharmaceutical enterprises (SMPPE) in China. It is the original aim of this study to explore the specific connotations of CSR and sustainable development of SMPPE in the Chinese context. What are the specific difficulties in the sustainable development of SMPPE? What is the relationship between CSR and sustainable development in SMPPE? This study provides theoretical guidance for business management practice, while further enriching and improving theoretical research on CSR and sustainable development.

This paper adopts a mixed research approach, i.e. a combination of qualitative and quantitative research, and takes five SMPPEs of a certain scale in the Zhanjiang region of Guangdong Province as the research subjects, all of which have undergone the experience of restructuring from former state-owned enterprises to private enterprises, while sharing certain common characteristics. This study mainly carries out the following work: firstly, it introduces the history of reform and development of SMPPE in China, and explains the business survival environment of SMPPE in the context of the industrial and economic development characteristics of the Zhanjiang region; secondly, it systematically compares the theoretical literature on CSR and sustainable development, defines relevant concepts and connotations according to the research direction and objectives of this paper, and clarifies the dimensions of core variables composition and influencing factors; thirdly, on the basis of literature review and field research, an exploratory qualitative study was carried out, and this paper applied the rooting theory and adopted a three-level coding research method through Nvivo software to extract relevant conceptual dimensions and construct relevant conceptual dimensions and theoretical models; fourthly, the correlation between CSR and corporate sustainable development was studied, and through Statistical Package for the Social Sciences (SPSS) software. This paper did a series of descriptive analysis, correlation analysis and multiple linear regression analysis to argue for a significant correlation between the two.

The main findings of this paper are divided into two main parts, consisting of exploratory qualitative research findings in the first part and empirical quantitative research findings in

the second part. The qualitative study found that for SMPPE, CSR mainly implies product quality and safety, human resource care, environmental protection, social charity and assistance, honest management and the spirit of chiseling, safeguarding shareholders' interests and passing on the culture of traditional Chinese medicine. The key factors for the sustainable development of SMPPE are technological innovation of products, excellent human resources, qualified environmental protection, reasonable and stable supply of raw materials, correct marketing, advanced production facilities and healthy financial status. The first three main influencing factors for both are product, human resources and environmental protection, but each has a different focus, and both have different motivations and outcome impacts. For CSR, the motivation is to maintain the company's social reputation and prestige, and the impact is to build a good corporate brand. For corporate sustainability, the motivation is due to fierce industry competition and strict government regulatory pressure, and the outcome impact is to build a good family and corporate culture for mutual development.

In the empirical study, based on prior qualitative research and theoretical literature, CSR was constructed into four dimensions: product quality, human resources, environmental protection and social and charitable responsibility, and corporate sustainability was defined as the development dilemma faced by SMPPE at this stage, so there was only one total dimension. The empirical study shows that male workers are significantly more aware of environmental protection, social responsibility and sustainable development than female workers; younger workers (18-25 years old) and older workers (46-55 years old) clearly have higher mean total scores on each construct than middle-aged workers (26-35 years old and 36-45 years old), and there is a statistically significant difference in this difference; there is a statistically significant correlation; corporate sustainability is mainly influenced by social and charitable responsibility, human resources and product quality, i.e. environmental protection is not a significant influencing factor. This contradicts previous qualitative research and previous theories that for SMPPE, environmental protection is only an excuse to increase the legitimacy of the company, and not a core dimension that the company focuses on.

Key Words: Transformation of state-owned enterprises, small and medium-sized private pharmaceutical enterprises, corporate social responsibility, sustainable development, family enterprise culture

ACKNOWLEDGEMENT

Late at night, looking out of the window, the lights were sporadic, and I exhaled deeply - the thesis had been done!

First of all, I would like to thank my supervisor, the esteemed Professor Gan Xiaoqing. Professor Gan is academically rigorous, committed to excellence, humble, wise and open-minded, and I am very lucky to have studied under him. I would also like to express my sincere thanks to Sébastien DAMART, Vice-Rector of PSL-Paris IX, and Nicolas BERLAND, Vice-Rector of PSL-Paris IX, for their attention and support to ensure the smooth implementation of the project. I would also like to express my heartfelt thanks to Dean Qin Rongsheng of North China University, General Manager Zhang Yingjun and teacher Yang Yindi of Tsinghua University's Zhuoer Education Group for their careful organisation and arrangement of our study courses during these three years of EDBA study, and for providing us with The study guidance.

During the three years of study, exploration and writing, I was able to apply the knowledge imparted by the teachers in the classes and the experience gained from the exchange of learning among my classmates to the management of the company, broadening my horizons and enhancing my thinking on business management. Whenever I felt confused, anxious or in pain during the learning and writing process, I remembered that the two professors often quoted ancient poems to encourage us during their lectures: "When the sky is about to descend on a man, he must first suffer his mind, labour his muscles and bones, starve his body, empty his body and gain what he cannot (Mencius). " "When I look for him, I see him at the end of the light (Xin Qiji)." After suffering, one is bound to reap the joy of enlightenment.

My heartfelt thanks to Professor Yang Baiyin of Tsinghua University and Professor Jing Runtian of Shanghai Jiaotong University for their exchanges and studies with us; to Dr Zhou Linlin of IAE of the University of Poitiers in France for his help during my studies; and to my fellow students of the EDBA of Paris IX/Tsinghua University/North China University for their help during the three years of study and exchange. May the friendship of my classmates last forever! I wish the EDBA of Paris IX the best of luck!

I am grateful to my family for their unfailing support and selfless dedication, from applying for the EDBA programme at Paris IX to studying and writing. My family's encouragement is my motivation to explore knowledge and keep moving forward!

Table of CONTENT

ABSTRACT I

ACKNOWLEDGEMENT III

Table of CONTENT IV

Table of TABLES VII

Table of FIGURES X

Acronyms XI

Chapter 1 Introduction 1

1.1 Background and significance of the study 2

1.2 Research aims and questions 5

1.3 Significance of the study 6

1.4 Research content and methodology 9

1.4.1 Research content 9

1.4.2 Research methods 10

1.5 Research framework 11

1.6 Structure of the thesis 12

Chapter 2 Literature Review 14

2.1 Private pharmaceutical companies 14

2.1.1 Economic development of the Zhanjiang region 14

2.1.2 China's pharmaceuticals consumer market 24

2.1.3 History of private pharmaceutical companies 32

2.1.4 Private pharmaceutical companies in Zhanjiang 39

2.1.5 The origins of Chinese medicine and its development 45

2.2 Related studies on corporate social responsibility 52

2.2.1 The concept and meaning of CSR 53

2.2.2 Influencing factors and development trends of corporate social responsibility 73

2.3 Research related to corporate sustainability 76

2.3.1 The introduction and development of corporate sustainability thinking 77

2.3.2 Research on sustainable development of enterprises in foreign theoretical circles 78

2.3.3 Domestic research on corporate sustainable development 82

2.4 Summary of the literature review and theoretical gaps 89

Chapter 3 Qualitative Exploratory Research Based on Case Analysis 92

3.1 Qualitative research design 92

3.1.1 Research methods 92
3.1.2 Case selection 93
3.1.3 Characteristics of case samples 93
3.1.4 Data collection methods 98
3.2 Data analysis 100
3.2.1 NVIVO software coding 101
3.2.2 Summary of interview data 103
3.3 Coding analysis 105
3.3.1 Corporate social responsibility coding 105
3.3.2 Enterprise sustainable development coding 119
3.4 Case analysis 137
3.4.1 JM Pharmaceutical Co., Ltd. 137
3.4.2 TD Pharmaceutical Co., Ltd. 146
3.4.3 NG Pharmaceutical Co., Ltd. 150
3.4.4 HC Pharmaceutical Co., Ltd. 157
3.4.5 MH Pharmaceutical Co., Ltd. 162
3.5 Summary of qualitative research results 167
Chapter 4 Model Construction, Empirical and quantitative research 173
4.2 Model construction 176
4.3 Research design 178
4.3.1 Mixed methods research 178
4.3.2 Measurement of related constructs and sample design 181
4.3.3 Sample characteristics 186
4.4 Design of questionnaire 187
4.4.1 Design principles for questionnaire 187
4.4.2 Design process of the questionnaire 188
4.5 Empirical Data Acquisition and Conclusion Analysis 198
4.5.1 Data of demographic variables 198
4.5.2 Sequence of relevant importance 201
4.6 Description and analysis of correlation 203
4.7 Correlation analysis and regression analysis 209
4.7.1 Correlation analysis 209
4.7.2 Regression analysis 211
4.8 Conclusions of empirical research 214
Chapter 5 Research Conclusions and Prospects 217
5.1 Main conclusions 217

5.2 Innovations of this study 219
5.3 Management contribution 220
5.3.1 Research summary and contribution of CSR 221
5.3.2 Summary of research and contributions to CSD 228
5.4 Study limitations and future prospects 233
5.4.1 Study limitations 233
5.4.2 Future prospects 234
5.5 Research Summary 235
Appendix A Semi-open-ended interview outline for qualitative research 238
Appendix B Empirical Questionnaire 240
Appendix C Detailed data for SPSS statistical analysis 243
BIBLIOGRAPHY 262
DECLARATION 278
RESUME 279

Table of TABLES

Table 2- 1 Main indicators of economic and social development in Zhanjiang City in recent years..... 16
Table 2- 2 Indicators of labour force employment in Zhanjiang..... 18
Table 2- 3 Growth rate of industrial value added above scale in previous years..... 19
Table 2- 4 The main economic indicators of industrial enterprises above the scale in Zhanjiang City..... 20
Table 2- 5 Total industrial output value above Zhanjiang city scale..... 22
Table 2- 6 Zhanjiang's annual output of pharmaceutical products..... 23
Table 2- 7 Pharmaceutical industry sales in 2020 (unit, person,100 million yuan) Unit: billion yuan..... 32
Table 2- 8 Criteria for classifying the size of industrial enterprises..... 38
Table 2- 9 Definition of Managerial Capitalism..... 54
Table 2- 10 Definition of CSR in foreign conturies..... 59
Table 2- 11 Definition of CSR in domestic academia..... 65
Table 2- 12 An Empirical Study on Corporate Social Responsibility and Corporate Financial Performance..... 75
Table 2- 13 Summary of Corporate Sustainability Definitions..... 86
Table 2- 14 Research on the index system of enterprise sustainable development..... 89
Table 3- 1 Comparison of Comprehensive Information by Companies..... 98
Table 3- 2 Details of Interview Samples..... 105
Table 4- 1 Mixed method strategy options for research..... 179
Table 4- 2 Explanation of Product Quality and Safety Connotation of Corporate Social Responsibility..... 184
Table 4- 3 Interpretation of Corporate Sustainable Development..... 186
Table 4- 4 Statistics of High Score Group and Low Score Group in Product Quality (PQ)..... 190
Table 4- 5 Independent Sample T-test for Questions in Product Quality..... 192
Table 4- 6 Correlation between the Question and Score of Environmental Protection (EP)..... 193
Table 4- 7 Reliability Statistics of Questions in Human Resources (HR)..... 194
Table 4- 8 Principal Component Analysis of Sustainable Development..... 195
Table 4- 9 Component Matrix of Sustainable Development (SD)..... 196
Table 4- 10 Analysis Abstract of Questions in the Questionnaire for Corporate Social Responsibility and Sustainable Development..... 198
Table 4- 11 Employee Age..... 199
Table 4- 12 Education Background of Employees..... 199
Table 4- 13 Cross Figure of Gender and Position of Employees..... 200
Table 4- 14 Weights of Corporate Stakeholders..... 201

Table 4- 15 External Influence Factors of Corporate Development 202
Table 4- 16 Influence Factors of Corporate Internal Management 202
Table 4- 17 Gender Performance in Construct Measurement 203
Table 4- 18 Independent Sample Test of Gender in Constructs 204
Table 4- 19 Performances of Positions on Construct Measurement 205
Table 4- 20 Independent Sample Test of Positions in Each Construct 206
Table 4- 21 Performances of Ages in Construct Measurement 207
Table 4- 22 Single-factor Test of Ages in Each Construct 208
Table 4- 23 Judgment Scales of Correlation Coefficient 210
Table 4- 24 Product-moment Correlation between Constructs 210
Table 4- 25 Multiple Linear Regression Model 212
Table 4- 26 ANOVA of Regression Equation 213
Table 4- 27 Regression Coefficient and Significance Test 213

Table C- 1 Statistics of High Score Group and Low Score Group in Product Quality (PQ) 243
Table C- 2 Independent Sample T-test for Questions in Product Quality 244
Table C- 3 Statistics of High Score Group and Low Score Group in Environmental protection (EP) 245
Table C- 4 Independent Sample T-test for Questions in Environmental protection (EP) 246
Table C- 5 Statistics of High Score Group and Low Score Group in Human Resources (HR) 246
Table C- 6 Independent Sample T-test for Questions in Human Resources (HR) 247
Table C- 7 Statistics of High Score Group and Low Score Group in Social responsibility (SR) 248
Table C- 8 Independent Sample T-test for Questions in Social responsibility (SR) 248
Table C- 9 Statistics of High Score Group and Low Score Group in Sustainable development (SD) 249
Table C- 10 Independent Sample T-test for Questions in Sustainable development (SD) 251
Table C- 11 Correlation between the Question and Score of Product Quality (PQ) 252
Table C- 12 Correlation between the Question and Score of Environmental Protection (EP) 253
Table C- 13 Correlation between the Question and Score of Humain Resource (HR) 254
Table C- 14 Correlation between the Question and Score of Social Responsibility (SR) 254
Table C- 15 Correlation between the Question and Score of Sustainable Development (SD) 256
Table C- 16 KMO and Bartlett's Test of Product Quality 256
Table C- 17 Principal Component Analysis of Product Quality 256
Table C- 18 KMO and Bartlett's Test of Environmental Protection 257
Table C- 19 Principal Component Analysis of Environmental Protection 257
Table C- 20 KMO and Bartlett's Test of Humain ressources 257
Table C- 21 Principal Component Analysis of Humain ressources 258
Table C- 22 KMO and Bartlett's Test of Social responsibility 258
Table C- 23 Principal Component Analysis of Social responsibility 258

Table C- 24 KMO and Bartlett's Test of Sustainable development 258
Table C- 25 Principal Component Analysis of Sustainable development 259
Table C- 26 Analysis of the differences in the means of academic qualifications across constructs 260
Table C- 27 One-way ANOVA test for differences in means across constructs for academic qualifications 260
Table C- 28 Correlation between each construct 261

Table of FIGURES

Figure 1- 1 Research Technology Pathway 12
Figure 2- 1 Zhanjiang's industrial structure over the years 17
Figure 2- 2 Pharmaceutical distribution industry chain 29
Figure 2- 3 China Pharmaceutical Market Size and Growth Rate, 2016-2025 30
Figure 2- 4 China Pharmaceutical Market Segmentation Share, 2016-2020 31
Figure 2- 5 Number of companies in the pharmaceutical industry nationwide 34
Figure 2- 6 China Chinese Medicine Industry Market Size (by Revenue from Main Business), Forecast 2019-2023 52
Figure 2- 7 Three-Dimensional Conceptual Model of CSR 61
Figure 2- 8 Carroll's CSR pyramid 61
Figure 2- 9 CSR Model for Pharmaceutical Enterprises 72
Figure 2- 10 Sustainable development stage model 81
Figure 3- 1 Details of CSR Coding 105
Figure 3- 2 Connotations and Dimensions of CSR 106
Figure 3- 3 Details of Enterprise Sustainable Development Coding 119
Figure 3- 4 Connotation and Dimension of SD 120
Figure 3- 5 JM's Fulfillment of Corporate Social Responsibility 145
Figure 3- 6 TD's Fulfillment of Corporate Social Responsibility 149
Figure 3- 7 Enterprise Strategic Development Plan of NG 152
Figure 3- 8 NG's Fulfillment of Corporate Social Responsibility 155
Figure 3- 9 HC's Fulfillment of Corporate Social Responsibility 161
Figure 3- 10 MH's Fulfillment of Corporate Social Responsibility 166
Figure 4- 1 Research Theoretical Model 177
Figure 4- 2 Working Age of Employees 200
Figure 5- 1 The mechanism for managing the social responsibility of pharmaceutical companies. 224

Acronyms

A

active pharmaceutical ingredients (API), 45

C

corporate financial performance (CFP), 77
corporate governance index (CGI), 92
Corporate social responsibility (CSR), 55
corporate sustainable development (CSD), 81

D

Deoxyribonucleic acid (DNA) (DNA), 134

E

Environmental Protection (EP), VIII

G

Good Manufacturing Practice (GMP), 38
Good Supply Practice (GSP), 38
Gross Domestic Product (GDP), 18

H

Human Resources (HR), VIII

I

Intellectual Property Rights (IPRs), 101

O

over the counter drug (OTC), 38

P

Product Quality (PQ), VIII

R

Receptor X (RX), 28
research and development (R&D), 5

S

small and medium-sized enterprises (SMEs), 4
small and medium-sized private pharmaceutical enterprises (SMPPE), I
Social responsibility (SR), IX
Statistical Package for the Social Sciences (SPSS), I
Sustainable Development (SD), VIII

T

Traditional Chinese Medicine (TCM), 74