YAŞAR UNIVERSITY

GRADUATE SCHOOL OF SOCIAL SCIENCES

DEPARTMENT OF BUSINESS ADMINISTRATION

DOCTOR OF PHILOSOPHY THESIS

UNFOLDING STRATEGIC DRIVERS OF CORPORATE SUSTAINABILITY PRACTICES

Gönenç DALGIÇ TURHAN

THESIS ADVISOR: ASSIST. PROF. DR. R. SERKAN ALBAYRAK

İZMİR 2017

YAŞAR UNIVERSITY

GRADUATE SCHOOL OF SOCIAL SCIENCES

DEPARTMENT OF BUSINESS ADMINISTRATION

DOCTOR OF PHILOSOPHY THESIS

UNFOLDING STRATEGIC DRIVERS OF CORPORATE SUSTAINABILITY PRACTICES

Gönenç DALGIÇ TURHAN

THESIS ADVISOR: ASSIST. PROF. DR. R. SERKAN ALBAYRAK

İZMİR 2017

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the PhD in Business Administration degree.

18.08.2017

Assist. Prof. Dr. R. Serkan ALBAYRAK (Supervisor)

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality as a thesis for the PhD in Business Administration degree.

18.08.2017

Assoc. Prof. Dr. Duygu TÜRKER ÖZMEN

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality as a thesis for the PhD in Business Administration degree.

18.08.2017

Prof. Dr. Ümit ATABEK

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality as a thesis for the PhD in Business Administration degree.

18.08.2017

Assist. Prof. Dr. Aysu GÖÇER

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality as a thesis for the PhD in Business Administration degree.

18.08.2017

Assoc. Prof. Dr. Güler TOZKOPARAN

Assoc. Prof. Dr. Çağrı BULUT

Director of the Graduate School of Social Sciences

ABSTRACT

UNFOLDING STRATEGIC DRIVERS OF CORPORATE SUSTAINABILITY PRACTICES

Gönenç DALGIÇ TURHAN

Doctor of Philosophy in Department of Business Administration

Advisor: Assist. Prof. Dr. R. Serkan ALBAYRAK

August, 2017

Main drivers of corporate sustainability practices have been investigated by recent studies in corporate sustainability literature. However, the composition of the components of each of these comprehensive drivers has not been studied to date. This study discusses the composition of components of previously stated corporate sustainability drivers in terms of corporate sustainability practices. In addition, the mentioned composition is investigated in regard to past experiences, present implementations, and future expectations and foresights. Finally, whether the demographic characteristics of the organizations generate differences on the composition or not is also studied.

For these purposes, a completely new measurement instrument was developed to collect data. Collected data through this scale was tested by using correspondence analysis method via a new software package developed for the first time in R software program as there was absolutely no software capable of performing correspondence analysis to compositional data until now.

Findings provide support to research hypotheses with one exception. Particularly, the composition of the components of sustainability drivers has been identified. Significant differences in compositions have been explored in terms of the period that sustainability implementations first start, the current situation and the future expectations. Further, it is also determined that the demographic characteristics generate variations on the compositions.

This research has inherent value and theoretical contribution in terms of new developments in regard to methodology and in addressing a topic that has not been studied previously in the field of corporate sustainability. It also contributes to practitioners in regard to benchmarking and future planning through the analyses provided.

Key Words: Sustainable Development, Corporate Sustainability, Corporate Strategy, Composition of Corporate Sustainability Drivers

ÖZ

KURUMSAL SÜRDÜRÜLEBİLİRLİK UYGULAMALARININ STRATEJİK ETMENLERİNİN BELİRLENMESİ

Gönenç DALGIÇ TURHAN

İşletme Doktora Programı (İng.)

Danışman: Yrd. Doç. Dr. R. Serkan ALBAYRAK

Ağustos, 2017

Kurumsal sürdürülebilirlik literatüründe kurumları, kurumsal sürdürülebilirlik uygulamalarına yönelten temel etmenler daha önce incelenmiştir. Ancak her biri son derece kapsamlı olan bu etmenlerin alt bileşenlerinin kompozisyonları bugüne kadar incelenmemiştir. Bu çalışma, daha önce literatürde belirtilen kurumsal sürdürülebilirlik etmenlerinin alt bileşenlerini, kurumsal sürdürülebilirlik uygulamalarındaki kompozisyonu bakımından ele almaktadır. Ayrıca sözü edilen kompozisyonu, önceki deneyimler, mevcut uygulamalar ile gelecek beklenti ve öngörüleri bakımından incelemektedir. Son olarak kurumların sahip olduğu demografik özelliklerin, bu kompozisyon üzerinde fark yaratıp yaratmadığı araştırılmaktadır.

Bu amaçlarla, veri toplamak için tamamen yeni bir ölçme aracı geliştirilmiştir. Bu çalışma öncesinde, bütüne tamamlayan veri ile karşılaştırmalı etki analizi yapabilen herhangi bir yazılım bulunmadığı için, sözü edilen ölçek aracılığı ile toplanan veriler, karşılaştırmalı etki analizi yöntemiyle, R yazılımında ilk defa geliştirilen bir yazılım paketi kullanılarak test edilmiştir.

Elde edilen bulgular, biri haricinde, araştırma hipotezlerini desteklemiştir. Ayrıntılı olarak, sürdürülebilirlik etmenlerinin kompozisyonları belirlenmiştir. Sürdürülebilirlik çalışmalarının ilk başladığı dönem ile günümüzdeki durum ve gelecek beklentileri bakımından sürdürülebilirlik etmenlerinin kompozisyonları arasında anlamlı farklılıklar bulunmuştur. Ayrıca demografik özelliklerin de kompozisyonlar üzerinde farklılıklara neden olduğu saptanmıştır.

Söz konusu araştırma, yöntem konusunda geliştirdiği yenilikler ve kurumsal sürdürülebilirlik alanında daha önce çalışılmamış olan bir konuyu ele alması bakımından özgün değer taşımakta ve teorik katkıda bulunmaktadır. Ayrıca sunduğu analizler ile de uygulayıcılara, karşılaştırmalı değerlendirmeler ve gelecek planlaması yapma bakımından katkı sağlamaktadır.

Anahtar Kelimeler: Sürdürülebilir Kalkınma, Kurumsal Sürdürülebilirlik, Kurumsal Strateji, Kurumsal Sürdürülebilirlik Etmenlerinin Kompozisyonu

ACKNOWLEDGEMENTS

I would like express sincere appreciation and thanks to my supervisor Assist. Prof. Dr. R. Serkan ALBAYRAK for his wisdom, mentorship, encouragement and guidance for my doctorate thesis. I would also like to thank to Assoc. Prof. Dr. Duygu TÜRKER ÖZMEN and to Assoc. Prof. Dr. Ceren ALTUNTAŞ VURAL, who are in my dissertation committee, for sharing their valuable thoughts and experiences with me and contributing to my academic progress.

I would like to give thanks to all academic and administrative staff of Yasar University Graduate School of Social Sciences and Department of Business Administration for having given me an opportunity, support and help throughout entire PhD program.

I would like to express deep gratitude to my parents, my brother and all other members of my family for their faith in me not only throughout my academic studies but also at every stage of my life. I am also grateful to my wonderful friends for their support.

I would like to give special thanks to my dear husband, without whom my life would have been half empty and I would not have kept going on my thesis, for his understanding, encouragement and patience during my long and stressful studies.

Gönenç DALGIÇ TURHAN

İzmir, 2017

TEXT OF OATH

I declare and honestly confirm that my study, titled “Unfolding Strategic Drivers of Corporate Sustainability Practices” and presented as a Doctor of Philosophy Thesis, has been written without applying to any assistance inconsistent with scientific ethics and traditions, that all sources from which I have benefited are listed in the bibliography, and that I have benefited from these sources by means of making references.



Gönenç DALGIÇ TURHAN

TABLE OF CONTENTS

ABSTRACT ..... **III**

ÖZ ..... **VI**

ACKNOWLEDGEMENTS ..... **VIII**

TEXT OF OATH ..... **IX**

TABLE OF CONTENTS ..... **X**

LIST OF TABLES ..... **XIV**

LIST OF FIGURES ..... **XV**

LIST OF ABBREVIATIONS ..... **XIX**

1. INTRODUCTION **1**

2. CHAPTER: FROM SUSTAINABLE DEVELOPMENT TO CORPORATE SUSTAINABILITY **3**

2.1. Concept of Sustainable Development 4

2.2. Concept of Corporate Sustainability 7

2.2.1. Dimensions of Corporate Sustainability 15

2.2.2. Concepts and Theories Relevant With Corporate Sustainability 17

2.2.2.1. Economic and Social Transformation 18

2.2.2.2. Capital Theory 20

2.2.2.3. Resource-Based View 21

2.2.2.4. Stakeholder Theory 22

2.2.2.5. Institutional Theory 25

2.2.3. Measurement of Corporate Sustainability Performance 26

2.2.3.1. Ground of Measuring Corporate Sustainability Performance 27

2.2.3.2. Sustainability Reporting 29

2.2.3.3. Guidelines for Corporate Sustainability Reporting 31

2.2.3.4. Assessment Methods of Corporate Sustainability Performance 33

3. CHAPTER: ROLE OF CORPORATE SUSTAINABILITY ON STRATEGIC ISSUES **36**

3.1. Concept of Strategy and Strategic Management 36
3.2. Historical Review of Strategic Management 39
3.2.1. Period of Strategic Planning (1960-1980) 40
3.2.2. Period of Competition Strategies (1980-1990) 41
3.2.2.1. Diamond Model 42
3.2.2.2. Five Forces 43
3.2.2.3. Generic Strategies 44
3.2.3. Period of Competence Based Strategies (After 1990- Until Today).. 46
3.3. Association Between Corporate Sustainability and Strategic Outcomes48
3.3.1. Corporate Sustainability and Business Ethics 49
3.3.2. The Impact Corporate Sustainability Practices on Financial Performance 51
4. CHAPTER: DRIVERS OF CORPORATE SUSTAINABILITY PRACTICES AND REPORTING 59
4.1. Value Creation 62
4.2. Corporate Reputation 66
4.3. Alignment with Business Goals 69
4.4. Regulations 70
4.5. Managing the Risks 71
4.6. Corporate Prioritization 73
4.7. Cost Cutting 74
4.8. Corporate Communication 76
5. CHAPTER: METHODOLOGY 79
5.1. Compositional Data 79
5.2. Correspondence Analysis 82
5.3. Measurement Instrument 88
5.4. Sample Selection 94
5.5. Data Collection 95
6. CHAPTER: DATA ANALYSES AND FINDINGS 97
6.1. Basic Sampling Characteristics and Demographic Data 97
6.2. Findings for Value Creation 99
6.2.1. General Characteristics of Past - Present – Future Assessments 100
6.2.2. Assessments of Reporting vs. Not Reporting Companies 102
6.2.3. Assessments of Manufacturing vs Service Sector 106
6.2.4. Assessments of National vs. Multinational Companies 109
6.2.5. Assessments Related to Business Volume 112

6.3. Findings for Corporate Reputation 116
6.3.1. General Characteristics of Past - Present – Future Assessments 116
6.3.2. Assessments of Reporting vs. Not Reporting Companies 118
6.3.3. Assessments of Manufacturing vs. Service Sector 122
6.3.4. Assessments of National – Multinational Companies 125
6.3.5. Assessments Related to Business Volume 129
6.4. Findings for Business Goals 132
6.4.1. General Characteristics of Past - Present – Future Assessments 132
6.4.1. Assessments of Reporting vs. Not Reporting Companies 134
6.4.2. Assessments of Manufacturing vs. Service Sector 138
6.4.3. Assessments of National – Multinational Companies 141
6.4.4. Assessments Related to Business Volume 145
6.5. Findings for Regulations 149
6.5.1. General Characteristics of Past - Present – Future Assessments 149
6.5.2. Assessments of Reporting vs. Not Reporting Companies 151
6.5.3. Assessments of Manufacturing vs. Service Sector 155
6.5.1. Assessments of National vs. Multinational Companies 158
6.5.2. Assessments Related to Business Volume 162
6.6. Findings for Risk Management 165
6.6.1. General Characteristics of Past - Present – Future Assessments 165
6.6.2. Assessments of Reporting vs. Not Reporting Companies 167
6.6.3. Assessments of Manufacturing vs. Service Sector 171
6.6.4. Assessments of National vs. Multinational Companies 175
6.6.5. Assessments Related to Business Volume 178
6.7. Findings for Organizational Priorities 182
6.7.1. General Characteristics of Past - Present – Future Assessments 182
6.7.1. Assessments of Reporting vs. Not Reporting Companies 184
6.7.2. Assessments of Manufacturing vs. Service Sector 187
6.7.3. Assessments of National vs. Multinational Companies 191
6.7.4. Assessments Related to Business Volume 194
6.8. Findings for Organizational Costs 198
6.8.1. General Characteristics of Past - Present – Future Assessments 198
6.8.2. Assessments of Reporting vs. Not Reporting Companies 200
6.8.3. Assessments of Manufacturing vs. Service Sector 204
6.8.4. Assessments of National vs. Multinational Companies 208
6.8.1. Assessments Related to Business Volume 211

6.9. Findings for Corporate Communication 214
6.9.1. General Characteristics of Past - Present – Future Assessments 214
6.9.2. Assessments of Reporting vs. Not Reporting Companies 216
6.9.3. Assessments of Manufacturing vs. Service Sector 220
6.9.4. Assessments of National vs. Multinational Companies 224
6.9.5. Assessments Related to Business Volume 228

CONCLUSIONS AND DISCUSSIONS 232

REFERENCES 244

APPENDIX 1: QUESTIONNAIRE FORM– ENGLISH VERSION 262

APPENDIX 2: QUESTIONNAIRE FORM – TURKISH VERSION 266

APPENDIX 3: R CODES FOR COMPOSITIONAL DATA 270

CURRICULUM VITAE 275

LIST OF TABLES

TABLE 1: Milestones of Sustainable Development 6
TABLE 2: Corporate Environmental Management Related Views 9
TABLE 3: Corporate Social Performance (CSP) Related Views 11
TABLE 4: Holistic Approaches on Corporate Sustainability 12
TABLE 5: Benefits of Sustainability Reporting / In Literature 30
TABLE 6: Benefits of Sustainability Reporting / GRI Classification 31
TABLE 7: Corporate Sustainability Indicators 34
TABLE 8: Studies Focused on The Relationship Between Environmentally Responsible Practices and Performance 52
TABLE 9: Studies Focused on The Relationship Between Socially Responsible Practices and Performance 54
TABLE 10: Studies Focused on The Relationship Between Corporate Sustainability Practices and Performance 56
TABLE 11: Ingredients of Compositional Data 79
TABLE 12: Covariance – VC4 Included 80
TABLE 13: Covariance – VC4 Not Included 81
TABLE 14: Age by Education Level Contingency Table 83
TABLE 15: Masses and Average Profiles 84
TABLE 16: Dimension Details 84
TABLE 17: Row Details 85
TABLE 18: Column Details 85
TABLE 19: Items and References 91
TABLE 20: General Company Information 97
TABLE 21: Demographic Characteristics 98
TABLE 22: Demographic Characteristics for Sustainability Reporting 99

LIST OF FIGURES

FIGURE 1: State, Business and Civil Society 8
FIGURE 2: Seven Sustainability Revolutions 14
FIGURE 3: Common Three-Ring View 16
FIGURE 4: Nested View 16
FIGURE 5: The Stakeholder Model 23
FIGURE 6: The Evolution of Corporate Reporting 28
FIGURE 7: Porter's Model of Effective Strategy Formulation 39
FIGURE 8: Determinants of National Competitive Advantage 43
FIGURE 9: Five Forces Model: Key Drivers 44
FIGURE 10: Resources As The Basis For Profitability 47
FIGURE 11: Primary Reasons for Corporate Sustainability 61
FIGURE 12: Value Chain Model 63
FIGURE 13: Negative Correlation 80
FIGURE 14: Symmetrical Biplot 86
FIGURE 15: Row Principle Biplot 87
FIGURE 16: Column Principle Biplot 87
FIGURE 17: Value Creation - Past 100
FIGURE 18: Value Creation - Present 101
FIGURE 19: Value Creation - Future 101
FIGURE 20: Reporting vs. Not Reporting Companies - Past 102
FIGURE 21: Reporting vs. Not Reporting Companies - Present 104
FIGURE 22: Reporting vs. Not Reporting Companies – Future 105
FIGURE 23: Manufacturing vs. Service sector - past 106
FIGURE 24: Manufacturing vs. Service Sector – Present 107
FIGURE 25: Manufacturing vs. Service Sector – Future 108
FIGURE 26: National vs. Multinational Companies – Past 110
FIGURE 27: National vs. Multinational Companies – Present 111
FIGURE 28: National vs. Multinational Companies - Future 112
FIGURE 29: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past 113
FIGURE 30: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present 114

FIGURE 31: Less than 1 billion TL. vs. 1 billion and Over TL. – Future 115
FIGURE 32: Corporate Reputation - Past 117
FIGURE 33: Corporate Reputation - Present 117
FIGURE 34: Corporate Reputation - Future 118
FIGURE 35: Reporting vs. Not Reporting Companies – Past 119
FIGURE 36: Reporting vs. Not Reporting Companies - Present 120
FIGURE 37: Reporting vs. Not Reporting Companies - Future 121
FIGURE 38: Manufacturing vs. Service Sector – Past 123
FIGURE 39: Manufacturing vs. Service Sector – Present 124
FIGURE 40: Manufacturing vs. Service Sector - Future 125
FIGURE 41: National vs. Multinational Companies – Past 126
FIGURE 42: National vs. Multinational Companies – Present 127
FIGURE 43: National vs. Multinational Companies – Future 128
FIGURE 44: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past 129
FIGURE 45: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present 131
FIGURE 46: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future 132
FIGURE 47: Business Goals – Past 133
FIGURE 48: Business Goals – Present 133
FIGURE 49: Business Goals – Future 134
FIGURE 50: Reporting vs. Not Reporting Companies – Past 135
FIGURE 51: Reporting vs. Not Reporting Companies – Present 136
FIGURE 52: Reporting vs. Not Reporting Companies – Future 137
FIGURE 53: Manufacturing vs. Service Sector – Past 138
FIGURE 54: Manufacturing vs. Service Sector – Present 139
FIGURE 55: Manufacturing vs. Service Sector – Future 141
FIGURE 56: National vs. Multinational Companies – Past 142
FIGURE 57: National vs. Multinational Companies – Present 143
FIGURE 58: National vs. Multinational Companies – Future 144
FIGURE 59: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past 145
FIGURE 60: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present 147
FIGURE 61: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future 148
FIGURE 62: Regulations – Past 149
FIGURE 63: Regulations – Present 150
FIGURE 64: Regulations – Future 151
FIGURE 65: Reporting vs. Not Reporting Companies - Past 152
FIGURE 66: Reporting vs. Not Reporting Companies – Present 153

FIGURE 67: Reporting vs. Not Reporting Companies – Future 154
FIGURE 68: Manufacturing vs. Service Sector – Past 155
FIGURE 69: Manufacturing vs. Service Sector – Present 156
FIGURE 70: Manufacturing vs. Service Sector - Future 158
FIGURE 71: National vs. Multinational Companies – Past 159
FIGURE 72: National vs. Multinational Companies – Present 160
FIGURE 73: National vs. Multinational Companies - Future 161
FIGURE 74: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past 162
FIGURE 75: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present 163
FIGURE 76: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future 165
FIGURE 77: Risk Management – Past 166
FIGURE 78: Risk Management – Present 166
FIGURE 79: Risk Management – Future 167
FIGURE 80: Reporting vs. Not Reporting Companies – Past 168
FIGURE 81: Reporting vs. Not Reporting Companies – Present 169
FIGURE 82: Reporting vs. Not Reporting Companies – Future 170
FIGURE 83: Manufacturing vs. Service Sector – Past 171
FIGURE 84: Manufacturing vs. Service Sector – Present 173
FIGURE 85: Manufacturing vs. Service Sector – Future 174
FIGURE 86: National vs. Multinational companies – Past 175
FIGURE 87: National vs. Multinational Companies – Present 176
FIGURE 88: National vs. Multinational Companies – Future 177
FIGURE 89: Less Than 1 billion TL. vs. 1 billion and Over TL.. – Past 179
FIGURE 90: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present 180
FIGURE 91: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future 181
FIGURE 92: Organizational Priorities – Past 182
FIGURE 93: Organizational Priorities – Present 183
FIGURE 94: Organizational Priorities – Future 183
FIGURE 95: Reporting vs. Not Reporting Companies – Past 184
FIGURE 96: Reporting vs. Not Reporting Companies - Present 186
FIGURE 97: Reporting vs. Not Reporting Companies – Future 187
FIGURE 98: Manufacturing vs. Service Sector - Past 188
FIGURE 99: Manufacturing vs. Service Sector - Present 189
FIGURE 100: Manufacturing vs. Service Sector – Future 190
FIGURE 101: National vs. Multinational Companies – Past 191
FIGURE 102: National vs. Multinational Companies – Present 193

FIGURE 103: National vs. Multinational Companies - Future 194
FIGURE 104: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past 195
FIGURE 105: Less Than 1 billion TL. vs. 1 billion and Over TL.– Present 196
FIGURE 106: Less Than 1 billion TL. vs. 1 billion and Over TL.– Future 198
FIGURE 107: Organizational Costs – Past 199
FIGURE 108: Organizational Costs – Present 199
FIGURE 109: Organizational Costs – Future 200
FIGURE 110: Reporting vs. Not Reporting Companies – Past 201
FIGURE 111: Reporting vs. Not Reporting Companies – Present 202
FIGURE 112: Reporting vs. Not Reporting Companies – Future 203
FIGURE 113: Manufacturing vs. Service Sector – Past 205
FIGURE 114: Manufacturing vs. Service Sector – Present 206
FIGURE 115: Manufacturing vs. Service Sector – Future 207
FIGURE 116: National vs. Multinational Companies – Past 208
FIGURE 117: National vs. Multinational Companies – Present 209
FIGURE 118: National vs. Multinational Companies – Future 210
FIGURE 119: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past 211
FIGURE 120: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present 213
FIGURE 121: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future 214
FIGURE 122: Corporate Communication – Past 215
FIGURE 123: Corporate Communication – Present 215
FIGURE 124: Corporate Communication - Future 216
FIGURE 125: Reporting vs. Not Reporting Companies – Past 217
FIGURE 126: Reporting vs. Not Reporting Companies – Present 218
FIGURE 127: Reporting vs. Not Reporting Companies - Future 220
FIGURE 128: Manufacturing vs. Service Sector – Past 221
FIGURE 129: Manufacturing vs. Service Sector – Present 222
FIGURE 130: Manufacturing vs. Service Sector – Future 223
FIGURE 131: National vs. Multinational Companies – Past 225
FIGURE 132: National vs. Multinational Companies – Present 226
FIGURE 133: National vs. Multinational companies – Future 227
FIGURE 134: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past 228
FIGURE 135: Less Than 1 billion TL vs. 1 billion and Over TL. – Present 230
FIGURE 136: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future 231

LIST OF ABBREVIATIONS

CDP - Carbon Disclosure Project

CSP - Corporate Sustainability Performance

CFP - Corporate Financial Performance

CP – Corporate Performance

CSR - Corporate Social Responsibility

GRI - Global Reporting Initiative

IASB - International Accounting Standards Board

IASC - International Accounting Standard Committee

IFC - The International Finance Corporation

IFRS - International Financial Reporting Standards

IIRC - International Integrated Reporting Council

IR – Integrated Reporting

NGO – Nongovernmental Organization

OCAI - Organizational Culture Assessment Instrument

SEC - U.S. Securities and Exchange Commission

UN – The United Nations

UNCED – The United Nations Conference on Environment and Development

UNCSD - The United Nations Commission on Sustainable Development

UNGC - United Nations Global Compact

U.S. – The United States

WBCSD - World Business Council for Sustainable Development

WCED - World Commission on Environment and Development

1. INTRODUCTION

In recent years, there have been some developments that influence the economic, social and political stability of the world deeply. Within this context, the Industrial Revolution, which began in the late 18th century and extended to the 19th century, has been a milestone for human history. Advancement in information and technology is remarkable for the 20th century. As for the 21st century, as Vice President of the United Nations 67th General Assembly, Vuk Jeremic, states that sustainable development is the global priority in the era that we experience.

Sustainable development refers to an extended consideration of economic growth without damaging or losing social and environmental resources. This framework comprises components that should be protected for the needs of future generations such as freedom, equality, employment, well-being, work and social life balance for human development. On the environmental side, reducing the emissions of greenhouse gases, lowering energy and water consumption, saving non-renewable resources, preserving renewable resources are vital in order to provide equal opportunities to future generations that the currents generations have. If the ecological and social losses generated by the activities carried out for economic growth exceed the benefits provided by economic growth, the final outcome will be a disaster. The reason is that economic growth is inevitably generated and nurtured by the environmental and social circumstances. Therefore, an economic growth that ignores ecological and humanitarian roots cannot be long lasting.

It might be considered that business world is the pioneering element of economic growth. Hence, companies have the responsibility to address environmental and social aspects of life as well as the economic concerns while doing business. This assumption leads to the significance of the recognition of sustainability principles at organizational level that can be identified within the concept of corporate sustainability.

Corporate sustainability can be defined as providing equal opportunities to future stakeholders that today's stakeholders have in terms of economic, social and environmental resources. In order to achieve this ideal, social and environmental interests should be considered at the same level with economic interests.

Today, many organizations do business with corporate sustainability lenses. Recent studies express several drivers for corporate sustainability practices. However, the literature is still incomplete to identify the sub-dimensions of these drivers. In addition, it is also probable that there might be a shift on the assessments of drivers since 1987 when the term sustainable development was coined. Therefore, judgements on the components of drivers might have been changed during this period, and future expectations and foresights may be different from the current situation. Moreover, all of these matters may be influenced by the demographic differences. This study is derived from these questions. In order to explore the assessments of sustainability professionals on these topics, a quantitative study has been conducted and findings are presented in this thesis.

Within this context, the current thesis consists of six chapters. The first chapter presents a literature review on sustainable development and corporate sustainability.

The second chapter examines corporate strategy literature and the association between corporate sustainability practices and strategic outcomes. Therefore, theoretical framework and conceptual background of the study are presented in the first two chapters.

The third chapter elaborates the key drivers for corporate sustainability practices and determine the components of each driver. Further, research hypotheses are introduced within this framework.

The forth chapter provides information about the research methodology. In this context, data collection process, the measurement instrument and research method applied for the analyses are explained.

Findings of the analyses are presented in the fifth chapter.

Finally, the study ends up with the conclusion chapter within which the results of the study together with theoretical and managerial implications, limitations and suggestions for future research are discussed.

2. CHAPTER: FROM SUSTAINABLE DEVELOPMENT TO CORPORATE SUSTAINABILITY

The antecedents of the development of sustainability concept go back to the second half of the 20th century (Yalçınkaya, Durmaz and Adiller, 2011). Following the Industrial Revolution, 19th and 20th centuries have witnessed an increase in economic performance and wealth. Due to the industrialization, population distribution has started to move from rural to urban areas (Küçükkalay, 1997). Meantime, the harmonization of economic wealth with humanitarian, social and environmental issues has started to be questioned (Gönel, n.d.) due to the several negative consequences of socio-economic developments such as destruction of natural resources, rapid consumption of non-renewable energy sources, overlooking fundamental human and labor rights of employees who are the most important factor of production. Especially from 1960s, environmental movements and ecological cognition has started to be influential and from 1980s, social issues have been forceful (Linnenluecke and Griffiths, 2010). Thereby, awareness about evaluation of economic matters by considering environmental and social issues which constitutes the basic focus of sustainability concept has emerged (Özmehmet, 2008).

As Griffiths (2009) state that the concept of sustainability has arisen through Our Common Future, a report by World Commission on Environment and Development (WCED) which is an entity of the United Nations (UN) also known as the Brundtland Commission (WCED, 1987). Brundtland Commission coined the term of sustainable development and linked sustainability to environmental coherence and social equity in addition to economic welfare. Since then, sustainable development which can be viewed as a supranational term due to its emergence, has been taken into consideration and aimed at national, regional and organizational level as well (Altuntaş and Türker, 2012). The 1992 Earth Summit in Rio de Janeiro led to a widespread acceptance of the definition of sustainable development by business people, politicians and nongovernmental organizations (NGOs) (Dyllick and Hockerts, 2002). In 1994, John Elkington coined the term “triple bottom line” that argues a balanced approach including economic, environmental and social interests simultaneously (Elkington, 2004).

Sustainability approach realizes itself at organizational level through corporate sustainability. Corporate sustainability provides a new perspective to

organizational activities, decisions, objectives taking into account of generating balanced solutions of problems which have occurred due to industrialization, urbanization and increasing population (Türker and Altuntaş, 2012). Governments, local authorities, and organizations have started to face with pressures to address environmental and social sentiment regarding to problems that they cause directly or indirectly (Linnenluecke, 2007). Hence, many organizations follow corporate sustainability principles, publish corporate sustainability reports and adapt sustainability measures to organizational performance systems (Dunphy, 2000).

2.1. Concept of Sustainable Development

The concept of development is rooted in the experiences following the Great Depression in the mid-20th century when its negative economic, social and political impacts are witnessed. By the way, studies of economists lead to a new discipline named development economics and underdevelopment phenomenon (Yivilioğlu, 2002). At first, the concept of development has been evaluated as an economic (financial) term related with national wealth. However, as revealed from the reports by United Nations Development Programme (UNDP), in the 21st century, development is recognized within a more comprehensive approach assessing both economic and social aspects such as well-being of population, average income, people's freedom, gender inequity, life expectancy, literacy, education, health and safety (UNDP, 2015). According to Human Development Report (1996: 1), it is the "*end*" whereas economic growth is a "*means*". Therefore, the ultimate aim of development should focus on society and improving the well-being of the people (Human Development Report, 1996). This awareness leads to transformation of the context of development from the basis of economic growth to human development. The concept of sustainable development has proceeded under these circumstances.

The report by WCED in 1987 which is also known as "Our Common Future" is a milestone that leads the sustainable development to be discussed at global level. Sustainable development is defined as follows in this report:

> "*Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of 'needs', in particular the essential needs of the world's poor, to which overriding*

priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs." (WCED, 1987: 41)

According to Our Common Future (WCED, 1987), primary purposes of development are the reassurance of human needs and desires (such as nutrition, sheltering, clothing, employment, etc.) and increasing people's quality of life above than the minimum standards of living. Moreover, the report also calls attention to the risk of depletion of renewable and non-renewable resources due to the pressure generated by the growth of population and productive activities. As a result, the report reveals that sustainable development can only be possible in case of the utilization of resources in harmony with the demographic, commercial, institutional and technological developments taking into account of current and future needs of human beings and future generations. Because of these stated underlying assumptions, Our Common Future is recognized as "*the first overview of the globe, which considered the environmental aspects of development from an economic, social and political perspective*" (Wetherill et. al., 2007; Redclift, 2005: 212).

Conceptualization of sustainable development has been nurtured in Rio de Janeiro at the UN Conference on Environment and Development (UNCED) in 1992 where the description of sustainable development by Brundtland Commission has been recognized and accepted extensively by world political, academic and business leaders (Clark, Crutzen and Schellnhuber, 2005). The impact of sustainability thinking has diffused to Millennium Report (2000) written by UN Secretary-General Kofi Annan (2000: 55) states sustainable development as a "*strategic priority area*" and warns the global community not to "*provide the freedom of future generations to sustain their lives on this planet*". After then, since World Summit on Sustainable Development held in Johannesburg (Rio + 10) from 26th August to 4th September 2002, attaining sustainable development has been acknowledged as a "high table aim" at local, regional, national and international extent (Clark, Crutzen and Schellnhuber, 2005: 3). In the same vein, World Summit on Sustainable Development held in Rio (Rio + 20) in 2012, released "The Future We Want" as a final document after the summit. The recommitment to sustainable development principles through to integrating economic, social and environmental aspects and recognizing their interlinkages to achieve sustainable development goals in regard to fostering equitable social development, sustainable management of natural resources

and ecosystems are the key outcomes of this summit (Boas, Biermann and Kanie, 2016; UNCSD, 2012).

Sustainable development can be recognized as a new paradigm adopted and shared by prominent political and business professionals who are committed to the same intended standards for future generations. A new paradigm is described as "*a new and more rigid definition of the field"* (Kuhn, 1970: 19). Remarkably Kuhn (1970) states that, in case of unwillingness or incapability of adoption to a new paradigm generates either isolation or disengagement from the group. In same vein, sustainable development encourages a transformational process towards a more desirable universe and better future (Viederman, 1994). This transformation process refers to "*the transformation of the functioning of civilization, in accordance with the sustainable development postulates, have become recognized as the beginning of a new revolution in the development of civilization process*" (Pawlowski, 2012: 8) and requires the integration of several spheres comprising moral, ecological, social, economic, legal, technical and political dimensions (Angiel and Angiel, 2015; Pawlowski, 2008: 81-82).

Table 1: Milestones of Sustainable Development

Reference	Description
UN Conference on the Human Environment in Stockholm (1972)	It is agreed on that development cannot be managed unless environment is taken into consideration. Thus, development and the environment can only be handled through mutually advantageous solutions. By the way environmental concerns were firstly introduced to global political agenda and recognized by the international community for development.
World Commission on Environment and Development (1987)	The commission released Our Common Future in other words, the Brundtland Report. The report coined the term sustainable development and the definition of sustainable development in this report became a classic in sustainability literature.
UN Conference on Environment and Development in Rio (1992)	Sustainable development has been recognized by politicians, NGOs, business leaders. Thus, the concept has gathered widespread acceptance by Earth Summit.

Reference	Description
Commission on Sustainable Development (1993)	UN General Assembly established this entity in December 1992 to access sustainable development goals and to ensure an influential follow-up for the principles agreed on Earth Summit 1992.
World Business Council for Sustainable Development (1995)	The Council was created in 1995 through a merger of the Business Council for Sustainable Development (BCSD) and the World Industry Council for the Environment (WICE). The council has 200 member organizations and helps them to find the best business solutions in regard with sustainability issues.
Millennium Report by UN Secretary-General (2000)	The report submitted by the Secretary-General Kofi Annan to the Security Council is remarkable with the prioritization of sustainable development.
The United Nations Global Compact (2000)	The platform that brings companies voluntarily together on ten principles on human rights, labor, environment and anti-corruption which are also important for sustainability issues.
World Summit on Sustainable Development in Johannesburg (Rio+10) (2002)	Sustainable development has been accepted as a "high table aim" at local, regional, national and international extent. Participants attended of 191 national governments, UN agencies, multilateral financial institutions agreed on several international environmental and social issues, including human rights, natural resource management, pollution, such as eradication of poverty, reduction of dependence on fossil resources, conservation of biodiversity, to conduct national sustainable development strategies.
World Summit on Sustainable Development in Rio (Rio+20) (2012)	"Future We Want" expresses the integration of economic, social and environmental concerns to achieve sustainable development.

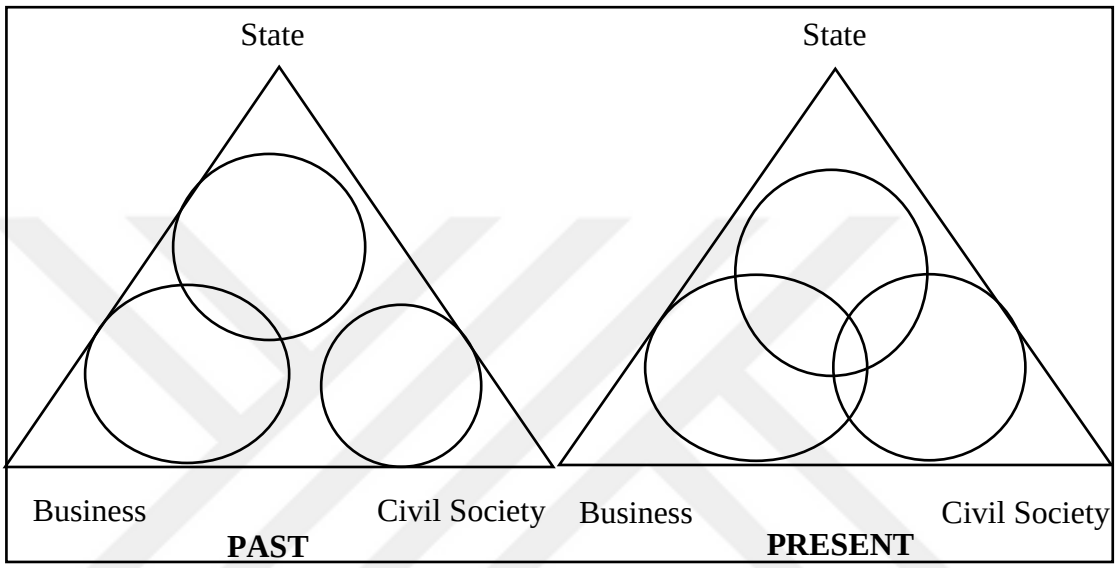
Source: Composed by the researcher

2.2. Concept of Corporate Sustainability

Consciousness on sustainable development has been transposed to business level as corporate sustainability. After the Industrial Revolution, the era of sustainable development has created a new value system dominated by "*a more humane, more ethical and more transparent way of doing business*" (Van Marrewijik, 2003: 97). To Van Marrewijk (2003), there is a triangular relationship among business, state and civil society. In this relationship, state is responsible for

legislation and control mechanism whereas business focuses on creating wealth in competitive market. Besides, civil society, which has increased its significance, builds, develops and forms the society through collective actions and involvement of civilians and NGOs and impact organizations to take further steps regarding to sustainable practices.

Figure 1: State, business and civil society



Source: Van Marrewijk, M. 2003. Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *Journal of business ethics*, *44*(2), p: 100.

As societal values and intentions have shifted, organizations face with pressures to incorporate into sustainability practices (Sharma and Vredenburg, 1998) and they could no longer ignore this contemporary change. Theoretically, the reason of this pressure derives from stakeholder theory (Freeman, 1984) which will be explained in the following parts. On the basis of stakeholder theory, corporate sustainability is defined as "*meeting the needs of a firm's direct and indirect stakeholders ... without compromising its ability to meet the needs of future stakeholders as well*" (Dyllick and Hockerts, 2002: 131).

As corporate sustainability is a comprehensive concept, researchers could not agree on a common corporate sustainability definition (Linnenluecke and Griffiths, 2010). Instead, some scholars deal with the concept primarily with ecological focus (i.e. Post and Altma, 1994; Shrivastava, 1995), while some scholars predominantly

consider corporate social performance rather than corporate sustainability (i.e. Clarkson, 1995; Turban and Greening, 1997). In addition, with the lenses of stakeholder theory, organizations have responsibilities to their stakeholder and interest groups (Freeman, 1984). However, different stakeholders have different demands and expectations. Accordingly, it might be assumed that different stakeholders may ascribe different meanings on their concept of sustainability as a result of their self-interests and concerns. In other words, it is possible that environmentalists may be more concerned about the savings in energy and water consumption, waste or recycled material management whereas customers may have concerns in regard to customer privacy or product health and safety (Lu and Taylor, 2016).

Furthermore, many scholars work on corporate sustainability through interconnecting economic, environmental and social aspects with a holistic view in accordance with the Brundtland Commission's definition for sustainable development (i.e. Dyllick and Hockerts, 2002; Van Marrewijik, 2003). Accordingly, corporate sustainability just as sustainable development necessitates the simultaneous acceptancy of economic, social and environmental principles and satisfaction of all these standards.

Definitions and descriptions about different perspectives of corporate sustainability are stated on Table 2 and Table 3.

Table 2: Corporate Environmental Management Related Views

Reference	**Description**
Post and Altma (1994: 64)	Changes in business operations have been occurring throughout the modern environmental era, but incremental adjustments are no longer sufficient; whole new ways of manufacturing and managing natural resources are emerging to accommodate environmental requirements. Conceptualizing organizational purpose in terms of sustainable economic and environmental performance signals a major shift in thinking about the impact and significance of ecological factors.

Reference	Description
Shrivastara (1995: 938)	I suggest four ways that corporations can contribute to ecological sustainability through (a) total quality environmental management (TQEM), (b) ecologically sustainable competitive strategies, (c) technology - for-nature swaps, (d) the reduction of the impact of populations have on ecosystems.
Klassen and McLaughlin (1996: 1199)	Environmental management encompasses all efforts to minimize the negative environmental impact of the firm's products throughout their life cycle. Environmental performance measures how successful a firm is in reducing and minimizing its impact on the environment.
Bansal and Roth (2000: 717-718)	We define corporate ecological responsiveness as a set of corporate initiatives aimed at mitigating a firm's impact on the natural environment. These initiatives can include changes to the firm's products, processes, and policies, such as reducing energy consumption and waste generation, using ecologically sustainable resources, and implementing an environmental management system. Our concept of corporate ecological responsiveness refers not to what a firm *should* do, but to the initiatives that reduce the firm's 'ecological footprint'.
Christmann (2000: 664)	The substantial nature of environmental protection costs implies that strategies that affect these costs are an important determinant of a firm's competitive position. The environmental management literature suggests that firms can improve their competitive position and at the same time reduce the negative effects of their activities on the natural environment by implementing certain 'best practices' of environmental management.
Harding (2006: 233)	Ecologically sustainable development (ESD) is a peculiarly Australian term and arose in the early stages of a government-initiated discussion of sustainable development in Australia in 1990. It seems that the environmental groups, concerned that the sustainable development discussion process would be hijacked by business and industry and interpreted as just *economically* sustainable development, successfully fought for inclusion of the *ecologically*, in the "official" terminology. This is the term that has been used since then in Australia including in legislation and policy.

Source: Composed by the researcher

Table 3: Corporate Social Performance (CSP) Related Views

Reference	Description
Carroll (1979: 499-501)	Social Performance Model includes; 1- Social responsibility categories (such as economic, legal, ethical and discretionary) 2- Social issues (such as consumerism, employment discrimination, product safety, occupational safety and health, business ethics) 3- Philosophy of social responsiveness: The philosophy, mode, or strategy behind business response to social responsibility and social issues. The term generally used to describe this aspect is 'social responsiveness'."
Wartick and Cochran (1985: 758-762)	CSP model: The underlying interaction among the principles of social responsibility, the process of social responsiveness, and the policies developed to address social issues and developed the CSP Model by Carroll by focusing on three challenges: 1- Economic responsibility 2- Public responsibility 3- Social responsiveness
Wood (1991: 693)	CSP refers to a business organization's configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships.
Clarkson (1995: 92)	I propose that CSP can be analyzed and evaluated more effectively by using a framework based on the management of a corporation's relationships with its stakeholders than by using models and methodologies based on concepts concerning corporate social responsibilities and responsiveness.
Turban and Greening (1996: 658)	CSP is a construct that emphasizes a company's responsibilities to multiple stakeholders, such as employees and the community at large, in addition to its traditional responsibilities to economic shareholders.
Johnson and Greening (1999: 565)	Five dimensions as a firm's social performance with regard to local communities, women and minorities, employee relations, the natural environment, and the quality of products or services.

Source: Composed by the researcher

Table 4: Holistic Approaches on Corporate Sustainability

Reference	Description
Viederman (1994: 5)	Sustainability is a participatory process that creates and pursues a vision of community that respects and makes prudent use of all its resources-natural, human, human-created, social, cultural, scientific, etc. Sustainability seeks to ensure, to the degree possible, that present generations attain a high degree of economic security and can realize democracy and popular participation in control of their communities, while maintaining the integrity of the ecological systems upon which all life and all production depends, and while assuming responsibility to future generations to provide them with the where-with-all for their vision, hoping that they have the wisdom and intelligence to use what is provided in an appropriate manner.
Wilson (2003: 1)	While corporate sustainability recognizes that corporate growth and profitability are important, it also requires the corporation to pursue societal goals, specifically those relating to sustainable development, environmental protection, social justice and equity, and economic development.
Sharma and Henriques (2005: 160)	Corporate sustainability refers to development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.
Bansal (2005: 199-200)	Sustainable development has three principles (environmental integrity, economic prosperity, social equity) and each of these principles represents a necessary, but not sufficient, condition; if any one of the principles is not supported, economic development will not be sustainable. Organizations must apply these principles to their products, policies, and practices in order to express sustainable development. 1- Environmental integrity through corporate environmental management 2- Economic prosperity through value creation 3- Social equity through corporate social responsibility
Scott and Bryson (2012: 140)	The popular, narrow definition of sustainability (or sustainable development) is, 'meeting the needs of the present without compromising the ability of future generations to meet their own needs' (WCED 1987). This definition is frequently shortened to mean, 'protecting the environment'. But in recent years, it has

	been recast as a broader concept, encompassing the social, economic, environmental and cultural systems needed to sustain.
Lozano, 2012a	Corporations' continuous contributions to sustainability equilibria, which include the economic, environmental, and social dimensions of today, as well as their interrelations within and throughout the time dimension (i.e. the short-, long-, and longer-term). This is done through addressing the company's system: operations and production, management and strategy, organizational systems, procurement and marketing, and assessment and communication.

Source: Composed by the researcher

Despite the approach differences, academics and practitioners commonly agree on the fact that corporate sustainability is a tridimensional concept comprising economic, environmental and social concerns (Altuntaş and Türker, 2012). For instance, Corporate Sustainability Conference at Erasmus University, Rotterdam in 2002 considered corporate sustainability "*as the ultimate goal*" (Van Marrewijik, 2003: 101) that integrates economic, social and environmental dimensions. In the same vein, Pawlowski (2012: 8) states that the concept of sustainable development is multidimensional "*... initially focusing on the protection of the environment, but quickly engulfing other areas of human activity starting with the management of Earth's resources and ending with the ethical aspects*".

Reconciliation of economic, social and environmental standards of an organization has been grounded from triple bottom line (TBL), the term coined by Elkington in 1994 (Elkington, 2004). TBL is a 3P formulation consisting People, Planet and Profits which was developed by a well-known work "Cannibals with Forks: The Triple Bottom Line of 21st Century Business" (Elkington, 1997). People, planet and profits represent respectively social, environmental and economic dimensions of sustainable development. Elkington (2004) suggests seven drivers that pursue organizations to consider social and environmental concerns together with the economic ones. He proposes that political and economic communities are going to experience a "*global cultural revolution*" through a transition in terms of these drivers (Elkington, 2004: 3).

Figure 2: Seven Sustainability Revolutions

Drivers	Old Paradigm		New Paradigm
Markets	Compliance	→	Competition
Values	Hard	→	Soft
Transparency	Closed	→	Open
Life-cycle technology	Product	→	Function
Partnerships	Subversion	→	Symbiosis
Time	Wider	→	Longer
Corporate governance	Exclusive	→	Inclusive

Source: Elkington, J. 2004. Enter the triple bottom line. *The triple bottom line: Does it all add up*, *11*(12), p: 3.

According to Elkington (2004: 3-5), markets are the first base where Revolution 1 is going to be experienced. Fierce competition in national and international markets will sharpen and generate a transformation. Through this transformation, organizations will follow up TBL thinking for survival and growth. Revolution 2 will take place in human and societal values. Transparency Revolution will increase international transparency so that, organizational activities and behaviors will be under scrutiny. By the way all stakeholders will be more aware of business world in benchmarking and ranking the organizations. Guidelines by Global Reporting Initiative (GRI) are recognized as a consequence of new transparency approach. Life-cycle technology of Revolution 4 will be influential on each phase of the supply chain activities. Thus, there will be a change in the extraction, recycling or disposal of raw materials in regard with TBL thinking. New paradigm on partnerships by Elkington (2004) is in the same vein with "Cooperate to Compete Globally", the assertion by Perlmutter and Heenan (1986). Accordingly, for the long term success, companies will conduct permanent and good relations and cooperation with other companies and organizations. In contrast to being taught to us, Revolution 6 represents long time horizon for business plans considering future generations instead of short-term perspective. Finally, Revolution 7 questions and focuses on for what and for whom the business is. Corporate governance with a

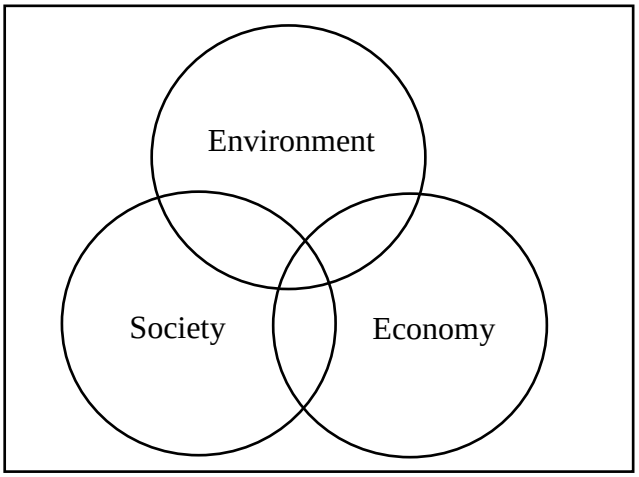
balanced stakeholder approach will support corporate sustainability (Elkington, 2004: 5-6). These facts and drivers suggested by Elkington (2004) that prompt to companies and organizations adopt TBL thinking, planning and accounting.

Hence, a widely recognized sustainability definition states that "*sustainability is the triple bottom-line consideration of economic viability, social responsibility, and environmental responsibility*" (Lu and Taylor, 2015: 1; Gabrusewicz, 2013: 37). In order to be more sustainability oriented, organizations need to transform from conventional to sustainable practices through organizational change and organizational learning processes that include providing sustainable products, services and processes, internal and external communication strategies, controlling mechanisms, sustainability reporting frameworks, and basic values (Siebenhuner and Arnold, 2007: 340).

2.2.1. Dimensions of Corporate Sustainability

Corporate sustainability is represented by three main dimensions namely economic sustainability, social sustainability and environmental sustainability (Antolin-Lopez, Delgado-Ceballos and Montiel, 2016). Moreover, TBL perspective of integrating economic, social and environmental aspects simultaneously has extensively resonated with business people, academics and policy makers (Sharma and Henriques, 2005). Hence, companies have started to engage in activities that address environmental and social problems occurred due to organizational activities while continuing efforts to provide economic growth (Hahn and Scheermesser, 2006). On the other hand, academic studies have been incrementally conducted to provide theoretical and empirical basis for the tridimensional corporate sustainability practices (i.e. Gladwin, Kennelly and Krause, 1995; Dyllick and Hockerts, 2002; Bansal, 2005; Atkinson, 2010). In general, these researchers advocate that economic, social and environmental aspects of corporate sustainability are interrelated. Giddings, Hopwood and O'Brien (2002: 189) state that, the relationship among three dimensions of sustainability is represented by a symmetrical interconnection with three equal sized rings that symbolize a balance and reconciliation of economic, social and environmental interests.

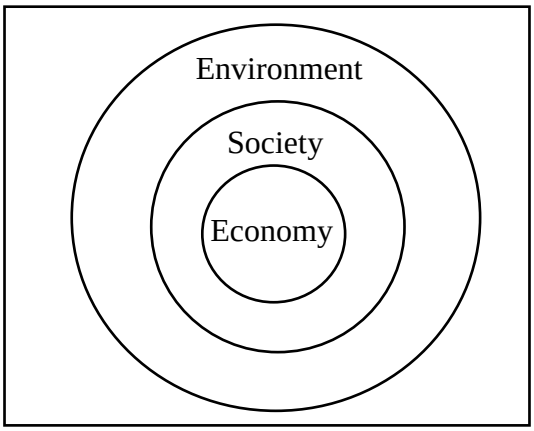
Figure 3: Common Three-Ring View



Source: Giddings, B., Hopwood, B. ve O'Brien, G. 2002. Environment, economy and society: fitting them together into sustainable development. *Sustainable Development,*10(4), p:189.

In this model, the risk of thinking the dimensions separately is discussed as a weakness (Giddings, Hopwood and O'Brien, 2002: 189). According to this argument, as there are separated parts of the aspects in addition to an interconnection, the decision about the prioritization of a dimension generates a limitation. In order to cope with this problem, another model has been put forward. Accordingly, economy takes a part within the social aspect and both of these are embraced by the environment (Montiel, 2008).

Figure 4: Nested View



Source: Giddings, B., Hopwood, B. ve O'Brien, G. 2002. Environment, economy and society: fitting them together into sustainable development. *Sustainable Development,*10(4), p: 192.

According to the nested model, there is interdependence between the dimensions of sustainable development. In other words, economy is depended on society whereas environment embraces in turn society and economy (Giddings, Hopwood and O'Brien, 2002: 192). This view is parallel with the sustainable development report titled "*Beyond Economic Growth*" by Soubbotina (2004) that was prepared for the World Bank. According to this report, sustainable development should focus on the interrelated economic, social and environmental dimensions simultaneously through balancing interests of the distinct groups in a population, current generation and future generations (Soubbotina, 2004: 10). This refers not only a holistic and simultaneous view on sustainability dimensions but also a comprehensive approach of equity. Thus, a holistic approach that integrates three dimensions has been recognized to understand and adopt corporate sustainability. This approach is opposite of single-sided view focused on the short run economic gains. Contrary, in order to ensure corporate sustainability comprehensively, companies should be in favor of "*sustaincentrism*" (Gladwin, Kennelly and Krause, 1995: 876), the new paradigm of integrating economic, social and ecological dimensions. Integrated approach is essential towards overall and long run sustainability goals and not only economic dimension, but also social and environmental dimensions should be satisfied simultaneously through the sustainability journey (Dyllick and Hockerts, 2002: 132). As a result, it is widely recognized that sustainable development is a holistic concept where environment, social equity, and economics intersect (Bansal, 2002). Hence, organizations should integrate the economic, social and environmental disciplines which seem separated or conflicting at first glance (Zink, 2007).

2.2.2. Concepts and Theories Relevant With Corporate Sustainability

Following the emergence of sustainable development as a requirement for the well-being of future generations, business world has become more aware of. Adoption of the corporate sustainability notion and its principles comply with the contribution of UN recommendations and GRI Guidelines. While companies are recognized as the productive resources of the economy, without the support of the companies, the society is considered to be unable to achieve sustainable development

goals. For this reason, companies should work actively not only to produce goods and services that create economic value but also to improve living standards, to reduce the environmental and social problems that they cause due to their operational business activities (Hahn and Scheermesser, 2006). Hence, the theoretical basis of integrating sustainability vision into corporate values has been scrutinized. Recent literature provides various approaches on that point. These different views are presented in this section.

2.2.2.1. Economic and Social Transformation

Capitalism, which started with the industrial revolution in the last quarter of the 18th century, became to dominate world economic system in the 20th century. While capitalist-world-economy was growing into as a frequently used phenomenon both in business and daily life, researchers were discussing and criticizing economic, social and political effects of capitalism (e.g. Polanyi, 1944).

Saint (2011) states main features of capitalism in regard to 21st century experiences as agreed by World Alliance of Reformed Churches. These features are explained as follows (Saint, 2011: 1-8):

- Generating profit has a prioritization even than common good.
- As the role of government in regulating markets has decreased, than competition becomes unrestrained not considering social, consumer or environmental protection.
- Although economic growth and accumulation of wealth has increased, inequality has increased as well. As wealth concentration growing faster than poverty reduction, the rich get richer.
- As consumption derives growth, consumption must be encouraged.
- Countries prefer deregulations of markets and participate in free trade agreements in order to eliminate trade barriers.
- Foreign direct investment has increased and resulted in unrestricted capital flows and the migration of work force.
- Opportunities are sought different sectors with lower costs as taxes are a barrier to growth.

- In order to maximize the profits, costs are minimized and social responsibilities are underestimated.
- Depletion of natural resources and water generate high environmental costs.

These features have been foreseen years ago in the critics of capitalism that is described as discrepancies of capitalist inequality. The discrepancies are relevant with the system and social structure (Giddens, 2014). Accordingly, an economy which desires to make profit constantly fuels the competition among capitalists. Fierce competition will enhance the likelihood of a decrease in profit margin. In case of a decrease in profits, wages will go down and as a result, purchasing power gets lower in turn. In parallel, there will be a rise in poverty, income inequality and diversity in society will become even more sharpened. This entire process refers to a discrepancy of capitalism.

One of the most remarkable works about the inequalities that capitalism can cause is titled as "The Great Transformation: The Political and Economic Origins of Our Time" by Polanyi (1944). Although the book was first published in 1944, Polanyi's judgements have started to be discussed in detail from 1980s. According to Polanyi (1944), market economy of liberal capitalism is against human nature as it takes labor, land and money into a commodity and makes the society unconditionally dependent to this system. This situation indicates the threat of collapse of civilization that has already happened according to Polanyi (Polanyi, 2000: 11).

"*Capital can be accumulated by using the Earth's resources and human labor*" as explains Pawlowski (2012: 9). So that, in order to ensure the continuity, permanence and stability of generating capital; social and environmental interests have to be safeguarded. Otherwise, degradation of environment and humanitarian problems such as inequality, injustice of income distribution, poor quality of life can negatively affect overall systems in the world. If the ambition to make profit gives irreversible damage to the social and environmental aspects, there will be no resources to generate capital for the future. From this point of view, principles of sustainable development should be taken into account and economic interests should be addressed with social and environmental systems with the lenses of "*intra-generational justice*" (Pawlowski, 2012: 7). Hence, it is generally recognized that global capitalism has been challenged in regard to the protection of ecological systems, social and cultural heritage because of the fact that global economy depends

on and builds on these values (Hart and Milstein, 2003). Within this context, sustainability principles represent the resolution of particular expectations for the conservation of economic, social and environmental systems from depredation.

2.2.2.2. Capital Theory

Contribution by Pierre Bourdieu to capital theory is considered as a cornerstone. His classification of capital that he defines as "*accumulated labor*" composes economic capital, cultural capital and social capital (Bourdieu, 1986: 241).

Nested view of sustainable development leads to a re-appraisal of factors of production at organizational level in terms of corporate sustainability. In classical economic thought, land, labor and capital together with entrepreneurship are the main sources contributed to production and economic wealth (Barber, 1967). Due to the transformation from classical economics era to sustainable development era, factors of production have been revised. Thereby, each dimension of sustainability has begun to be recognized as a type of capital and organizations "*have to maintain and grow their economic, social and environmental capital base while contributing to sustainability*" (Dyllick and Hockerts, 2002: 131-132).

Arising from the discussion of that capital theory is concerned with sustainable development (Victor, 1991), Svendsen and Sørensen (2007) state seven types of capital which are effective in sustainable development. According to their classification, there are three tangible capital - namely physical, natural, economic capital-, one less tangible capital –namely human capital, and three intangible capital –namely social, organizational, cultural capital (Svendsen and Sørensen, 2007: 454). In terms of an appraisal of capital theory to sustainability, all items within the scope of economic, environmental and social capital maintain capital stock (Stern, 1995). The work by Dyllick and Hockerts (2002) explains the sustainability dimensions by means of capital basis in detail. Accordingly, economic capital such as machinery, land, equity, debt, stocks, reputation, know-how, intellectual property etc. should be managed exhaustively for economic sustainability. It is because, economic sustainability represents a sign of confidence of that organization can always assure a proper cash-flow and a long lasting and good level of return to their shareholders. On the other side, environmental sustainability is related with natural capital including renewable and non-renewable resources, and ecosystem services (such as water

conversation, biodiversity, reproduction of plants, etc.). Thus, environmentally sustainable companies can manage natural capital in a good manner and balance the industrial aspects with eco-system concerns. Finally, social sustainability has an association with social capital that comprises both human capital (e.g. skills, knowledge, employee loyalty, etc.) and societal capital (e.g. relationships between individuals and institutions, quality of public services). If the organizations can encourage self-renewal, democracy, fair assessment and so on in overall processes, then they can be socially sustainable and recognized as trustworthy; and in turn they can add value to their stakeholder groups (Dyllick and Hockerts 2002: 132-133). By the way, in accordance with the capital rule, there can be a sustainable development in case the development guarantees, maintains and enhances the constant capital stocks over time (Victor, 1991; Stern, 1995).

Furthermore, another noteworthy and important question relevant to sustainability is about the substitutability of different types of capital. Substitutability versus non-substitutability debate determines the weak or strong sustainability (Figge and Hahn, 2004: 174). Accordingly, there is a weak sustainability where different types of capital substitutable by each other. In other words, in case of a loss in one type of capital, it can be substituted by a surplus in another type of capital (Hahn and Figge, 2011: 328). Contrary, strong sustainability refers to that different types of capital are non-substitutable and complements to each other, so that they should be managed not to be lowered below the critical degree (Figge and Hahn, 2004: 174).

2.2.2.3. Resource-Based View

As the dimensions of corporate sustainability are recognized as types of capital according to capital theory, each dimension is also an asset for organizations. Thus, corporate sustainability becomes relevant with resource based view which focuses on resources of an organization for continuous growth (Penrose, 1959). Organizational resources contain all assets, knowledge, technology, organizational capabilities, and processes (Barney, 1991: 101). In fact, the idea of emphasizing resources stems primarily from strategy studies (e.g. Andrews, 1971) which assess resource position in regard to organizational strength and weaknesses (Wernerfeld, 1984). Resource-based view indicates that, not all resources have the same importance for strategic position and competitive advantage of an organization. In

other words, in order to obtain positive organizational outcomes such as profitability, value creation and competitive advantage, organizations have useful resources with four specific attributes (Barney, 1991). Hence:

> "*(a) It must be valuable, in the sense that it exploit opportunities and / or neutralizes threats in a firm's environment, (b) it must be rare among a firm's current and potential competition, (c) it must be imperfectly imitable, (d) there cannot be strategically equivalent substitutes for this resource that are valuable but neither rare or imperfectly imitable*." (Barney, 1991; 105-106).

Under these circumstances, machine capacity, customer capacity, production experience, technological leads are some examples of resources that lead to strong position to organizations (Wernerfelt, 1984: 174). In addition, as Grant (1991) states that there are both tangible resources such as financial resources, plants, and raw materials and intangible resources such as human resources, people-based skills, and corporate reputation. What essential is that the difference between the book value and market value is generated from the intangible resources, so that they have strategical importance (Grant, 1991: 119).

Deriving from resourced-based perspective and capital theory, economic, social and environmental dimensions of corporate sustainability are important resources for organizations. If they are managed effectively, they can be valuable and inimitable resources that create stakeholder value (Dyllick and Hockerts, 2002). Moreover, corporate sustainability practices require investments and enhancement of the existing resources of the organization (Bansal, 2005), and this has also a positive impact for the organization in turn. Thus, corporate sustainability can be evaluated with strategical lenses as a vehicle that exploits new opportunities throughout fierce competition.

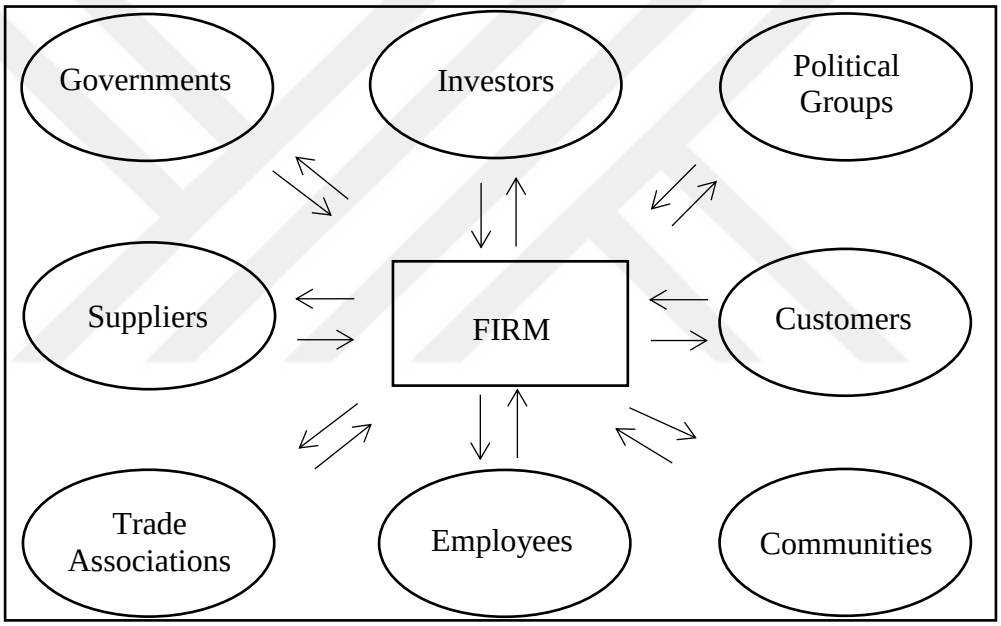
2.2.2.4. Stakeholder Theory

Stakeholder theory has gained a great deal of interest and examination by management scholars particularly after Freeman's (1984) well-known work of "Strategic Management: A Stakeholder Approach" was published (Donaldson and Preston, 1995). The main principles of this theory state that an organization has relations with several groups and these groups called as stakeholder. Stakeholders are

affected by the decisions of the organization and they are also influential on the decisions of the organization in turn (Freeman, 1984). Therefore, the interests of stakeholders are significant in terms of organizational activities (Clarkson, 1995).

Stakeholder theory focuses on the associations between the organization and its stakeholders regarding to linkages, consequences, management and decision making processes (Jones and Wicks, 1999). There are both internal and external stakeholders whose interests may conflict at times (Polonsky, 1995). Hence, organizations make an effort to manage stakeholder relations and to satisfy their expectations taking into consideration of overall corporate goals.

Figure 5: The Stakeholder Model



Source: Donaldson T, & Preston L.E. 1995. The stakeholder theory of the corporation: concepts, evidence, and implications. *The Academy of Management Review* 20(1), p: 69

The concept of stakeholder should be considered in a broad range of groups (Polonsky, 1995) who have "*stakes*" in the organization (Donaldson and Preston, 1995). Post, Preston and Sachs (2002: 8) have developed a definition of stakeholder as below:

> "*The stakeholders in a firm are individuals and constituencies that contribute, either voluntarily or involuntarily, to its wealth-creating capacity and activities, and who are therefore its potential beneficiaries and/or risk*

bearers." (Post, Preston and Sachs, 2002: 8; Lourenço, Branco and Curto, 2012: 419).

Drawing on this definition, in general, employees, shareholders, owners, suppliers, consumers, legal system, financial institutions, investors, media, scientific community, trade associations, government are taken into consideration in regard to stakeholder context (Clarkson, 1995; Polonsky, 1995; Donaldson and Preston, 1995).

Stakeholder theory indicates that organizations have responsibilities to their shareholders and other interest groups (Freeman, 1984). Moreover, the survival and continuity of an organization is possible only if that organization establishes and maintains permanent and strong relationships with all members of its stakeholder network (Donaldson and Preston, 1995). These relationships are not only the major assets that should be managed but also the primary sources of organizational prosperity (Post, Preston and Sachs, 2002: 8). So that, the maintenance and long term success of an organization depends on the strength of its associations within entire stakeholder network which should be taken into consideration in a broad range including shareholders, investors, employees, customers, public, civil society rather than only one single group (Clarkson, 1995, p. 112). Because, "*[M]ultiple stakeholders (a) set expectations for corporate performance, (b) experience the effects of corporate behavior, and (c) evaluate the outcomes of corporate behavior*" (Wood and Jones, 1995: 229).

Furthermore, as value creation process refers to comprehensive, shared and fulfilled stakeholder expectations, an organization can create value in case it ensures a sustainability – oriented management strategy considering current and future needs of its stakeholders. This strategy comprises organizational processes and performance systems both are arranged on the basis of an integrated perspective of economic, social and environmental dimensions of corporate sustainability. Moreover, continuity, maintenance and growth of an organization depend on the continuity of the relationships with all groups in its overall stakeholder network (Perrini ve Tencati, 2006).

Under these circumstances, it is recently witnessed that, several organizations have started to move towards corporate sustainability through changing their policies, processes or products they offer to market in order to decrease pollution, resource use and enhance stakeholder relations (Crane, 2000). According to Zink

(2007), on the basis of stakeholder expectations, organizations have already adopted several management philosophies such as total quality management and six sigma in order to obtain stakeholder value. However, in some cases when the stakeholder value is overlooked or misunderstood, some difficulties or mistrust occurs. In order not to face a problem in this sense, organizations should focus on corporate sustainability as its importance has been increasing and change management of corporate culture to adopt sustainability practices extensively (Zink, 2007).

2.2.2.5. Institutional Theory

In literature, the question of how organizations can adopt and operationalize corporate sustainability principles has been studied as well. Bansal (2005) offers an explanation to the application of corporate sustainability practices in organizations through institutional theory.

Institutional theory dates back at late 1940s when Philip Selznick published his work about the sociology of formal organization (Dereköy, 2015). Selznick (1949: 25) remarks that organizations are formal structures and rationally ordered instruments in order to achieve organizational goals. In this regard, organizational activities are consciously coordinated. The remarkable contribution of Selznick (1949) is the idea of dealing with formal structures through taking into account that every system could find an opportunity of self-realization within a social structure. Therefore, an organization could exist between an economy and a social structure. Economy side forces organizations to make rational decisions assessing the concerns such as resources, efficiency and effectiveness (Selznick, 1949: 29-30). Members of organizations do not always behave within the organizational job definitions. One of the important aspects of institutionalism is the process of gaining value beyond the technical requirements (Özen, 2007: 249-250).

The publication of "Institutionalized Organizations: Formal Structure as Myth and Ceremony" by Meyer and Rowan (1977) has a significant role on the popularization of the theory. In general, the theory deals with the environment where organizations operate the business and takes organizations as social actors (Tolbert and Zucker, 1996). In the same vein, the following excerpt is significant (Meyer and Rowan, 1997: 340):

"*[O]rganizations are driven to incorporate the practices and procedures defined by prevailing rationalized concepts of organizational work and institutionalized in society. Organizations that do so increase their legitimacy and their survival prospects, independent of the immediate efficacy of the acquired practices and procedures*." (Meyer and Rowan, 1977: 340)

From 1980s, New Institutionalism proposed by Di Maggio and Powell has started to be discussed by scholars (Dereköy, 2015). Together with their contributions, institutional theorists agree on that organizational structure and processes are shaped with harmonization to the organizational environment. For survival, not only technical requirements of performance and productivity but also gathering legitimacy as a result of adaptation to other organizations in the same social context are essential. Under these circumstances, organizations that are operating within the same system start to represent similarities. The goal of gathering legitimacy forces an organization to behave in a consistent manner with other organizations within its environment and as a result, isomorphism becomes inevitable (Özen, 2007: 241). Furthermore, nonfulfillment of institutionalized principles such as legal, market or societal pressures has a negative impact on organizational acceptancy, legitimacy and survival (Oliver, 1991).

In the framework of the stated assumptions, Bansal (2005) argues the reasons behind the relevance of institutional theory and corporate sustainability. Accordingly, sustainable development is an important concept taking pretty much attention and has been discussed from 1980s in order to set the fundamental principles. In consequence of, basic constituents have been developed and components of sustainable development have started to get institutionalized through legislations (Bansal, 2005: 202). Hence, sustainable development can be recognized as an institutionalized norm. So that, organizations can face pressures on application of corporate sustainability practices and their commitment to sustainability practices can be judged for legitimacy.

2.2.3. Measurement of Corporate Sustainability Performance

In order to constitute permanent and reliable stakeholder relations, organizations need appropriate measurement and control mechanisms and tools to assess corporate sustainability performance as long as corporate operations are

carried out within the framework of sustainability principles. In accordance with this, corporate sustainability assessment tools and guidelines have been developed and organizations have been publishing corporate sustainability reports increasingly over years.

2.2.3.1. Ground of Measuring Corporate Sustainability Performance

The basis of measuring and reporting corporate sustainability has been progressed in parallel with the developments of financial reporting and non-financial reporting.

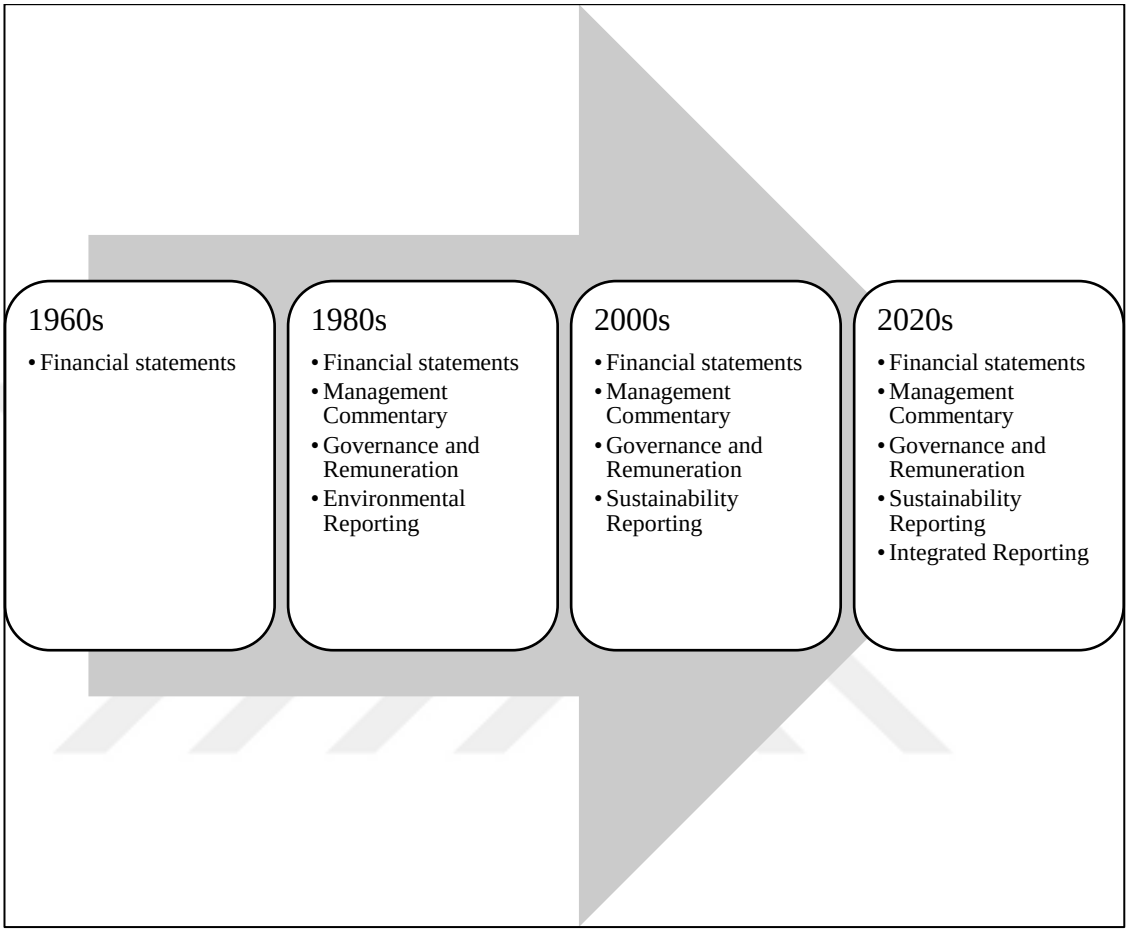
The evolution of financial and non-financial reporting, which is demonstrated on Figure 6, has a linkage with the economic developments. In other words, years ago, economic relations started in terms of traders. Hence, the economy has been evolved from a trade based system to the industrialized system. As a result, from the beginning of 20th century when the American capital market began to expand and to attract more investment, sharing of financial and accounting information, not only with the shareholders but also with all stakeholder groups has been accepted as a necessity and a communication vehicle that presents reliability and the progress of business activities (Fărcaş, 2015).

Initial financial reporting efforts were arbitrary initiatives. This situation continued until the banking crisis that was experienced in 1933 in the United States (U.S.). After then, financial reporting became mandatory by Securities Act of 1933 (Karğın, Aracı and Aktaş, 2013: 30). Securities Act which was "*a national initiative, but had an international impact*" was regulated and enforced by the U.S. Securities and Exchange Commission (SEC) which served from 1933 to 1973 as a legal and authorized entity for standardization of U.S. financial reporting (Fărcaş, 2015: 108).

The new period following the Securities Act has witnessed national and international attempts (e.g. International Accounting Standard Committee - IASC, International Financial Reporting Standards – IFRS, International Accounting Standards Board - IASB) of developing a conceptual framework for financial reporting up to the 21st century. As for the regulations in Turkey, with an amendment made in the Turkish Commercial Code, starting from January 1st, 2013, the

preparation of financial statements requires the application of Turkish Financial Reporting Standards in accordance with IFRS (Ernst and Young, 2013).

Figure 6: The Evolution of Corporate Reporting



Source: International Integrated Reporting Council - IIRC, 2011. Towards Integrated Reporting Communicating Value in the 21st Century, pp: 6-7.

The development of corporate reporting, which started with voluntarily financial reporting, continues with more detailed forms of reports covering several aspects relevant with organizational activities over time. In this process, the global social and environmental developments and changes have been influential. For instance, from the mid-1970s, the concept of social and environmental auditing and reporting has started to gain widespread attention (Gray, 2000). Rob Gray, who works in this field, defines social accounting as follows (Gray, 2000: 248):

> "*[T]he preparation and publication of an account about an organization's social, environmental, employee, community, customer and other stakeholder interactions and activities and, where, possible, the consequences of those*

interactions and activities. The social account may contain financial information but is more likely to be a combination of quantified non-financial information and descriptive, non-quantified information" (Gray, 2000: 248).

Deriving from the excerpt above, by social accounting, the limits of the elements to be taken into account in corporate reporting have evolved to be more comprehensive than the numerical values in financial reports. In other words, a new approach of corporate reporting including both quantitative and non-quantitative but descriptive information about all stages of the value chain and presenting sensitivity of the organizations to the society and the environment within which they operate has started to be recognized and shared with stakeholders. Improvement in the context of traditional financial reporting has started with social accounting and reporting by 1970s and this improvement has continued to proceed towards environmental issues by 1980s (Hahn and Kühnen, 2013).

By 2000s, sustainability reporting has developed as a result of this shift and it is assumed that by 2020s, integrated reporting (IR) which integrates *"material information about an organization's strategy, governance, performance and prospects in a way that reflects the commercial, social and environmental context within which it operates"* (International Integrated Reporting Council - IIRC, 2011: 6) will be influential in terms of corporate reporting to create value for stakeholders (Humphrey, O'dwyer and Unerman, 2017).

2.2.3.2. Sustainability Reporting

Global Reporting Initiative (GRI) that is an international organization works for rising awareness of the fundamental sustainability concerns defines the sustainability report as follows:

"*A sustainability report is a report published by a company or organization about the economic, environmental and social impacts caused by its everyday activities. A sustainability report also presents the organization's values and governance model, and demonstrates the link between its strategy and its commitment to a sustainable global economy*." (GRI, 2016).

Lozano (2009) identifies two basic purposes of an organization in publishing sustainability report. Accordingly, the first purpose is the assessment of the current

economic, social and environmental dimensions that the organization engaged with. The second aim is to explain corporate sustainability efforts and improvements on this field to its stakeholders. Therefore, a sustainability report is a communication instrument of sustainability performance that is presented to all stakeholders including overall organizational posture of corporate processes, economic, social and environmental operations. In addition, a sustainability report establishes a nexus between financial and nonfinancial performances of an organization.

Researchers have also conducted theoretical and empirical studies on the benefits of sustainability reporting. Table 5 presents the main advantages gathered by sustainability reporting stated in literature:

Table 5: Benefits of Sustainability Reporting / In Literature

Reference	**Description**
Windolph (2013: 5)	Arrangement of business practices
Herzig and Schaltegger (2011: 152)	Enhancing legitimacy, reputation, risk management, and external benchmarking
Aras and Crowther (2009: 279)	Reducing cost of capital and attracting investors
Pojasek (2007: 81)	A means for achieving an organization's vision and mission
Schaltegger, Bennett and Burritt (2006: 4)	Involvement of management and employees in setting sustainability goals for the corporation, collecting data, creating and communicating sustainability information.
Bansal and Clelland (2004: 93)	Providing legitimacy and reducing unsystematic stock market risk
Hart and Milstein (2003: 59)	Value creation for stakeholders
Wagner and Schaltegger (2003: 5-8)	Lowering production costs and enhancing productivity
Figge et.al. (2002: 282-283)	A tool for strategic control of environmental, economic and social performance
Knoepfel (2001: 6)	Creating long-term shareholder value by embracing opportunities and managing risks deriving from ongoing economic, environmental and social developments.
Takala and Pallab (2000: 109)	Reducing negative environmental, social and managerial effects

Source: Composed by the researcher

GRI classifies the benefits of sustainability reporting as internal benefits and external benefits as stated on Table 6:

Table 6: Benefits of Sustainability Reporting / GRI Classification

External Benefits	Mitigating – or reversing – negative environmental, social and governance impacts
	Improving reputation and brand loyalty
	Enabling external stakeholders to understand the organization's true value, and tangible and intangible assets
	Demonstrating how the organization influences, and is influenced by, expectations about sustainable development
Internal Benefits	Increased understanding of risks and opportunities
	Emphasizing the link between financial and non-financial performance
	Influencing long term management strategy and policy, and business plans
	Streamlining processes, reducing costs and improving efficiency
	Benchmarking and assessing sustainability performance with respect to laws, norms, codes, performance standards, and voluntary initiatives
	Avoiding being implicated in publicized environmental, social and governance failures
	Comparing performance internally, and between organizations and sectors

Source: GRI official website

2.2.3.3. Guidelines for Corporate Sustainability Reporting

The most comprehensive attempts to provide an assessment guideline for reporting that presenting corporate sustainability performance and to develop a standard has been carried out by GRI, which has been involved in setting standards for sustainability reporting since the late 1990s with the contribution of more than ninety countries' reporters. GRI guidelines which have been updated in time have been a major source for many organizations that publish corporate sustainability reports. The first GRI guideline, the GRI G1, was developed in 2000. Guidelines prepared by the GRI have been updated over time (2002: GRI G2, 2006: GRI G3, 2011: GRI G3.1), the most up-to-date guideline is GRI G4 which have been in use since 2013. From an application point of view, % 92 of the world's top 250 companies publish sustainability reports and 74 % of them together with many other

organizations have been benefiting from GRI standards (GRI, 2016). Hence, GRI is not only a pioneer in terms of corporate sustainability reporting frameworks, but also presents one of the most recognized and applicable standards in all over the world.

In addition to GRI guidelines, the United Nations Global Compact (UNGC), Integrated Reporting (IR) and Carbon Disclosure Project (CDP) reports are among the main reporting frameworks.

The goal of the UNGC is to create a culture of sustainable development in the business world where fierce competition is taking place and to have a desire for all organizations possessing a shared responsibility within their scope of impact. The UNGC contains ten fundamental and universal principles covering human rights, labor standards, environment and anti-corruption. The UNGC encourages organizations to take action for social purposes by recognizing, supporting and implementing these principles in their business activities in a totally voluntary manner (UN Global Compact, 2016).

The International Finance Corporation (IFC), which was established in 1956 as an entity of the World Bank Group, has acknowledged that sustainability principles are key elements for long-term development. In this context, IFC's risk management approach is integrated with the Sustainability Framework that consists of Policy on Environmental and Social Sustainability, Access to Information Policy and Performance Standards. Policy on Environmental and Social Sustainability is based on IFC's commitments, roles and responsibilities related to environmental and social sustainability (IFC, 2012a). Access to Information Policy implies the accountability of IFC's activities and disclosure obligations (IFC, 2012). Finally, Performance Standards define eight standards that customers must obey during the investment made by IFC (IFC, 2012c). These standards are; assessment and management of environmental and social risks and impacts, labor and working conditions, resource efficiency and pollution prevention, community health, safety, and security, land acquisition and involuntary resettlement, biodiversity conservation and sustainable management of living natural resources, indigenous peoples and cultural heritage (Fleming, 2014).

Another notable reporting framework for corporate sustainability is the CDP, which was launched in 2000 to gather and share information that will enable companies, investors and governments to take measures against climate change

threats. The publication of CDP reports encourages organizations to measure and publish environmental information. In this context, strategies related to greenhouse gas emissions, water use, climate change, water and forest management have been analyzed (CDP, 2017).

The concept of IR arranged by IIRC is the latest developing approach in terms of sustainability reporting initiatives. Integrated reporting enables stakeholder expectations, strategic thinking, value creation and adopts a balanced allocation created value-added in regard to the providing the benefit in business process. In addition, it focuses on providing guidance to stakeholders in terms of future strategies. Basic principles that will be applied in an IR are strategic focus and future orientation, linkage of information, stakeholder relations, materiality, shortness and conciseness, reliability and completeness, consistency and comparability (Humphrey, O'dwyer and Unerman, 201; IIRC, 2013: 5).

According to stated efforts and initiatives, there are many frameworks that can be used to assess corporate sustainability performance. In addition to these guideline frameworks, researches are continuing to determine which set of indicators can be used by organizations in assessing their sustainability performance, to what extent they will report the identified indicators; in other words, to improve the reporting standards of corporate sustainability performance.

2.2.3.4. Assessment Methods of Corporate Sustainability Performance

Sustainability literature indicates that, although researchers agree on that indicators should be set for each of economic, environmental and social dimension to determine sustainability performance, they assume several similar but not exactly the same indicators.

The most frequently emphasized economic indicators can be stated as net sales, financial turnover, the amount of money paid, cost of all purchased goods, services and materials (Skouloudis and Evangelinos, 2009; Gallego, 2006).

In general, the environmental dimension of corporate sustainability focuses on the conservation of natural resources and air and water pollution, energy use, greenhouse gas emissions, (Diesendorf, 2000); biodiversity, renewable and non-renewable sources and fuel usage (AtKisson, 1996) are often asserted indicators.

Furthermore, social dimension of corporate sustainability concerns the welfare healthy standard of living and prosperity of the human beings and the society. According to Lee and Saen (2012), the main focus of social sustainability is human rights and social security. Under these circumstances, indicators such as human and labor rights, equal opportunity, non-discrimination, equal remuneration for women and men, security practices, Freedom of Association, prevention of child labor practices are stated frequently (Gallego, 2006). Callens and Tyteca (1999: 44) made a classification of short-term and long-term indicators for corporate sustainability as shown in Table 7.

Table 7: Corporate Sustainability Indicators

	Short term	**Long term**
Economic aspects	Turnover, value added, output production, resources used as inputs (including recycled products and energy)	Profitability, competitiveness, market shares, product durability; research and development efforts
Social aspects	Employment, salaries, labor intensiveness or productivity, injury risk noise, odour	Welfare, education, availability of (non-) renewable resources (including energy), size (SME vs big), personnel rotation rate
Ecological aspects	Natural resources, wastes, pollution, transportation modes and distances	Global impacts: biodiversity, global warming, acid deposition, landscape, ultimate waste disposal, product recycling ability

Source: Callens, I., & Tyteca, D. 1999. Towards indicators of sustainable development for firms: a productive efficiency perspective. *Ecological Economics*, *28*(1), p: 44.

There are different methods that are also proposed for measuring corporate sustainability performance. One of the most important studies on the measurement of corporate sustainability performance has been developed by Figge et.al. (2002). Researchers have adopted Balanced Scorecard technique by Kaplan and Norton (1996) and associated it to corporate sustainability. Accordingly, three main dimensions of corporate sustainability –namely economic, social and environmental sustainability can be integrated into four dimensions of balanced scorecard –namely finance, customer, internal process, learning and growth (Özçelik, 2013). Another remarkable study by Daub (2007) provides an assessment tool that enables to

examine corporate sustainability reports comparatively. Therefore, on the basis of GRI indicators, the extent of information stated on the corporate sustainability reports has been analyzed and categorized in regard to gradation after evaluation.

Finally, corporate sustainability is a growing field for researchers. On the other hand, organizations engage in sustainability practices and reporting increasingly in parallel with the national and international regulations and growing public awareness. Under these circumstances, strategic impact of corporate sustainability will be discussed in the following section.

3. CHAPTER: ROLE OF CORPORATE SUSTAINABILITY ON STRATEGIC ISSUES

As indicated in the previous chapter, there is an increase in consumer consciousness and public pressure on companies for environmental and social business practices. As a result, many organizations get involved in a decision making process on implementation of sustainable solutions and transform from unsustainable to sustainable growth. Meeting the economic expectations of shareholders together with the environmental and social responsibilities is still under a debate. Some executives believe that efforts for sustainable business practices cause additional costs and damage the economic development potential of the company. On the other hand, some executives recognize the idea that sustainable practices create value, improve organizational motivation, organizational efficiency so that these practices increase economic growth even if they increase the costs at some points.

This chapter shed light to this debate through covering the fundamental topic of strategy literature, the association between the concepts of strategy and corporate sustainability and strategic outcomes of sustainable business practices by presenting theoretical and empirical studies on this matter.

3.1. Concept of Strategy and Strategic Management

There are two approaches about the etymological roots of strategy (Budak ve Budak, 2004: 298). According to first approach, strategy is generated from the word "stratum" in Latin that refers to road, line and river bed (Dinçer, 1998: 6). This assumption makes the concept more general that can be applied to economic, social and political decision making processes. The second approach indicates that, strategy is a military concept and the word is the combination of two words in ancient Greek - namely "stratos" which means army and "ago" that refers to managing, directing (Satı and Işık, 2011: 542). In addition to these, there is one more assumption in regard to military roots which is about ancient Greek General Strategos (Eren, 2010). Accordingly, strategy has been used to explain the military genius of the (Budak ve Budak, 2004: 299).

Generally, strategy in military includes the assessment of the current situation, possibilities, ends and means to preserve national interests, planning,

directing, monitoring and finally evaluating the results of necessary operations. Military strategy is based on victory (Eren, 2010: 2).

From this point of view, strategy in management refers to organizational decisions and actions for value creation, improvement, growth, satisfaction of stakeholder expectations, and other long-term interests of organization within the competitive environment. Hence, strategy in terms of management can be defined as aggregate of result-oriented, long-term, dynamic decisions to achieve organizational goals by examining the competitors' activities (Ülgen and Mirze, 2004: 33). In addition, strategy is also a managerial tool that ensures innovation, improvement and adaptation to the environment, and by the way, controls the changes in the business (De Woot, 1970: 40). Thus, because of the dynamic nature of business, strategy contains both "proactive" (planned, intended) strategy and "adaptive" (reactive) reactions to changing circumstances and unexpected or unforeseen developments (Thompson and Strickland, 1999: 9).

It is recognized that strategy has been studied scientifically since the early 1960s. "Strategy and Structure" by Chandler (1962), "Business Policy: Text and Cases" by Andrews (1965) and "Corporate Strategy" by Ansoff (1965) are accepted as the primary works and fundamental references about strategy in management literature (Barca, 2005: 10).

In general, there is a distinction between strategy levels which is classified as business strategy and corporate strategy (Carpenter and Sanders, 2007). According to Hill and Jones (1989: 124) business strategy focuses on "*how a company can compete effectively in a business or industry*" and this refers to dealing with several strategic alternatives that will enhance competitive advantage and profitability. Thus, business strategy considers which products will be offered in which markets with which competences and deals with generic strategies. On the other hand, corporate strategy deals with growth for sustainable profitability and creating value in the long-run (Carpenter and Sanders, 2007). Thus, decisions about competing in national or international markets through a single business or vertical integration or diversification refer to corporate strategy (Hill and Jones, 1989: 153).

According to Porter (1987: 43) business strategy is a competitive strategy that concerns creating and increasing competitive advantage where the company operates. Besides, he defines corporate strategy as a companywide strategy, and

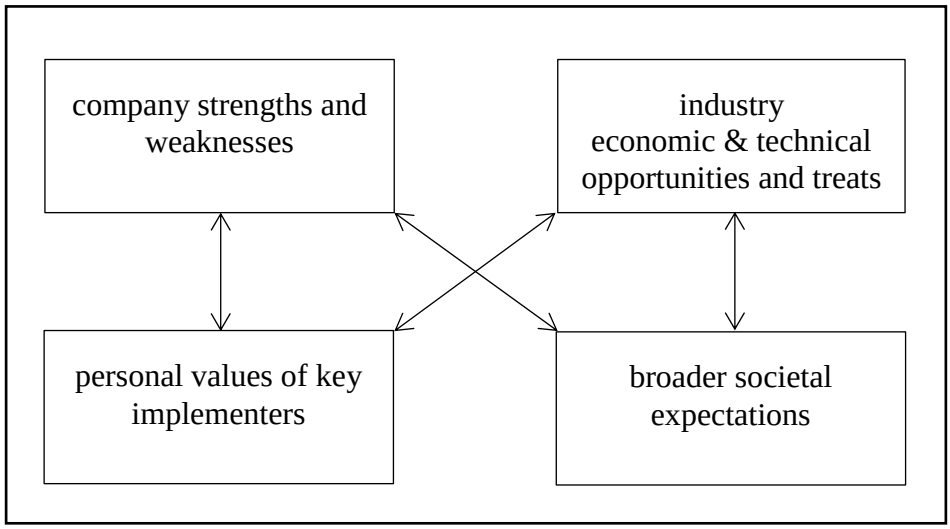
states that corporate strategy should answer two questions. These questions cover the businesses that the corporation will engage in and decisions of headquarters on the arrangement of business units entirely.

Bringing together both business level and corporate level strategies, Thompson and Strickland (1999: 7) describe strategy as follows:

> *"A company's strategy represents management's answers to such gut issues as whether to concentrate on a single business or build a diversified group of businesses, whether to cater to a broad range of customers or focus on a particular market niche, whether to develop a wide or narrow product line, whether to pursue a competitive advantage based on low cost or product superiority or unique organizational capabilities, how to respond to changing buyer preferences, how big a geographic market to try to cover, how to react to new market and competitive conditions, and how to grow the enterprise over the long run"* (Thompson and Strickland, 1999: 7).

In parallel, strategic management focuses on how an organization can arrange overall business activities in order to get and maintain competitive advantage (Teece, Pisano and Shuen, 1997). Therefore, all corporate decisions taken by an organization have more or less a positive or negative effect on the achievement of the ultimate strategic goal of competitive advantage. Moreover, in order to create a unique customer value, strategic trade-offs, in other words the choice of to do and not to do, the preferred and dispensable activities, are required. To do so, Porter (1981: 610) states that organizations can formulate effective strategies on the basis of four main elements including organizational strengths and weaknesses; opportunities and treats in regard with industrial, technical and economic aspects; personal values of key implementers, and broader societal expectations. In other words, organizations should achieve a balance of internal capabilities and values together with external conditions such as industrial, environmental, social and technological developments, and customer expectations to succeed.

Figure 7: Porter's Model of Effective Strategy Formulation



Source: Porter, M. E. 1981. The contributions of industrial organization to strategic management. *Academy of management review*, *6*(4), p: 610.

It is also stated that strategic behavior stems from bounded rationality (Barca, 2005: 28). Bounded rationality as proposed by Herbert Simon in 1978 indicates that human beings have cognitive limitations together with the limitations to access to all required information to behave in homo economicus manner every time. Thus, these limitations are effective in decision making processes while understanding the current situation, existing problem, and generating solutions to overcome the perceived problematical cases. As people are bounded by limits, they can only make bounded rational decisions -namely satisfactory decisions which are good enough (Koçel, 2011: 134).

3.2. Historical Review of Strategic Management

There have been several developments in the world that impacted economic, social and technological aspects of life deeply. These developments inevitably affected decision making processes and business conduct as well (Eren, 2010). As a result, there are periods that differ in terms of main assumptions and suggestions of strategic management thought. Historical review in this study is presented in accordance with the periodization by Barca (2009: 35).

3.2.1. Period of Strategic Planning (1960-1980)

This period has been driven by Harvard School. The first work on which the written strategic thought finds a clear statement within a scientific context is titled as "Strategy and Structure" by Alfred Chandler published in 1962. In this book, Chandler has analyzed how four large-scale enterprises namely General Motors, Sears, Standard Oil of New Jersey and DuPont- have grown (Barca, 2005: 9).

Kenneth R. Andrews leaves his mark on this period with SWOT Analysis that is still famous for business practitioners and academicians. His book "Business Policy: Text and Cases" was published in 1965 and taught as a textbook in Harvard University (Barca, 2005: 9). SWOT Analysis is recognized as an assisting method for strategy formulation (Dyson, 2004: 631). Accordingly, SWOT analysis combines both internal and external appraisal of an organization. To do this, strengths and weaknesses of an organization are specified together with the opportunities and threats in the surrounding environment of the organization. Then, strategy can be built upon the strengths with opportunity exploitation whereas weaknesses are minimized and threats are opposed (Budak and Budak, 2004: 308).

Within the same period, Igor Ansoff's work titled "Corporate Strategy" (1965) is regarded as a primary reference guideline of strategic planning (Barca, 2005: 10). Ansoff distinguishes organizational decisions as strategic decisions, administrative decisions and operational decisions (Eren, 2010: 37). Strategic decisions are generated from strategic planning. Ansoff's strategic planning approach depends on gap analysis. Accordingly, the gap refers to the existing strategic position and desired strategic aims. Hence, strategic planning serves as a tool in order to fill this gap and achieve organizational goals. Sequences of gap analysis (Ansoff, 1965: 25-26) are as follows (Barca, 2009: 37-38):

- Determination of a set of goals aimed for the future,
- Defining the gap or difference between the organization's current position and the foreseen objectives,
- Development of one or more sets of action (strategy) to fill this gap,
- Testing of action sets determined in the previous step in terms of their ability to reduce the gap (accepting an action set in case it significantly closes the gap, otherwise testing new alternatives).

The common feature of strategic planning approaches by Andrews and Ansoff is that they consider the strategy development process based on prediction of future plan. However, when the petroleum crises have been witnessed, it is understood that making strategic plans on prediction is not satisfactory as there are always unforeseen events and uncertainty particularly in the external environment. Under these circumstances, for the situations with high level of uncertainty, a new approach for strategic planning has come into question. This approach is known as scenario planning technique (Barca, 2009: 38). Scenario planning, which has been first used by Royal Dutch/Shell in the early 1970s, presents main trends and uncertainties in detail through eliminating the risk of under-prediction and over-prediction of change and provides a basis in between (Schoemaker, 1995: 25, 27)

In general, studies in this period are normative and they set out the context, scope, principles of strategy (Budak and Budak, 2004: 307).

3.2.2. Period of Competition Strategies (1980-1990)

The most influential figure in this period is Michael E. Porter and his books "Competitive Strategy: Techniques for Analyzing Industries and Competitors" published in 1980 and "Competitive Advantage: Creating and Sustaining Superior Performance" published in 1985. Studies in this period have focused mainly on positioning strategy rather than on strategic planning. Thus, main interest is systematic analysis of competition dynamics and to determine the conditions of positioning to be competitive in the market place. Thus, the primary contribution of the studies in this period is not only to demonstrate how market analysis should be done in a systematic way with an expanded concept of competition but also to advocate approaches to how businesses should take competitive positions against market forces in order to be successful. For this reason, studies of this period are identified as Positioning School. (Savran, et.al., 2003: 80-81).

Porter described the strategy as a broad perspective on how to compete against the competition of more business rather than a plan. Thus, contrary to the previous strategic understanding of 1960s-1980s that identified with the concept of the strategic plan, the concept of competition has started to be taken into consideration, and the strategy has started to be examined with a new understanding as "competition strategy" (Barca, 2009: 41). Porter's contributions to strategy

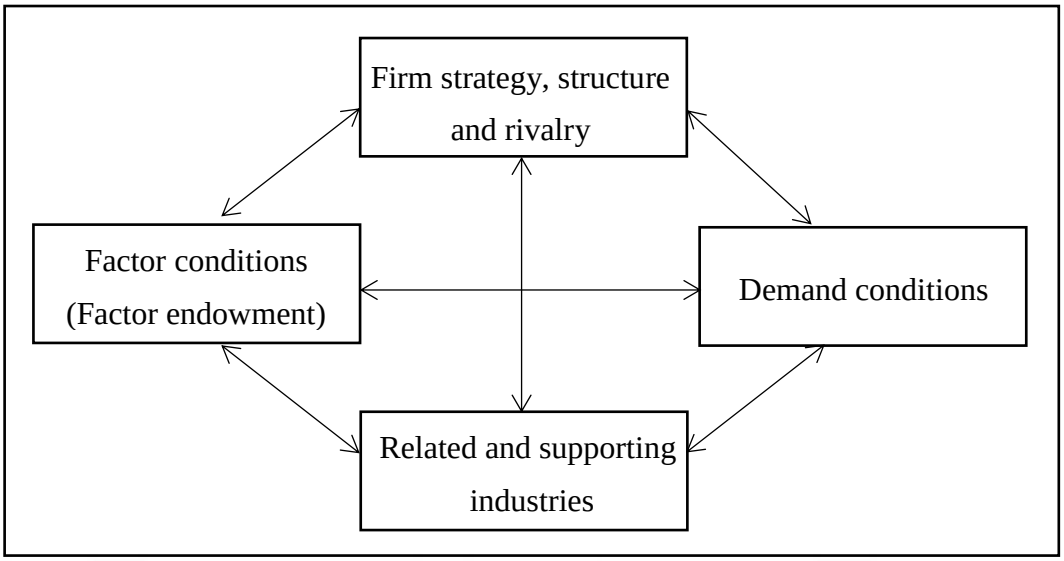
literature are performed at national (Diamond Model), industrial (Five Forces) and organizational level (Generic Strategies) analysis.

3.2.2.1. Diamond Model

Porter (1991) states that regional or national environment and their characteristics influence competitive advantages of nations. In this respect, there are four interrelated factors that influence competition among countries or regions (Porter, 1991: 112):

- Firm strategy, structure and rivalry: National features influence organizational culture, administrative and managerial practices. Moreover, the presence of a national competitive market encourages organizations to be more creative and innovative in order to make difference among rivals. This leads to a positive dynamism in the national market, and companies within a dynamic market have more chance in international competition arena.
- Factor conditions (Factor endowment): Specialized factors that are difficult to duplicate or immobile such as climate, natural resources, skilled labor have positive impact on competitiveness.
- Demand conditions: High demand stimulates improvement on the goods and services offered by the companies at national level. Then, these companies have an advantage to meet customer satisfaction in anywhere else. In other words, a company can utilize the learning affect in home market when competing in foreign markets.
- Related and supporting industries: Home-based suppliers and related industries can stimulate many industries. For example, Italy owes its success on jewelry to its manufacturers of jewelry making machinery.

Figure 8: Determinants of National Competitive Advantage



Source: Porter, M. E. 1991. Towards a dynamic theory of strategy. *Strategic management journal*, *12*(Special Issue), p: 111.

In addition to these factors, Porter (1991) underlines the impact of government and chance as well. For instance, the discovery of petroleum in the Norwegian Sea is by chance, and leads to an important source of national wealth. Finally, governmental regulations, financing and investment policies can influence competitive conditions positively or negatively.

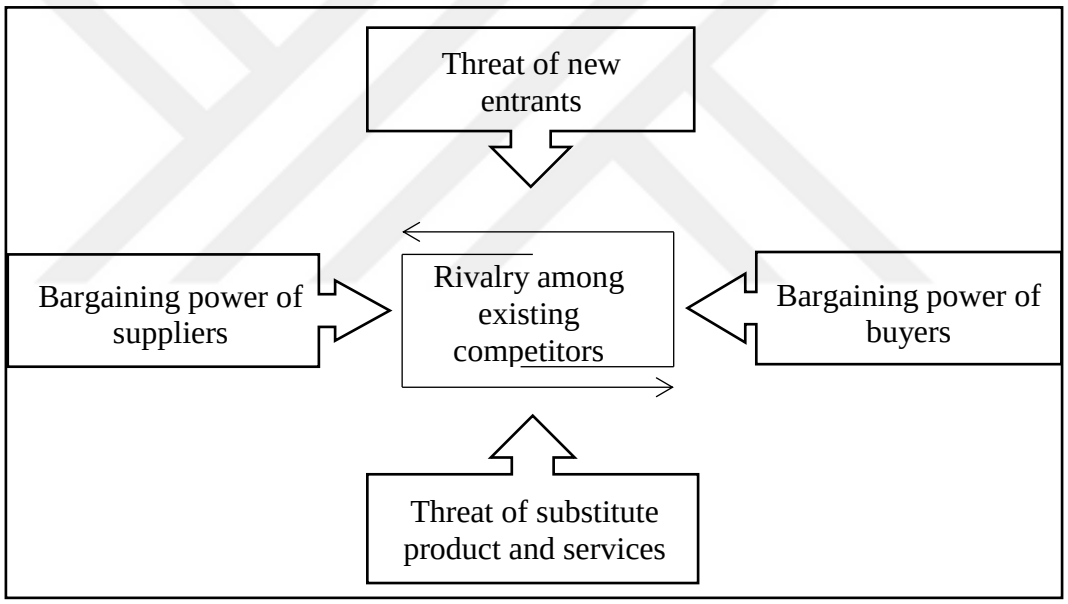
3.2.2.2. Five Forces

In strategic terms, the business environment must be understood as the environment or sector within which the business competes. By the way, he points to industry effect on positioning and the importance of industry structure on competitive advantage. Hence, five key drivers determine industry profitability while they influence costs, prices and required investment. This framework can be applied to entire industry, to a strategic group or to a company (Porter, 1991: 100):

- Threat of new entrants: Potential competitors generate risks for the existing companies in the industry. However, threat of new entrants is affected by the extent of barriers of entry such as economies of scale, product differentiation, brand loyalty, or capital requirements for the investment.
- Threat of substitutes: This threat can be influenced by switching costs among substitutes, price advantages of substitutes or buyer propensity for substitutes.

- Bargaining power of suppliers: In case of unique inputs are required for production, supplier concentration or absence of substitute inputs, suppliers have bargaining power in the industry.
- Bargaining power of buyers: Both final consumers and also industrial consumers should be taken into interest. This factor is affected by buyer volume, price sensitivity, buyer impact on quality and performance, product differences, buyer information about the industry.
- Rivalry among existing competitors: Within this framework, existing rivals have relatively more attractive positions concerning their competitive advantages as a result of their choice among generic strategies.

Figure 9: Five Forces Model: Key Drivers



Source: Porter, M. E. 1991. Towards a dynamic theory of strategy. *Strategic management journal*, *12*(Special Issue), p: 101.

3.2.2.3. Generic Strategies

Following the analysis of five forces, organizations are recommended to position themselves in order to avoid from threats, and manage other influential factors on competitive advantage. In order to be preferred among competitors, positioning is formulated on the basis of generic competitive strategies by Porter through three different alternatives including cost leadership strategy, differentiation strategy or focus strategy (Barca, 2009: 43).

Companies that pursue cost leadership strategy aim at outperforming competitors by offering goods and services at a lower price than the competitors do. In order to manage this and decrease production costs, manufacturing competence and material management are significant (Hill and Jones, 1989: 128-129). The advantages of this strategy can be understood with five forces lenses. On the other side, when rapid changing customer expectations and diversity of customer wants are taken into account, there can be some problems in terms of meeting customer demands. Another risk is the possibility of the assumption that competitors can also be able to find ways to decrease costs and prices. This situation generates the threat of losing cost leadership and competitive advantage (Eren, 2010: 262).

In addition, differentiation strategy aims at making the products or services offered to the market to be perceived as unique by the customers. A differentiated product or service is worth paying for high price for the buyers so that a differentiated company can sell its products or services with a premium price. There are several sources of differentiation including quality, design, function, prestige, technological competence, and after sales services. Primary advantage of this strategy is associated with brand loyalty which is accepted as an important intangible asset (Hill and Jones, 1989: 132). However, differentiation strategy can cause an increase on total manufacturing costs. Although customers are likely to pay for more money for unique features of goods and services, it is vital to maintain this perceived uniqueness in the long run taking into account changing customer expectations. In order to pursue preferableness, companies that follow differentiation strategy should focus on continuous improvement and novelty, and be aware of target market dynamics and competitors' activities (Eren, 2010: 267).

Finally, focus strategy has a significant difference from cost leadership and differentiation strategy. This difference is related with target market. While cost leadership and differentiation strategies are built upon a broad cross section of customers, focus strategy is structured for a narrow customer group or segment. A company may prefer either serving its products with low cost strategy or with differentiation in regard with the demands of market segment (Thompson and Strickland, 1999: 154). Focus strategy refers to a kind of specialization and as a result, the company may build close relationships with its customers and then takes the advantages of customer loyalty. However, by following this strategy, a company limits itself in terms of economies of scale, and constraints can stem from focusing

on a narrow part of an entire market. In other worlds, a focuser do not manufacture in the same volume as other companies having chosen a broad market segment. As manufacturing volume decreases, the requirement for materials of production gets lower, then the bargaining power will be in the hands of suppliers (Hill and Jones, 1989: 134-135). In order to manage the cost advantages of large scale competitors, a focuser should adopt innovation and change, and if the market segment gets under threat, it should be able to move quickly to other market segments (Eren, 2010: 274).

It is also underlined about generic strategies that each of the strategy presents an alternative choice for a company, and no company should follow more than one generic strategy at the same time. This is because of the fact that, the ultimate aim of each generic strategy necessitates different methods and processes at business levels and a choice among alternatives is serious. Otherwise, there will be a clash of strategic plans and the organization will be "*stuck in the middle*" (Hill and Jones, 1989: 136). In other words, the company which desires to be successful in two strategies will be unsuccessful in both, and will lose competitive advantage.

3.2.3. Period of Competence Based Strategies (After 1990- Until Today)

Following the period of building a strategy upon the market positioning against the impact of external five forces, from 1990s, internal sources and competencies have begun to be put forward as the basis upon which the strategy should be built (Barca, 2009: 46). Thereby, resource based view, as explained in previous chapter, has popularized in this period expressing the importance of valuable, rare, inimitable and unsubstitutable resources for sustaining competitive advantage and strategic posture of organizations (Barney, 1991).

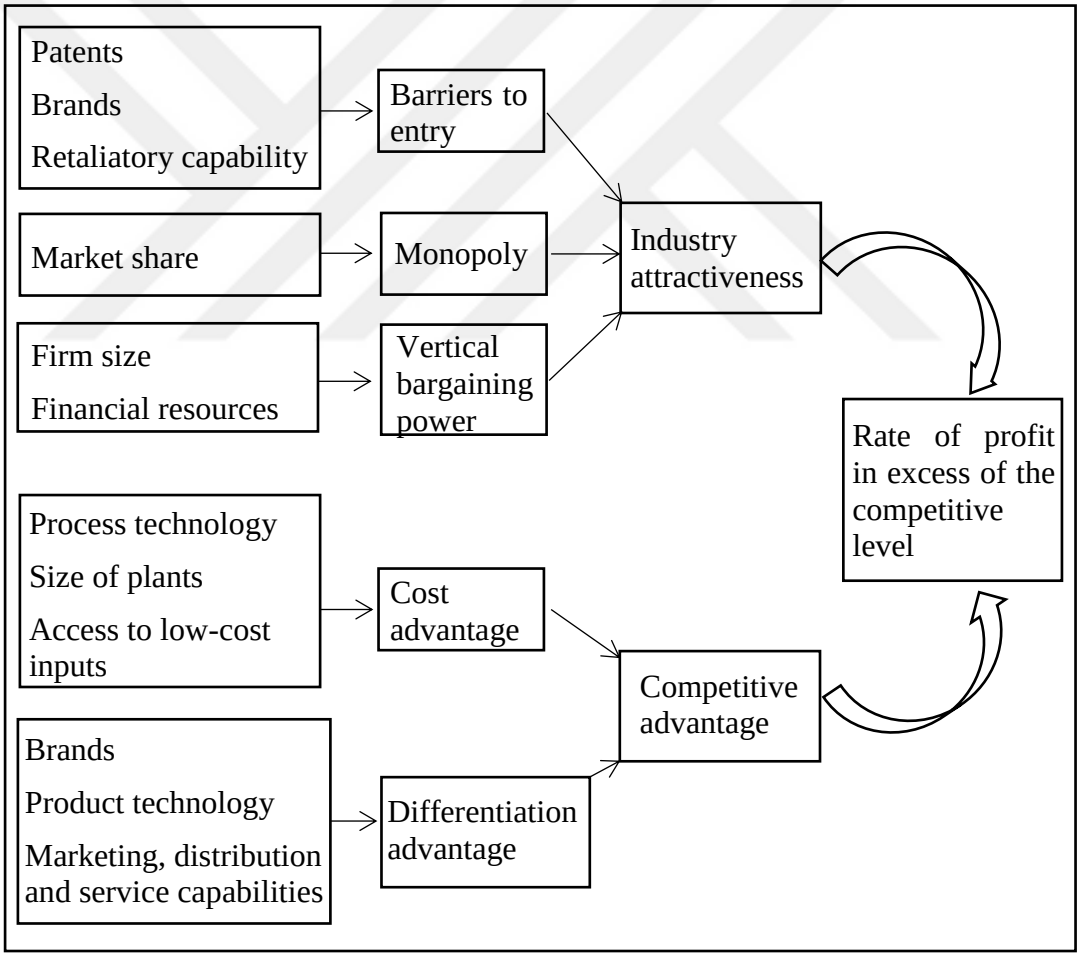
Strategy implementation process on the basis of resourced based view is explained as follows (Grant, 1991: 115):

- Resources: Identification and classification of resources together with the appraisal of strengths, weaknesses and opportunities for better utilization of resources than competitors.
- Capabilities: Identification of organizational capabilities in regard with their effectiveness and complexity.

- Competitive advantage: Appraisal of resources and capabilities in terms of their potential for sustainable competitive advantage and on returns
- Strategy: Selection of the best strategy that exploits the organizational resources and capabilities relative to external opportunities.
- Assessment: Identification of resource gaps that need to be fulfilled, and then investing in replenishing, augmenting and upgrading the organizational resource base.

Accordingly, impact of useful resources and capabilities on profitability of a company can be illustrated as in Figure 10 (Grant, 1991: 115):

Figure 10: Resources As The Basis For Profitability



Source: Grant, R. M. 1991. The resource-based theory of competitive advantage: implications for strategy formulation. *California management review*, *33*(3), p: 115.

Resource-based view continued to develop in 1990s and the article titled "The Core Competence of the Corporation" by Hamel and Prahalad (1990) has an influential impact on academics and practitioners. Since then, the concept of core competence has begun to take attention overwhelmingly (Javidan, 1998). This approach indicates that competitive advantage is embedded in core competencies that an organization possesses. A core competence can be identified by providing "access to potential markets", its "contribution to perceived consumer beliefs of the end product" and "difficulty for competitors to imitate" and they can be built and developed within the organization. Core competencies can be generated from several sources, ranging from communication to innovative products of an organization (Hamel and Prahalad, 1990: 83-84).

Strategic understanding based on core competencies is contributed to explanation of the cause of profit differences. Accordingly, both sectoral differences and organizational differences even in the same industry can generate profit differences because of the organizational competencies. This new approach is a milestone for the development of strategic thinking. Thus, the answer in response to the difference of competitiveness and success among companies has shifted from external industrial structure to internal resources, capabilities and competencies (Barca, 2009: 50).

3.3. Association Between Corporate Sustainability and Strategic Outcomes

One of the most influential figures in the world is Adam Smith whose philosophical and economic theories developed in the 18th century are still analyzed and commented. Smith developed his ethical, philosophical and moral views, and presented them by his work titled "Theory of Moral Sentiments (1759). After then, he published his famous work titled "The Wealth of Nations" (1976). This book pointing to modern economic theory together with a philosophical aspect is also the book which makes him most often known and remembered (Muscato, n.d.).

Besides his views on free trade economics, he expresses that moral sentiments serve as moral compass in every aspect of individuals even at work place. To Smith, a company cannot be considered as an entity independent of the individuals working within it, and individuals are embedded in broader social frameworks such as local community or society. Therefore, social and economic

aspects should be aligned with each other and developed together (Gonin, 2015: 221). In other words, there is a moral and profitable side in the capitalist order that every company should keep in balance. Organizational interests must be softened by ethical values.

Literature states that there is a sustainability debate for business professionals. Accordingly, some executives perceive sustainability as moral or regulatory obligations. Moreover, some other executives believe that sustainable practices generate additional costs. Besides, for some others, being sustainable creates opportunities in terms of new products, new markets or improving brand value and the legitimacy of the company. For those, sustainability means enhancing revenues and market share (Hart and Milstein, 2003: 56).

Under these circumstances, it is possible to examine the strategic outcomes resulted by the adoption of corporate sustainability principles from both ethical and financial perspectives.

3.3.1. Corporate Sustainability and Business Ethics

Starting from 1980s, ethics and accountability have increasingly started to be taken into consideration in stakeholder relations. Particularly, in case of a public crisis, both of them are significant tools in order to overcome the crisis and restore confidence. These interrelated concepts are two different forms of control aiming at improving responsibility of individuals and organizations. Ethics refer to internal locus of control in terms of individual obligations whereas accountability stems from external control meaning that the right of an individual or an organization to explain and respond due to the performed activities to another individual or organization outside his / her own. In this regard, accountability can be classified as administrative, legal, political, organizational, or ethical accountability. (Eryılmaz and Biricikoğlu, 19-21).

In the same vein, Colle and Gonella (2002) states that companies undertake two main approaches such as employee participation, stakeholder involvement or communication strategies in order to increase customer loyalty and market share. These approaches can be classified as internally and externally approaches as explained below (De Colle and Gonella, 2002: 87):

- Internally approaches: They are related with ethical behaviors. The most common of them is a code of ethics by which an organization determines and declares its commitment to basic values and fundamental ethical principles in the stakeholder relations.
- Externally approaches: They are related with social issues. In this regard, accountability and reporting are the most common concepts. This approach is needed in order to understand and communicate with the external stakeholders.

The concepts of corporate sustainability and sustainability reporting integrate the internally and externally focused approaches stated above. While corporate sustainability stems from the fundamental ethical principles of an organization in doing business with its main stakeholder groups including suppliers, employees, customers, competitors; corporate sustainability reporting presents a detailed documentation for accountability about what the organization has performed during a given period. Hence, corporate sustainability thought and practices play important role on ethics and accountability.

Another key issue related with the concept of business ethics is ethical investment. Ethical investment refers to socially responsible investment taking into account of social considerations, values together with economic concerns while making a decision on where to invest. In other words, financial return which is the primary purpose of the investment is not the only criterion to invest ethically. Ethical investment is undoubtedly aimed at making money, but the way of doing it is counted (Michelson et. al., 2004). Thus, ethical investors focus on ethical manner of company's operations, and make investment decisions accordingly (Williams, 1999). However, the perception about that an ethical investor does only socially responsible investments, does not reflect the truth. Contrarily, ethical investors invest in conventional funds as well. Hence, there is no trade off between ethical principles and expected financial interests. In other words, ethical investment is an alternative investment field among several risk-return profiles, and unlike other standardized investment options, it generates psychic income (Michelson et. al., 2004).

In decision making process of ethical investment, potential investors monitor company's business practices, organizational activities and performance on economic, social and environmental concerns. Corporate sustainability reports can be

recognized as a compass of company screen shot. In a study on sustainability reporting, the number of corporate sustainability reports published between 2006 and 2016 in Latin America, North America, Africa and the Middle East, Europe and Asia Pacific countries were examined (Bartel et.al., 2016). Researchers revealed that, while 60 sustainability reports were published in 2006, this figure reached 383 in 2016. In addition, it is stated that especially the stock exchanges demand sustainability reports. This is because of the fact that stock exchanges present all information on corporate sustainability reports for the use of investors, and companies use these reports in order to attract ethical investors more easily.

3.3.2. The Impact Corporate Sustainability Practices on Financial Performance

It is believed that, when the production and sales of goods and services increase, there will be an increase in revenues which leads to growth. A contradiction occurs at that point, because sustainable development requires an economic growth while preserving the essential factors of production including environmental and social resources. Development, unlike growth, does not only related with higher rates of production and sales revenues; it also related with social and natural capital such as quality, labor rights, income distribution, justice, health, conservation of natural resources, energy use and so on (Altuntaş and Türker, 2012). Moreover, it might also be assumed that social and environmental sustainability practices create additional costs for organizations, and increasing costs generate a contradictory situation with regard to economic sustainability. Thus, balancing all three dimensions of corporate sustainability is a matter that needs to be specifically addressed and managed. In both assumptions, economic interests clash with environmental and social concerns. This debate is one of the most discussed and studied ongoing questionings both in sustainability literature and among business professionals.

In order to shed light on this debate, management literature is fruitful. Among these studies, some of them primarily focus on the relationship between social and financial performance (e.g. Simpson and Kohers, 2002) and some of them aimed at investigating the association between environmental and financial performance (e.g. Halme and Niskanen, 2001). Besides these, another group of study also examines the collective impact of social and environmental aspects of sustainability on financial

performance (Lu and Taylor, 2016). Table 8 provides a listing of the research investigates how environmentally focused organizational practices affect financial performance.

Table 8: Studies focused on the relationship between environmentally responsible practices and performance

Reference	Research Topic	Findings
Halme and Niskanen (2001)	The relationship between environmental responsiveness and shareholder value	Environmental investment generates an instantaneous negative stock market reaction and the extent of reaction is inversely proportional to the extent of environmental investment. However, this negative effect is recovered rapidly and a permanent positive effect is observed.
Carter, Kale, and Grimm (2000)	The relationship between environmental purchasing on corporate performance (CP)	Environmental purchasing is significantly related to both net income and cost of goods sold.
Hart and Ahuja (1996)	The relationship between environmentally responsible initiations and CFP	It is worth paying to be green. A reduction in emissions through pollution prevention leads to increase in efficiency, and money savings, then provides companies cost advantage.
Klassen and McLaughlin (1996)	The relationship between environment management and CFP	There is a strong positive linkage between environmental management and perceived future financial performance.
Bonifant, Arnold, and Long (1995)	The relationship between environmental performance and CP	There is a positive linkage between environmentally responsible innovative opportunities and gaining competitive advantage.
Dechant and Altman (1994)	The relationship between environmental performance and competitive advantage	Environmental performance is positively related with higher overall business performance and competitive advantage in terms of a “clean” reputation, giving opportunities to introduce new products, processes and to explore new markets.

Source: Composed by the researcher

As presented on Table 8, articles reviewed for this study indicate that environmental management has positively related to financial outcomes. This finding is contradictory with the assumption that environmental practices cause extra

expenses for the company which in turn negatively affect the profitability. However, reviewed articles support the assumption that improved environmental performance promotes cost savings which in turn increase financial performance (Schaltegger and Synnestvedt, 2002: 339). According to the same study, the reasons of why researchers cannot reach a consensus with regard to the direction of the relationship between corporate environmental and financial performance are the discrepancies in the theoretical framework, differences with respect to the country where the research was conducted including environmental legislation, cultural structure, consumer behavior, and industry or company size differences.

When the research conducted on linkages is analyzed, Griffin and Mahon's (1997) work presents a valuable literature review on the relationship between social and financial performance. This work has been updated and extended by Roman, Hayibor and Agle (1999). Besides, Schaltegger and Synnestvedt (2002) examine the studies investigate the association between environmental and economic performance. In addition, Salzmann, Ionescu-Somers and Steger (2005) provide a comprehensive review about the relationship of corporate social or environmental performance and financial performance. Furthermore, Wagner and Schaltegger (2003) present an overview on the relationship between corporate sustainability performance, business competitiveness and economic success.

Furthermore, Halme and Niskanen's (2001) work is extremely remarkable in the context of the debate in point. In this study, impact of environmental investments on the value of stakeholders has been investigated. The findings revealed that in case of an environmental investment, the stock market responds a sudden and negative reaction, and this response is directly proportional to the size of the investment. However, corporate activities have a permanent impact on corporate value, so that after the instantaneous market reaction, stock prices get higher and recover within one week to the level where they were before the investment. Hence, it may be concluded that although there might be to a quick price decrease initially, environmental investments generate a positive impact on corporate image which is significant for investors and financial authorities to re-evaluate, and revise the expectations of the future value of the investment (Halme and Niskanen, 2001; 212).

Imada (2008) considers environmental sustainability dimension within the context of change management. Accordingly, corporate environmental sustainability

efforts are essential. They prevent organizations from inertia and provide homeostatis which creates comfort and familiarity. It is therefore a necessity for businesses to survive.

Table 9 presents a listing of the research that constitutes social responsiveness, corporate social responsibility (CSR) or corporate social performance as independent variable, and analyzes its relationship with corporate financial performance (CFP).

Table 9: Studies focused on the relationship between socially responsible practices and performance

Reference	Research Topic	Findings
Barnett (2016)	The relationship between CSR and the interests of businesses	Companies gain stakeholder value through CSR.
Dhaliwal et.al. (2011)	The relationship between CSR and cost of equity capital	Companies with superior CSR performance attract institutional investors and lead to a reduction in the cost of equity capital.
Becchetti, Di Giacomo and Pinnacchio (2008)	The association between involvement and continuity in the Domini social index and CFP	Results provide partial support for the positive association in case large companies with high R&D investment are excluded from the sample.
López, Garcia and Rodriguez (2007)	The relationship between CSR and corporate performance during a specific period	CSR practices generate a short-term negative impact on performance during the first years in which they are applied. Researchers also state that longer term analysis is required.
Simpson and Kohers (2002)	The relationship between corporate social performance and financial performance	The study based on data from a sample of commercial banks presents an empirical support for the positive association between social performance and financial performance.
McWilliams and Siegel (2001)	The relationship between CSR and profit	The ideal level of CSR which is determined by cost and benefit analysis has a positive link to profit maximization.
Orlitzky and Benjamin (2001)	The relationship between corporate social performance and financial performance	Higher corporate social performance decreases the financial risks. In addition, corporate social performance is more strongly correlated with measures of market risk than measures of accounting risk.

Reference	Research Topic	Findings
Waddock and Graves (1997)	The relationship between corporate social performance and financial performance	Corporate social performance is positively related with financial performance.
Aupperle, Carroll and Hatfield (1985)	The relationship between CSR and profitability	No correlation has been found. The study cannot be able to support the assumed relationship.
Arlow and Gannon (1982).	The relationship between social responsiveness and economic performance	No correlation has been found. Economic performance, at least in the short run, is not directly associated with social responsiveness (neither positively nor negatively).

Source: Composed by the researcher

As presented in Table 9, findings of the research concerning the association between corporate social practices and financial outcomes have inconsistencies. This finding supports the results of the study by Wood and Jones (1995: 229) indicating that larger number of research conducted upon the association between corporate social performance and corporate financial performance reveal a positive correlation whereas fewer number of studies show no theoretical or inconclusive relationship, or a negative correlation. There are several reasons of why there is not a consensus on this topic. As explained by Griffin and Mahon (1997: 7), conceptual and methodological differences may generate the conflicting results. Nonetheless, the number of studies indicating a positive relationship between social and financial performance is higher in terms of number. For instance, the work by Pava and Krausz (1996) state that among twenty one studies about the association between social performance and corporate financial performance that were published between 1972-1992, twelve studies show a positive relationship while only one study presents a negative correlation and eight studies resulted with no correlation.

Moskowitz (1972) who edits Business and Society Review suggests that social responsible companies will have higher rate of return on their common stock. Then, in order to validate this assumption he chooses fourteen companies which he believes that they are more socially responsible, and publishes their names on the journal. After stating that, these stocks appreciate 7.28 % whereas Dow Jones

Industrials' average is smaller than this amount. Hence, Moskowitz interpreted these results as a validation of his assumption.

Table 10 presents a listing of the research reviewed focusing on the relationship between corporate sustainability performance (CSP) and corporate financial performance (CFP).

Table 10: Studies focused on the relationship between corporate sustainability practices and performance

Reference	Research Topic	Findings
Lu and Taylor (2016)	The relationship between CSP and CFP	Especially in the long run, CSP likely increases CFP. Compared to social sustainability, environmental sustainability contributes to the positive CSP-CFP relationship.
Lourenço et.al. (2012)	The relationship between CSP and market value of equity	Investors value CSP. Large profitable firms with low level of CSP face greater public scrutiny and pressures from stakeholders and if they do not address CSP, they are penalized by the market.
Pätäri et.al. (2012)	The relationship between corporate sustainability performance (CSP) and corporate financial performance (CFP) in energy sector	Data analyzed in this study were gathered in 2000, 2005 and 2009. There is a positive relationship between the analyzed variables. Sustainability driven energy companies of Dow Jones Sustainability Index present better performance in controlling their costs and profit generation than other companies that are not included in the sustainability indexes.
Ameer and Othman (2012)	The relationship between sustainability practices and CFP	Sustainable companies provide higher financial performance in terms of sales, growth, return on assets, profit before taxation, and cash flows from operations
Artiach et.al. (2010)	Factors that drive high levels of CSP	Leading CSP companies are the ones that are larger, have higher levels of growth and a higher return on equity than conventional companies.
Lo and Sheu (2007)	The relationship between corporate sustainability and market value	CSP has a strong impact on sales growth. Being sustainable generates an increase in company's value. In addition, investors value CSP. In other words, companies with remarkable sustainable development strategies are more likely to be rewarded

Reference	Research Topic	Findings
		by investors with a higher valuation in financial markets.
Thorpe and Prakash-Mani (2003)	The relationship between CSP and CFP in emerging markets	Sustainability practices lead to resource growth, market access, cost savings, better risk management, development of human capital, reputation building, and increase in brand value.
Dyllick and Hockerts (2002)	The impact of corporate sustainability on the difference between book value and market value	Environmental sustainability is related with natural capital and social sustainability is related with social capital. The difference between the book value and the market value arises from these types capital. Hence, sustainability strategy aims to increase market value from the resource-based approach perspective.

Source: Composed by the researcher

Reviewed research point to that corporate sustainability performance positively affects financial outcomes though several ways. With regard to this, higher financial performance, sales growth, higher return on assets, higher cash flows from operations (Ameer and Othman, 2012: 61), higher levels of growth and a higher, return on equity (Artiach et.al., 2010: 31), and value creation (Lo and Sheu, 2007) are highlighted.

Furthermore, Lo and Shen (2007) found empirical evidence that corporate sustainability is a value increasing strategy. According to their work with 349 companies, nine different control variables including company size, financial market access, return on investment, return on assets, increase in sales, increase in investments, industrial diversity, credit rating and industry effect were used in the results obtained by the panel regression method. In other words, the explanatory effect of the control variables on the difference between the book value and the market value was determined first and then the sustainability was determined to be independent of these control variables on the firm value.

The work by Thorpe and Prakash-Mani (2003) points out that CSP positively correlated with corporate reputation. Aras and Crowther (2010) state that sustainability is one of the four basic elements that promotes the maintenance of

competitive advantage, along with profitability, reputation, and good governance. Moreover, Roberts and Dowling (2002) revealed that positive corporate reputation creates value through contributing to intangible assets, and therefore, a strong corporate reputation and financial performance are positively correlated with.

4. CHAPTER: DRIVERS OF CORPORATE SUSTAINABILITY PRACTICES AND REPORTING

As expressed in previous chapters, financial reporting, which has first become mandatory for publicly owned enterprises as a result of legal reforms under the Securities Act approved in the United States in 1933, has begun to fail to meet stakeholders' expectations due to the global economic developments, developing technology, rising access to information, increasing consumer awareness, ecological awareness, demand for development of social welfare. This has made it possible for organizations to understand that they should inform all stakeholder groups in more detail about the financial, environmental and social impacts of their business activities. As a result, from the first definition of the concept of sustainable development in Our Common Future Report in 1987 to the present time, sustainability principles are progressively increasing their influence at national, regional and organizational level. Corporate sustainability has begun to be regarded as a strategic goal for most of the institutions and companies.

Under these circumstances, corporate sustainability stands for socially and environmentally responsible business processes and practices, rational financial outcomes and durable overall corporate performance. In addition to internal contributions of corporate sustainability practices, taking into account of corporate accountability requirements, presenting sustainability performance and become it is known by all stakeholders seem to be significant as well. In other words, accurate assessment of corporate sustainability performance, corporate sustainability reporting, and public disclosure are crucial as well as sustainability efforts within the organizations. Hence, there has been a growing interest and awareness of evaluating and reporting corporate sustainability performance in public. For instance, sustainability reporting activities of S&P 500 Index companies from 2011 to 2015 have been investigated by The Government and Accountability Institute. The results indicate that reporting among the 500 companies increased from 20% in 2011 to 81% in 2015 (Bulldog Reporter, 2016).

Compatible with the stakeholder theory, it may be assumed that due to the rising public awareness on social and environmental concerns, stakeholders' demands and expectations for sustainable practices and accountability have grown as well and resulted with this rapid rise presented by this analysis. Thus, increasing

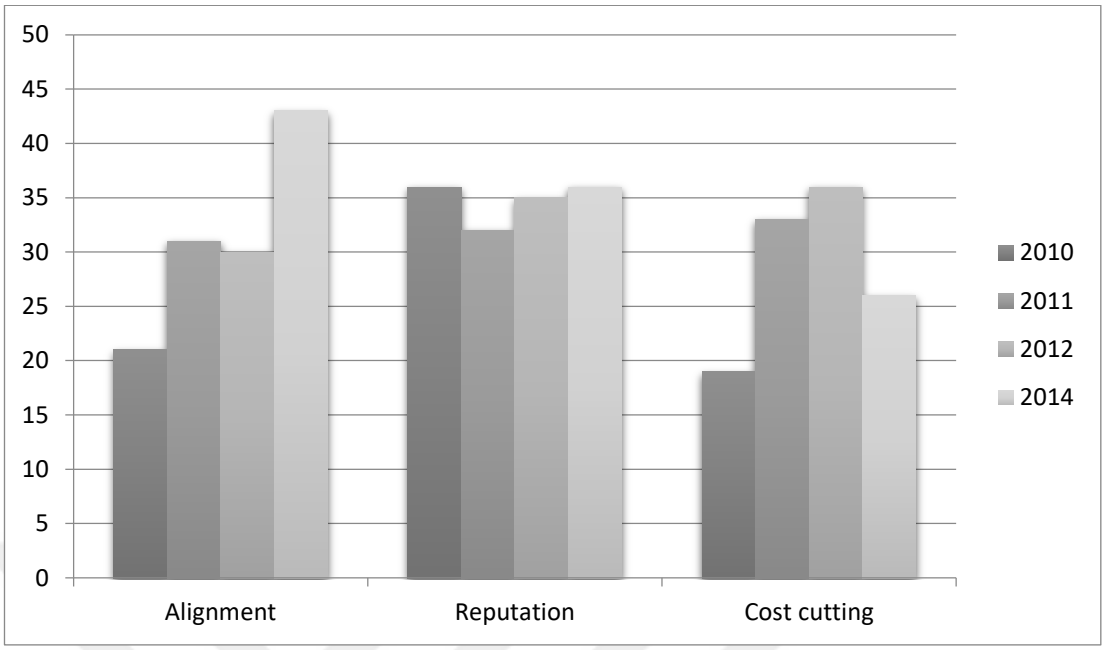
number of companies is getting involved and investing in business practices that are more sustainable. Therefore, meeting stakeholder demands and improving stakeholder relations (Waddock and Graves, 1997) might be a driving force of transformation from conventional to sustainable understanding.

However, the primary motivations behind engaging in corporate sustainability practices and reporting are still blur. Literature points to several reasons that ground the corporate sustainability thinking and implementation. Among them "government regulations" and "desire to avoid significant legal and financial liabilities" (Dechant and Altman, 1994: 7) are stated as important factors that encourage companies to engage in environmentally sustainable organizational activities. In addition, Russo and Fouts (1997) state that from the perspective of the resource-based approach, organizations can reduce operational and process costs if they protect and enhance their technological, environmental, organizational and human resources. As it is well known, reducing costs generate positive financial outcomes. Hence, another catalyst for corporate sustainable strategies points out decreasing organizational costs.

Lozano (2009: 171) distinguishes motivating factors for corporate sustainability as internal and external drivers. According to the data gathered from case studies through interviews, leadership is revealed as the main internal driver. Among other internal drivers, employees' shared values, cost saving, organizational culture, moral and ethical obligations are stated. Furthermore, regulations and legislations are expressed as the most recognized external driver and sequenced by growing stakeholder awareness, customer demands and expectations, environmental and social crises.

In order to explore how companies manage corporate sustainability, Mc Kinsey, the well-known global management consulting company, has conducted four surveys to business executives in the period from 2010 to 2014 (McKinsey, 2010; McKinsey, 2014). Results indicate that the main drivers that encourage companies to engage in sustainability are (1) alignment with company's business goals, mission or values, (2) building, maintaining or improving corporate reputation, (3) improving organizational efficiency and lowering costs.

Figure 11: Primary Reasons for Corporate Sustainability



Source: McKinsey. 2014. Sustainability's strategic worth: McKinsey Global Survey results.

Furthermore, Mc Kinsey Global survey results also revealed other significant catalyzers for corporate sustainability (McKinsey, 2010; McKinsey, 2014):

- Meeting customer expectations
- New growth opportunities (e.g. new markets, products)
- Strengthening competitive position
- Leadership's personal interest
- Regulatory risk
- Attracting, motivating, and retaining talented employees
- Meeting the expectations of distributers, retailers, and others
- Pressure from NGOs

On the basis of empirical and theoretical implications of previous research, it might be concluded that overall corporate sustainability practices and corporate sustainability dimensions are positively related to business performance. As a result, companies are recognizing the significance and the necessity of corporate sustainability initiatives in order to reap the benefits of being a sustainable company. In addition, the prioritization and guidance of the leader in an organization, and legal

and legislative obligations direct to sustainable practices as well. However, both international and national literature are unable to present an empirical ground for a comprehensive scheme that identifies the key drivers for corporate sustainability. Moreover, there is no previous study that aimed to explore the propensity of changing patterns with regard to drivers from the past to the future. In order to fill this gap, this study aimed at (1) exploring the existing drivers of corporate sustainability, (2) if there is, the shift from the past, and (3) evolving tendencies for the future. In this framework, contributing causes that are likely to lead to corporate sustainability have been derived from the previous literature and will be examined from this section.

4.1. Value Creation

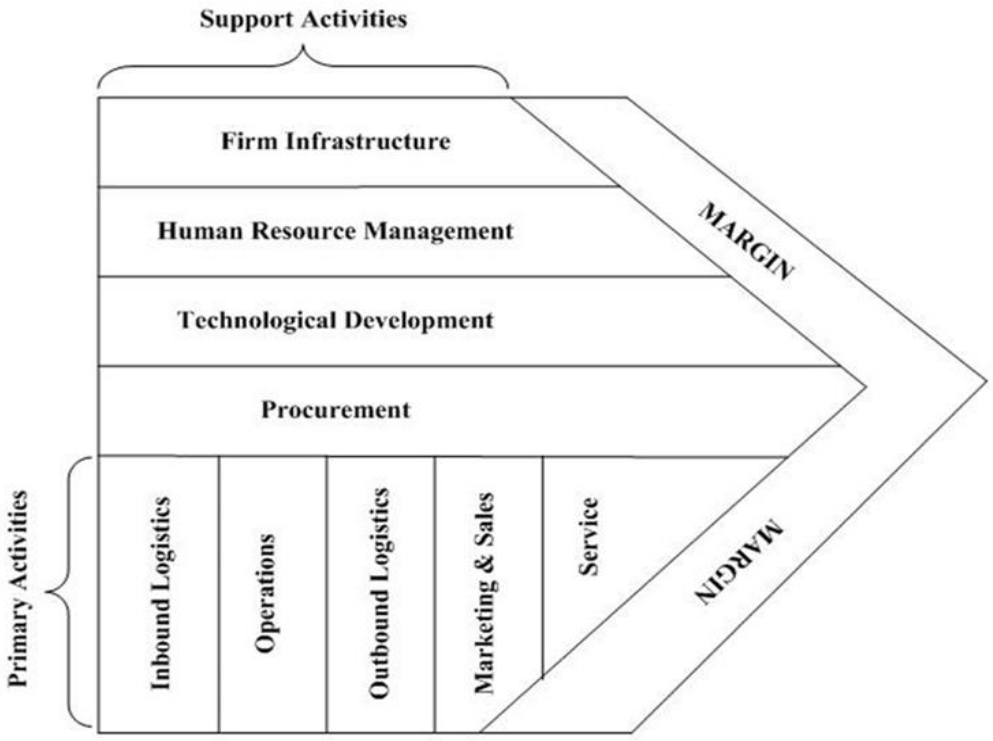
In general, value can be defined as "outcomes relative to costs" (Porter, 2010: 2477). However, creating value should not be understood as simply reducing costs. Contrarily, value refers to more than cost savings and the concept is related to performance improvement, safety, convenience, high quality that lead to make customers to be willing to pay for a product (Hill and Jones, 1989: 93). Therefore, it might be assumed that, if perceived benefits of a product are more than its cost, there is the value. In other words, customers are likely to repeat purchases when their expectations in terms of value are met or exceeded (Neal and Strauss, 2008: 84). For this reason, organizations seek the solutions to create and enhance the value.

Value creation process is associated with stakeholder theory. For instance, Post, Preston and Sachs (2002) state that long-term value has a linkage with the capacity of a company to promote permanent prosperity over time. Moreover, on basis of stakeholder theory, an organization can generate wealth through building and maintaining good relationships with its stakeholder groups –particularly with critical stakeholders.

Furthermore, value creation should be thought as a complex and entire process including several business activities for the manufacturing of a good or service, offering it to the market and after sales services. Organizational activities are distinguished as primary activities and support activities (Porter, 1991: 102). Primary activities are directly involved with producing, marketing and delivering product, service or factors of production whereas support activities are not directly involved

but integral to the process. The ability of the organizations to manage and carry out all these activities has an impact on competitive advantage. In order words, uniqueness in the implementation of an activity or performing organizational activities with a lower cost than the rivals can generate an advantage. These activities are presented through Value Chain Model by Porter in Figure 12.

Figure 12: Value Chain Model



Source: Porter, M. E. 1991. Towards a dynamic theory of strategy. *Strategic management journal*, *12*(Special Issue), p: 103.

Porter's Value Chain framework expresses the importance of a holistic understanding of organizational activities with a particular focus on the supply chain. In order to create value, management should consider entire functions as a whole rather than departments separately. Van Marrewijk (2003) indicates that organizations should give more importance to their employees and suppliers to be successful. Furthermore, as Van Marrewijk (2003) states that "*organizations which continue to improve their quality, ultimately have to adopt a more social management style, in other words, move towards (higher levels of) corporate sustainability*" (Van Marrewijk, 2003: 99).

Value creation can be evaluated both at organizational level and at social level. In other words, every organization operates within a community. Socially sustainable activities implemented within an organization enhance human and societal capital of the communities that have interactions with the sustainable organization. By the way, it is remarked that "*[S]ocially sustainable companies add value to the communities*" (Dyllick and Hockerts, 2002: 133).

In the similar vein, marketing literature points out the concepts of societal marketing and green manufacturing, which are interrelated with social and environmental sustainability, create value as well. In this respect, societal marketing considers long-run welfare and interests of the society as well as the short-run wants of the consumers. Furthermore, green manufacturing is a response to the demand of both businesses and the consumers for the protection and improvement of the living environment. For instance, German customers are willing to pay 80% more for recycled, recyclable and non-damaging to the environment. These trends are also associated with "*sustainability vision*" of the business world that create value for customers that in return, secure value from customers (Kotler and Armstrong, 2016: 640). In the same vein, Ginsberg and Bloom (2004) also state that if environmental friendliness, green marketing and green products are managed properly, it is more likely to construct emotional relationship between the company and the consumers. The emotional relation positively affects the brand image and brand image. When a company is recognized as a green company, then its sales and stock prices will increase as well.

Figge and Hahn (2004) agree on the ideas that corporate sustainability creates value. However, they criticize calculating sustainable value taking into consideration of the external costs generated by environmental and social loses or the difference between financial outcomes and resource consumption (Figge and Hahn, 2004). Instead, they propose that corporate sustainability performance can be measured by Sustainability Value Added scale. Sustainability Value Added refers to "*the extra value created when the overall level of environmental and social impacts is kept constant*" (Figge and Hahn, 2004: 174). This measurement tool is based on the opportunity cost and indicates how much more value is created due to the sustainability practices. It considers economic, social and environmental sustainability simultaneously, because each dimension of corporate sustainability is non-substitutable types of capital (Hahn and Figge, 2011). In other words, any loss in

one of these capitals cannot be substituted by a surplus in another type of sustainability capital. Therefore, efficiency and effectiveness of economic, social and environmental aspects of sustainability should be considered entirely.

Furthermore, sustainability practices lead to create long-term shareholder value by embracing opportunities (Kim, 2015; Knoepfel, 2001). In addition, Thorpe and Prakash-Mani (2003) analyzed the benefits gathered through corporate sustainability practices in emerging markets. Finding of their 240 case studies from over 60 countries reveal that corporate sustainability strategy generates opportunities in terms of easier access to capital (in other words: value from investors) developing human capital (in other words: value from human resources) and enhancing brand value.

Theoretical and empirical studies indicate that organizations carry out corporate sustainability practices in order to create value through strengthening their value chain activities (Mc Kinsey, 2010); attracting, motivating, and retaining talented employees (Lozano, 2009; Thorpe and Prakash-Mani, 2003); increasing corporate credibility and attracting investors and financial authorities (Baumgartner and Ebner, 2010); improving brand value (Collins et.al. 2007; Ginsberg and Bloom, 2004). Moreover, value creation is recognized as a power of customer loyalty and brand equity (Neal and Strauss, 2008). So that, our concern is that value creation is a driving force for corporate sustainability practices. However, there is a literature gap on which dimension of value creation dominates the corporate sustainability practices at present and whether there is a shift from the past experiences to the future expectations. Moreover, there is also a niche whether demographic characteristics of the organizations in terms of reporting – not reporting, national – multinational, manufacturing-service industry, and annual business volume affect the assessments on this topic. Hence,

H1a: The composition of value creation components in terms of corporate sustainability practices vary according to the past experiences, present implementations and future expectations on sustainability vision of the organizations.

H1b: Demographic characteristics of the organizations affect the composition of judgements about the components of value creation in terms of corporate sustainability practices.

4.2. Corporate Reputation

Corporate reputation is a concept that has been analyzed with an increasing interest from different disciplines, especially since the late 1990s. When it comes to the 2000s, this interest has become even more prominent. For instance, according to the results of a research conducted, the number of articles published on corporate reputation between 2001 and 2003 was five times higher than the number of articles published between 1990 and 2000. However, despite this popularity, an exact, generally agreed upon and most frequently recognized definition is still under debate (Barnett, Jermier and Lafferty, 2006: 26-27).

The main factor boosting this argument is corporate reputation takes attention of many researchers from several academic disciplines. While Rindova et.al. (2005: 1033-1034) point out that corporate reputation has been investigated economic and organizational disciplines, Fombrun and Van Riel (1997) reveal from a wider perspective that there are six different disciplines intersecting on corporate reputation. The authors explain these six disciplines and their extent as follows (Fombrun and Van Riel, 1997: 6-10):

- The economic view: Corporate reputation is recognized as a functional tool, which is either a trait or a signal, by economists. Corporate reputation influences the stakeholder perceptions and in return these perceptions (1) stabilize the relationship between the company and the public, (2) enhance the investor confidence.
- The strategic view: Corporate reputation is accepted as an asset that is unique, difficult to imitate and distinct from equivalents. As a result, a strong corporate reputation generates competitive benefits.
- The marketing view: From the marketing point of view, corporate reputation is associated with brand equity and brand image which are important concepts for the success of branding strategies. Therefore, this view mainly focuses on corporate reputation through the perceptions of customers. Thus, corporate reputation intends to capture an attractive, favorable and pleasant space in the heads.
- The organizational view: According to this view, corporate reputation originates from employees' perceptions, so that the concept is related with corporate identity and organizational culture. Thus, it is supposed that if a company has a strong and coherent organizational culture and corporate identity, it is more likely to

impress stakeholder perceptions through continuous, systematic organizational activities.

- The sociological view: Organizational sociology scholars assume that reputational rankings are rooted in socio-cognitive processes. Thus, corporate reputation is recognized as the social constructs of the relationships between the organization and the stakeholders. It is also an indicator of legitimacy that is gathered through the overall evaluation of organizational performance concerning the expectations.
- The accounting view: This view remarks the gap between book value stated in the annual financial reports and market value. Accounting researchers indicate that as expenses and earning relating to branding, training, and R&D generate significant stocks of intangible assets, reporting standards should cover all kinds of intangible assets in order to make more sensitive reputation evaluations.

On the process of seeking a definition, Gotsi and Wilson (2001) remark that the term is generally associated with corporate image and there are two main approaches on the conceptualization of corporate reputation. Accordingly, one approach advocates that corporate reputation is synonymous with corporate image while the second approach distinguishes corporate reputation from corporate image. Researchers of the first approach use both terms interchangeably as it is considered that the terms are identical. From this point of view, corporate image so as corporate reputation refers to comprehensive overall picture (Alvesson, 1998: 98) or total impression (Gotsi and Wilson, 2001: 26) of a company. On the other hand, particularly from 1990s, a new approach has started to be dominant in literature. Accordingly, corporate reputation is not the same with corporate image. Authors who support this approach advocate three main different views. The first view distinguishes corporate reputation from corporate image and proposes that companies should focus on corporate reputation (Brown and Cox, 1997). The second view states that both concepts cannot be completely separated from each other, as they are related with. Accordingly, corporate reputation affects corporate image and it is one of the dimensions of corporate image (Mason, 1993). Finally, the researchers from the third view suppose that corporate image has an influence on corporate reputation. For instance, Saxton (1998: 396) indicates that corporate reputation is a reflection of how an institution seems from all its corporate stakeholders over time. Similarly,

corporate reputation is defined as "*a snapshot that reconciles the multiple images of a company held by all its constituencies*" (Fombrun, 1996: 72).

According to Chun (2005: 96), corporate reputation is the result of value judgments about what the public thinks about a company's current activities -what it does and how it behaves-, and the quality offered by the company. On the other hand, corporate image can be created even if it is not a real experience, and it can change quickly with the help of marketing and advertising activities. The change of corporate reputation takes much longer than the corporate image and also requires a stable and continuous effort both inside and outside the organization. In the same vein, Dalton and Croft (2003: 9) state that corporate image can be created but corporate reputation is deserved.

It is generally accepted that, positive corporate reputation creates value through contributing to intangible assets. In other words, positive corporate reputation and financial performance are positively correlated with (Roberts and Dowling, 2002; Kadıbeşegil, 2007: 55). Thus, corporate reputation is also recognized as the primary determinant of competitiveness (Tucker and Melewar, 2005: 377).

Recent literature remarks that corporate sustainability performance has a positive impact on corporate reputation building (Lu and Taylor, 2015; Herzig and Schaltegger, 2011; Thorpe and Prakash-Mani, 2003). In the same vein, Global Reporting Initiative also points out that corporate sustainability practices improve corporate reputation (GRI, 2016). In addition to academic point of view, business executives also believe in that corporate sustainability is positively associated with building and maintaining corporate reputation (McKinsey, 2010; McKinsey, 2014). Therefore, it is recognized by both theoretical and empirical studies that organizations carry out corporate sustainability practices in order to improve their corporate reputation. In this regard, being sustainable leads to being reputable through improving the preferability of products and services that the company offers (McKinsey, 2010); improving customer loyalty (McKinsey, 2010); enhancing intangible resources (Kadıbeşegil, 2007; Roberts and Dowling, 2002), providing and maintaining competitive advantage (McKinsey, 2010). So that, our concern is that enhancing corporate reputation is a driving force for corporate sustainability practices. However, there is a literature gap on which aspect of corporate reputation dominates the corporate sustainability practices at present and whether there is a shift

from the past experiences to the future expectations. Moreover, there is also a niche whether demographic characteristics of the organizations in terms of reporting – not reporting, national – multinational, manufacturing-service industry, and annual business volume affect the assessments on this topic. Hence,

H2a: The composition of corporate reputation components in terms of corporate sustainability practices vary according to the past experiences, present implementations and future expectations on sustainability vision of the organizations.

H2b: Demographic characteristics of the organizations affect the composition of judgements about the components of corporate reputation in terms of corporate sustainability practices.

4.3. Alignment with Business Goals

Business goals and organizational objectives refer to what the organization aimed at achieving in a given period while carrying out its mission. As organizational strategies are determined in pursuing business goals, they are essential for organizational success. Therefore, they should be clear, measurable, and consistent (David, 2003: 11). Goals concerning the volume and amount of sales, volume of production, resource utilization, market share, balance sheet, number of training activities are stated most frequently (Koçel, 2011: 162-163).

In sustainability literature, many authors indicate the positive influence of corporate sustainability practices during the fulfilment process of organizational objectives. Benefits of sustainable activities can be witnessed in different fields. In general, organizational efficiency (Hart and Ahuja, 1996; Dyllick and Hockertz, 2002; Figge and Hahn, 2004), corporate growth (Wilson, 2003), economic growth (Hahn and Scheermesser, 2006), new growth options in the company's investment opportunities (Artiach et.al., 2010), sales growth (Ameer and Othman, 2012; Lo and Sheu, 2007), resource growth (Thorpe and Prakash-Mani, 2003), business competitiveness (Wagner and Schaltegger, 2003), development of corporate and business ethics (Michelson et. al., 2004; Van Marrewijik, 2003) have already been presented among the primary concerns where the benefits of corporate sustainability practices intersects with business goals.

Drawing from the recent literature, corporate sustainability practices contribute to overall organizational objectives. So that, our concern is that corporate sustainability practices are carried out in order to align with and achieve organization's business goals. However, there is a literature gap about which business goals are specifically influential on the engagement of corporate sustainability practices at present and whether there is a shift from the past experiences to the future expectations. Moreover, there is also a niche whether demographic characteristics of the organizations in terms of reporting – not reporting, national – multinational, manufacturing-service industry, and annual business volume affect the assessments on this topic. Hence,

H3a: The composition of business goals aligned with organizational objectives in terms of corporate sustainability vary according to the past experiences, present implementations and future expectations on sustainability vision of the organizations.

H3b: Demographic characteristics of the organizations affect the judgements about the composition of business goals aligned with organizational objectives in terms of corporate sustainability practices.

4.4. Regulations

As a rule of thumb, every organization operates its activities within an external environment and it is compulsory to respect and obey the legal obligations related to business segment, and the industry. Since supranational organizations, governments, and the public become more aware on the social and environmental concerns, regulatory systems are revised in order to address these topics. In this context, regulations regarding occupational health and safety, employee training, equal remuneration for women and men, non-discrimination, freedom of association, consumer rights, emissions into the air, water or ground, bio-diversity, waste management have been improved for the well-being of people (Lozano, 2009).

Efforts for the compliance with the regulations naturally resulted in the convergence of business practices with corporate sustainability. In other words sustainability issues are simultaneously pursued (Baumgartner and Ebner, 2010). The purpose of conformity with the legislation leads to the social and environmental responsibility to be of special interest and engagement with sustainability vision.

In general, external factors such as environmental regulations, governmental legislation, and international social and environmental standards are accepted as the primary source of sustainability practices (Howard- Grenville, 2006). According to the quantitative and qualitative results of a survey of German and United Kingdom pharmaceuticals firms, regulations are indicated as the primary driver for sustainability improvements (Blum-Kusterer and Hussain, 2001). In the same vein, Lozano (2012b) remarks the significant role of regulations on the transformation process from unsustainable to sustainable business activities.

Consequently, it is recognized that organizations carry out corporate sustainability practices in order to comply with regulations (Morhardt, Baird and Freeman, 2002; Dechant and Altman, 1994). Therefore, regulations are one of the key drivers for corporate sustainability practices. These regulations can be environmental, social regulations together with the regulations generating from international treaties or legislation regulations (Howard – Grenville, 2006), and also regulations related to industry standards (Blum-Kusterer and Hussain, 2001). So that, our concern is that regulations is a driving force for corporate sustainability practices. However, there is a literature gap on what type of regulations is more influential on corporate sustainability practices at present and whether there is a shift from the past experiences to the future expectations. Moreover, there is also a niche whether demographic characteristics of the organizations in terms of reporting – not reporting, national – multinational, manufacturing-service industry, and annual business volume affect the assessments on this topic. Hence,

H4a: The composition of regulation components in terms of corporate sustainability practices vary according to the past experiences, present implementations and future expectations on sustainability vision of the organizations.

H4b: Demographic characteristics of the organizations affect the composition of judgements about the components of regulations in terms of corporate sustainability practices.

4.5. Managing the Risks

Although there is no consensus on the definition of risk (Aven and Renn, 2009), International Risk Governance Council (IRGC, 2006: 19) publicizes the

following definition: "*Risk is … an uncertain consequence of an event or an activity with respect to something that humans value*" (IRGC, 2006: 19). Business risk refers to the degree of financial performance fluctuations over time (Orlitzky and Benjamin, 2001: 370). Primary risk factors that influence financial performance of organizations are identified as income stream uncertainty, stock return risks, industrial risks (Miller and Bromiley, 1990). What serious is business risk perception affects organizational performance negatively. As Bloom and Milkovich (1998: 294) state that, greater business risk generates greater uncertainties both for corporate planning and forecasting processes and also for human resources management. For instance as a result of higher risks, administrative board may reduce or impede incentive payment, even though there is not an explicit occupational error done in achieving organizational objectives.

Literature on corporate sustainability indicates that sustainability practices lead to better risk management (Thorpe and Prakash-Mani, 2003). It is because of the reason that sustainability vision increases the awareness on economic, social and environmental developments. This awareness initiates embracing opportunities, avoiding threats, forecasting and managing risks in return (Knoepfel, 2001). Furthermore, several studies point out that sustainability practices and reporting provide both an increased understanding of risks and opportunities for businesses and transparency and accountability for stakeholders (GRI, 2016), initiate better risk management (Herzig and Schaltegger, 2011), reduce unsystematic stock market risk (Bansal and Clelland, 2004) and decrease market risks (Orlitzky and Benjamin, 2001). In addition, as stated in Our Common Future, sustainability practices assist handling both social risks by addressing the improvement of people's welfare and environmental risks by addressing the attention to the risk of depletion of renewable and non-renewable resources, emissions and waste management (WCED, 1987). Hart and Milstein (2003: 36) indicate that a few companies have started to implement sustainability practices to take the advantages of creating opportunities in regard to lowering risks.

Consequently, drawing from the recent literature, our concern is that corporate sustainability practices contribute to better risk management in the organization. So that regulations are recognized among the significant drivers for corporate sustainability practices. In this respect, the concept managing risks contain several elements including reducing financial risks by providing corporate

transparency (Baumgartner and Ebner, 2010); reducing environmental risks through understanding environmental resource constraints (Daub, 2007; Morhardt, Baird and Freeman, 2002); reducing social risks through respecting for human rights, equal opportunity, equal pay, non-discrimination (WCED, 1987); and reducing the risk of entering new markets (Hart and Milstein, 2003). However, there is a literature gap that which of these elements are more influential on the engagement of corporate sustainability practices at present and whether there is a shift from the past experiences to the future expectations. In addition to this, how the demographic characteristics of the organizations in terms of reporting – not reporting, national – multinational, manufacturing-service industry, and annual business volume affect the assessments on this topic is still blur. Hence,

H5a: The composition of risk management components in terms of corporate sustainability practices vary according to the past experiences, present implementations and future expectations on sustainability vision of the organizations.

H5b: Demographic characteristics of the organizations affect the composition of judgements about the components of risk management in terms of corporate sustainability practices.

4.6. Corporate Prioritization

It is assumed that one of the main internal factors promoting the adoption process of corporate sustainability arises from the individuals and human resource management within the organization. In other words, chairman of the executive board, top management, leaders, employee training and empowerment, reward systems are significant elements on the transformation from unsustainable to sustainable (Daily and Huang, 2001; Bertels, Papania and Papania, 2010). For instance, dedication to sustainability principles of the organization becomes visible through publication of sustainability reports, adoption of sustainability measures into employee assessment and reward processes, arranging training activities of sustainability thinking (Dunphy, Griffiths and Benn, 2003). That kind of actions are generally requested and directed by executives or leaders within the organization and they cannot be realized without the approval of the board of management. Administrative body of an organization can be viewed as a two sided coin which may impede or foster the implementation of sustainability. Therefore, corporate

prioritization of sustainability principles is a significant aspect to achieve sustainability goals.

In the same vein, Mc Kinsey Global Survey results reveal that, companies that are the most engaged with sustainability are the ones that their executives or CEO's embrace sustainability principles among the top-three priority on their agendas (McKinsey, 2010). Thus, it might be concluded that, organizational prioritization on the implementation of sustainability is a driving force for corporate sustainability practices. This organizational prioritization can be generated from a part of entire corporate strategy (Dunphy, Griffiths and Benn, 2003); senior executives or top management (Daily and Huang, 2001); or leadership's personal interest (Lozano, 2009; Daily and Huang, 2001). When sustainability reports published by companies operating in Turkey are examined a remarkable finding is observed. During the period of the transformation to sustainable practices and sustainability reporting many companies collaborate with sustainability consulting companies. Therefore, it might be considered that the advices from the consulting companies may be an effective factor in organizational prioritization on sustainability practices. However, there is a literature gap that which of these sources are more influential on the prioritization of sustainability practices at present and whether there is a shift from the past experiences to the future expectations. In addition to this, how the demographic characteristics of the organizations in terms of reporting – not reporting, national – multinational, manufacturing-service industry, and annual business volume affect the assessments on this topic is still blur. Hence,

H6a: The composition of corporate prioritization components in terms of corporate sustainability practices vary according to the past experiences, present implementations and future expectations on sustainability vision of the organizations.

H6b: Demographic characteristics of the organizations affect the composition of judgements about the components of corporate prioritization in terms of corporate sustainability practices.

4.7. Cost Cutting

In the previous chapters, the debate whether moving towards particularly environmental and also social sustainability practices increases or lowers

organizational costs has been described. Besides the conflicting assumptions, most of the research remarks the positive impact of environmental and social sustainability practices on financial performance including cost cutting.

In addition, when corporate sustainability reports are examined, they seem to pay particular attention to environmental issues including percentage of recycled input materials used in manufacturing, total energy –notedly electricity consumption within the organization together with the precautions to reduce the current consumption, total water withdrawal, emissions –notedly greenhouse gasses created by the organization, and weight of waste and its disposal methods. For instance a sustainability professional who participated to the survey of conducted for this thesis explained that companies engage in sustainability practices have initially focused on electricity consumption. Because a small reduction in electricity consumption generates a rapid and relatively more impressive positive outcome on the total energy costs. However, in the near future the focal point will shift from electricity to water consumption due to the water wars awaiting the world in 2040s. Thus, according to her, volume of water recycled and reused will be more significant and companies will place more emphasis on this issue both during their business activities and on their sustainability reports.

Recent literature also supports that improved sustainability performance on the basis of environmental responsibility promotes cost savings and efficiency (e.g. Schaltegger and Synnestvedt, 2002; Russo and Fouts, 1997). In addition, as stated by Hart and Ahuja (1996: 56) it is worth paying to be green, since a reduction in emissions and pollution prevention lead to organizational efficiency, cost cutting, and cost advantage. Furthermore, Wagner and Schaltegger (2003: 5-8) state that corporate sustainability practices initiate lowering production costs and enhancing productivity. Under these circumstances, it is generally accepted in literature that corporate sustainability practices lead to lowering costs which is significant for increasing profits. Therefore, our concern is that cost cutting is one of the key drivers of corporate sustainability practices. In this respect, efforts for increasing recycled material used in production (Benn, Dunphy and Griffiths, 2006); water conservation and energy saving (Hart and Ahuja, 1996); and waste management (Mc Kinsey, 2010; Mc Kinsey, 2014) are taken into account. However, there is a literature gap on which efforts are more significant for corporate sustainability practices at present and whether there is a shift from the past experiences to the future expectations.

Moreover, there is also a niche whether demographic characteristics of the organizations in terms of reporting – not reporting, national – multinational, manufacturing-service industry, and annual business volume affect the assessments on this topic. Hence,

H7a: The composition of components for reducing organizational costs in terms of corporate sustainability practices vary according to the past experiences, present implementations and future expectations on sustainability vision of the organizations.

H7b: Demographic characteristics of the organizations affect the composition of judgements about the components for reducing organizational costs in terms of corporate sustainability practices.

4.8. Corporate Communication

Communication is generally described as a complex process of the exchange and transmission of information between sender and receiver (Targowski and Bowman, 1988). The term refers to "*symbolically mediated action, with humans constructing their reality on the basis of perceptions and experiences*" (Godemann and Michelsen, 2011: 6).

Corporate communication is defined by Cornelissen (2014) in his book titled Corporate Communications: Theory and Practice as "*a management function that offers a framework and vocabulary for the effective coordination of all means of communications with the overall purpose of establishing and maintaining favourable reputations*" (Cornelissen, 2014: 23).

Similarly Van Riel (1992) defines the concept as "*a management instrument*" and expresses the significance of both internal and external communication with stakeholders in order to develop good relationships and strengthen corporate image (Van Riel, 1992: 161-162).

Deriving from stated definitions, corporate communication is recognized as a management function which comprises both internal and external communication. It takes account of the organization entirely and focuses on the best alternatives for the presentation of the organization to all of its key stakeholders. So that communication strategy should be consistent with the corporate strategy and corporate objectives. For this reason, it necessitates considering stakeholders, corporate identity, and

corporate reputation. In other words, corporate values, messages and stories should be determined, planned, projected and aimed to be achieved in order to create value and build reputation from the stakeholders' perspective (Cornelissen, 2014: 20-22).

With this purpose, organizations utilize several communication vehicles such as annual reports, publications, messages from CEO or top management (Kohut and Segars, 1992), newsletters, newspaper reports, video presentations and podcasts (Welch and Jackson, 2007).

In recent years, due to the overwhelming significance of sustainability principles, a new field named sustainability communication within corporate communication has emerged. This concept has the purpose of introducing social and environmental phenomena and relationships into governance disclosure (Godemann and Michelsen, 2011). Kilbourne (2004: 193) describes sustainability communication as "*...working towards a world where humankind can preserve rather than dominate nature*". Thus, it is assumed that sustainability communication presents a great change in the relationship of the organizations with the public.

With this challenge, publication of corporate sustainability reports (Lozano, 2012b); redesigning of corporate web site with a special section that presents the commitment to sustainable, socially and environmentally responsible principles; or receiving awards due to sustainable operations (Mc Kinsey, 2010) have begun to take attention. In addition, our own experiences indicate that participation in associations related with corporate sustainability matters contributes to corporate communication objectives as well (E.g. Sustainable Development Association - Sürdürülebilir Kalkınma Derneği – SKD). By the way, sustainability professionals have an opportunity to get a part within sustainability network, present their own practices and success stories with other professionals. Achievements through mutual information exchange within those networks contribute to sustainability communication. Consequently, within the context of corporate communication, by sustainability communication, organizations enhance their strategic posture though presenting their awareness and commitment to sustainability principles and practices, differentiate their positions among their rivals and create value for their key stakeholders. Therefore, our concern is that improving corporate communication is recognized as one of the drivers of corporate sustainability practices. However, there is a literature gap on which corporate communication activities are more significant

for corporate sustainability practices at present and whether there is a shift from the past experiences to the future expectations. Moreover, there is also a niche whether demographic characteristics of the organizations in terms of reporting – not reporting, national – multinational, manufacturing-service industry, and annual business volume affect the assessments on this topic. Hence,

H8a: The composition of corporate communication components in terms of corporate sustainability practices vary according to the past experiences, present implementations and future expectations on sustainability vision of the organizations.

H8b: Demographic characteristics of the organizations affect the composition of judgements about the components of corporate communication in terms of corporate sustainability practices.

5. CHAPTER: METHODOLOGY

This chapter provides information about the methodology applied in this thesis, designing the measurement instrument for the research, sampling and data collection process.

5.1. Compositional Data

A data is compositional if it consists of parts that sum up to a total (Van den Boogart and Tolosana-Delgado, 2013) such as percentage distribution of different group of employees in companies in a particular sector, mass ratios of elements in a chemical compound. The data used in this thesis is of compositional type because the respondent is asked to distribute a 100% constant sum of importance to given options for each question.

Most of the multivariate statistics methods developed for scale or ordinal type of data (including Likert scale) are inappropriate for compositional data. Some of the technical reasons are enlisted as follows (Van den Boogart and Tolosana-Delgado, 2013):

a. Ingredients of compositional data exhibit negative correlations and this negative bias does not fit well with assumptions of multivariate statistics where the independence assumption requires zero covariance or zero correlation.

We demonstrate this using a portion of the dataset used in this thesis. First question of the scale of this thesis interrogate the options (constituents) of value creation on corporate sustainability. Respondents were given the following options:

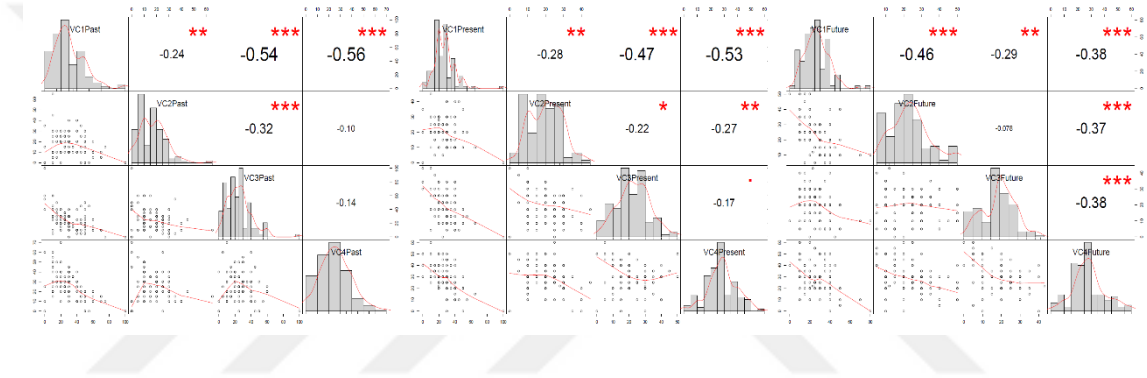
Table 11: Ingredients of compositional data

Code	Option	Statement
VC1	Value chain	These practices are carried out in order to create and strengthen value chain activities (i.e. procurement, manufacturing, marketing, sales)
VC2	Talented employees	These practices are carried out in order to attract, motivate, and retain talented employees

Code	Option	Statement
VC3	Investor credibility	These practices are carried out in order to increase corporate credibility and attract investors and financial authorities.
VC4	Brand value	These practices are carried out in order to improve brand value.

When the correlation of these options is calculated for all values (Past, Present and Future) negative correlations are clearly seen. Same situation is valid for all other variables as well.

Figure 13: Negative Correlation



b. For compositional data covariance of two options depends on which other options are reported in the dataset.

To see this, we compute the correlation between Past values VC1, VC2 and VC3 in the presence and absence of VC4 and tabulate the results below. Correlations are clearly different. This situation is valued for all variables.

Table 12: Covariance – VC4 included

VC4 Included	VC1Past	VC2Past	VC3Past
VC1Past	1	-0.24313	-0.54226
VC2Past	-0.24313	1	-0.31886
VC3Past	-0.54226	-0.31886	1

Table 13: Covariance – VC4 not included

VC4 Not Included	VC1Past	VC2Past	VC3Past
VC1Past	1	-0.33202	-0.75328
VC2Past	-0.33202	1	-0.37028
VC3Past	-0.75328	-0.37028	1

c. For compositional data covariance matrices are always singular. This is clearly the case since each row sums to a constant. But for most of the dimension reduction techniques such as Principal Component Analysis, Factor Analysis or Correspondence Analysis full rank matrices are required.
d. Since for compositional data, values are necessarily bounded values are not normally distributed.

This situation is demonstrated in Figure 13. Values are non-normally distributed displayed in the histograms in the diagonals of the figure.

Compositional data is not a frequently used data type in social sciences mainly for two reasons. First, the analysis of compositional data is more difficult than other type of data. Secondly, respondents are needed to provide cognitive effort to sum up to a total through fulfilling several parts. In other words, it is compulsory that participants should have knowledge and competence related with concepts stated on the questionnaire, make cognitive efforts and devote considerable amount of time to fulfil the questionnaire form.

Besides these difficulties, as stated by Cameron and Quinn (2011), compositional data enables researchers to gather less contaminated data compared to Likert type questions. In the Organizational Culture Assessment Instrument (OCAI) methodology they developed, the authors explain the reasons of using compositional data alternative to much more frequently preferred Likert-type questions. They argue that Likert type scales can be manipulated by respondents with little cognitive effort (Cameron and Quinn, 2011). Options in the Likert scale has clear positive and negative senses and do not enforce the respondent to provide cognitive effort or be competent on the topic and hence ability to manipulate the outcome. This manipulation would then contaminate the data. On the other hand, these limitations of Likert type questions are overcomed via using compositional data, because

compositional data compel the respondents to make choices together with tradeoffs. As several parts sum up to a constant total, respondents reflect their own thoughts and judgements. In other words, this process of making choices and tradeoffs requires an intensive cognitive effort. So, there is a need for participants with in-depth knowledge about the subject.

For the analysis of data by OCAI, Cameron and Quinn (2011) used radar charts and generated meaning comparatively. However, radar charts are not favorable in terms of key features expected from models such as explanatory power and statistical significance. The article titled "Log-Ratio Analysis Is a Limiting Case of Correspondence Analysis" by Greenacre (2010) is a remarkable work as proposing the idea of using correspondence analysis for compositional data, but has not drawn adequate attention in social sciences. In a more recent work, Greenacre (2017) demonstrated that compositional data can become available for correspondence analysis with singular value decomposition after a particular logarithmic transformation.

For this thesis, a new R function has been coded which can perform the necessary transformations emphasized by Greenacre (2017) so that compositional data can be analyzed within correspondence analysis framework. This code has been developed for the first time in literature. In the development of this code, the correspondence analysis function in the "ca" package written by Greenacre (2017) in R software was rearranged in accordance with the guidance drawn by Greenacre (2017) and adapted to the compositional data. In other words, we wrote a new code by modifying the existing "ca" packages in R software. The name of the new function developed in this way is "co.ca" (Compositional data and correspondence analysis).

5.2. Correspondence Analysis

It is possible to explain correspondence analysis in its simplest form by means of other well-known methods. In this regard, correspondence analysis is similar to principal component analysis (Hill, 1974: 340) that is a way to analyze data given on the correlation matrix. In order to interpret data, maximum variance is emphasized on the first principal axis. Second axis reflects the remaining variance. On the other hand, in correspondence analysis chi-square (cross tabulation) matrix is

focal point instead of correlation matrix. Distance is measured through chi-square distance and variation in correspondence analysis is called inertia. Correspondence analysis is performed in order to construct maximum inertia on the first axis. The second axis reflects the remaining inertia. So, the total inertia is dispersed along principal axes, in other words principal inertia (Greenacre, 2017: 88). Dimension reduction can be applied to correspondence analysis by using singular value decomposition. Correspondence analysis enables the researcher to interpret a multi-dimensional data easier through dimension reduction with minimum loss, maximum information, and high quality. Another advantage of correspondence analysis is, it can be implemented for the analysis of both categorical and count data (Bendixen, 1996) and for compositional data as well (Greenacre, 2010).

A biplot where both variables and individuals are shown on the same diagram is one of the most fundamental elements of correspondence analysis. A biplot ensures the examination of residual values (which are calculated by subtracting each value from the average) of the dataset in the same space simultaneously as a result of reducing dimensions using singular value decomposition. The example demonstrated on Table 14 was prepared in order to explain correspondence analysis and the interpretation of biplots.

Table 14: Age by Education Level Contingency Table

	High School	***Bachelor***	***Master***	***PhD***	***Total***
18-24	4	2	3	2	11
25-34	4	3	7	4	18
35-44	25	10	12	4	51
45-54	18	24	33	13	88
55 - +	10	6	7	2	25
Total	61	45	62	25	193

Interpreting this contingency table in this simple example is easy. Visual inspection indicates that 35-44 year old people are dominant among high school graduates; 45-54 year old people are dominant among bachelor, master and PhD degree. Most of the 18-24 year old, 35-44 year old and 55+ year old people are high school graduates, most of the 25- 34 year old and 45-54 year old people have master degree.

Table 15 indicates the percentages calculated according to row profiles together with masses and average profile. The column of masses show the ratio between the data of age by education level stated in rows to total number of people in every age group stated on column of total. The row of average profile shows the ratio between the data stated on row of total to final total of 193.

Table 15: Masses and Average Profiles

	High School	***Bachelor***	***Master***	***PhD***	***Masses***
18-24	0,364	0,182	0,273	0,182	0,057
25-34	0,222	0,167	0,389	0,222	0,093
35-44	0,49	0,196	0,235	0,078	0,264
45-54	0,205	0,273	0,375	0,148	0,456
55 +	0,4	0,24	0,28	0,08	0,13
Average Profile	0,316	0,233	0,321	0,130	

Correspondence analysis was applied to the data set stated in Table 14 and Table 15 by using ca package in R software. R codes for the analysis are stated as follows:

```
library(readxl)
pilot <- as.data.frame(read_excel("C:/Users/Angel/Desktop/pilot.xls"))
library(ca)
pilot_ca<-ca(pilot)
plot.ca(pilot_ca)
```

For this example we named the example data set file as pilot and got the results and biplots of the correspondence analysis. Accordingly, (n-1) number of dimensions were obtained from 4 education categories and the data set was reduced to 3 dimensions. The explanatory power of these dimensions and the principal inertia values are shown in Table 16.

Table 16: Dimension Details

	Principal inertias (Eigenvalues)		
	1	2	3
Value	0.074759	0.010017	0.000414
Percentage	87.76%	11.76%	0.49%

In addition, Table 17 indicates the chi square distances, inertia and the positioning of the variables on dimension 1 and dimension 2 for the row values. Table 17 confirms the values of masses given in Table 15.

Table 17: Row Details

	Age: 18-24	**Age: 25-34**	**Age: 35-44**	**Age: 45-54**	**Age: 55+**
Mass	0.056995	0.093264	0.264249	0.455959	0.129534
Chi-square Distance	0.216559	0.356921	0.380779	0.240025	0.216169
Inertia	0.002673	0.011881	0.038314	0.026269	0.006053
Dimension1	-0.240539	0.947105	-1.391973	0.851989	-0.735456
Dimension2	-1.935708	-2.430958	-0.106508	0.576944	0.788435

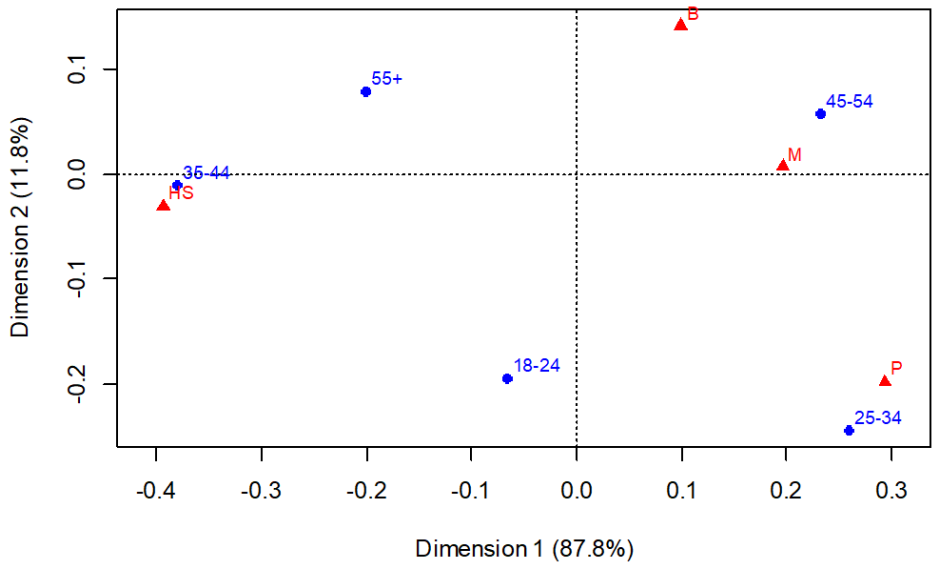
Furthermore, Table 18 indicates the chi square distances, inertia and the positioning of the variables on dimension 1 and dimension 2 for the column values. Table 18 confirms the values of masses given in Table 15 as well.

Table 18: Column Details

	High School	**Bachelor**	**Masters**	**PhD**
Mass	0.316062	0.233161	0.321244	0.129534
Chi-square Distance	0.394490	0.173996	0.198127	0.355109
Inertia	0.049186	0.007059	0.012610	0.016335
Dimension 1	-1.438471	0.363746	0.718017	1.074445
Dimension 2	-0.304659	1.409433	0.073528	-1.975960

A biplot explains the variables on the dataset in terms of their projections on the axes and their positions relative to each other. This results in the percentage of explanatory power of both the horizontal axis and the vertical axis. It should be reminded that in case of compositional data, there is a negative correlation between the ingredients. An increase in one ingredient of compositional data, leads to a decrease in other ingredients as it was discussed in the previous section. This is the common feature generated from the structure of the compositional data. As our research grounds upon compositional data and all biplots are explained in Chapter 5, we present biplots of our example based on the categorical data at this section.

Figure 14: Symmetrical Biplot



As it has been stated that the correspondence analysis is a method that enables to reduce dimensions so that the researcher can easier interpret the data with maximum information and minimum dimension. For this reason, the biplot presents explanatory power by two dimensions. According to biplot in Figure 14, Dimension 1 on the horizontal axis explains data set with 87.8 % explanatory power whereas Dimension 2 on vertical axis explains 11.8 %. Therefore, total quality of display equals to the sum of the explanatory power both axes, that is 99,6 %. This means that Dimension 1 has to a large extent explanatory power of the data set. So that, both blue points and for red triangles, it is possible to make interpretations taking into account the projections of profiles on Dimension 1. Accordingly, we can check the blue points projections at first. They are sequenced as 35-44, 55+, 18-24, 45-54, 25-34. Hence, there is no meaningful ranking in terms of age here. In terms of red triangles, from left to right respectively, there are HS, B, M, P. This means that HS is stated in a different position from the other three education categories. In other words, HS differs from the other profiles in terms of the projection on Dimension 1. In compositional data, differentiated profiles are important and that is what the researchers expect to find. To understand the reason of this difference, it is useful to interpret the blue and the red triangle at simultaneously. In doing so, the focal point, blue points and red are not closeness or distance to each other because, there is a scale distance between the blue points and the red triangles. In other words, in correspondence analysis it is possible to draw biplots with different approaches to

draw biplots such as symmetrical, row principle or column principle. These different types of biplots present different aspects of the same set of views. Therefore, it can be misleading to try to interpret the figure only on the basis of the closeness or distance. Figure 15 and Figure 16 can be interpreted in this context.

Figure 15: Row Principle Biplot

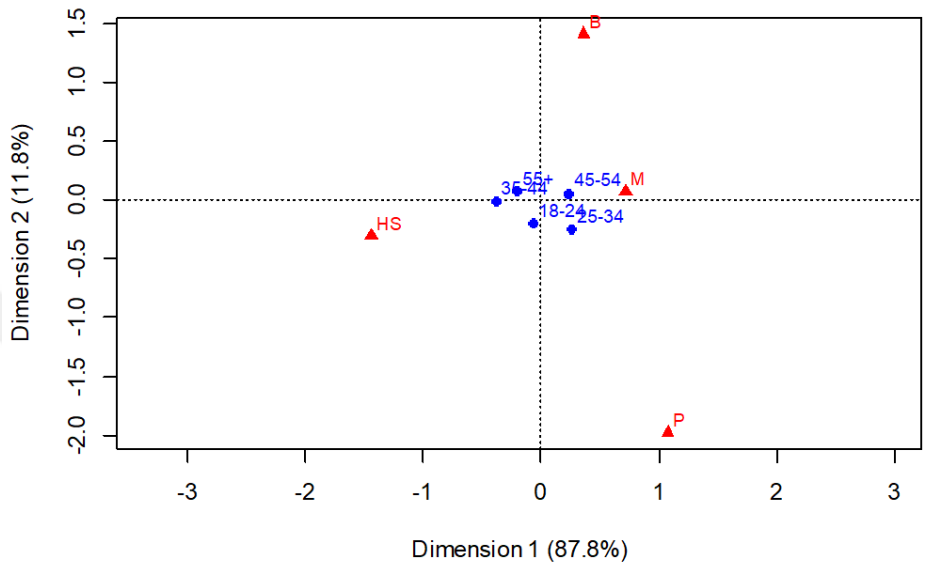
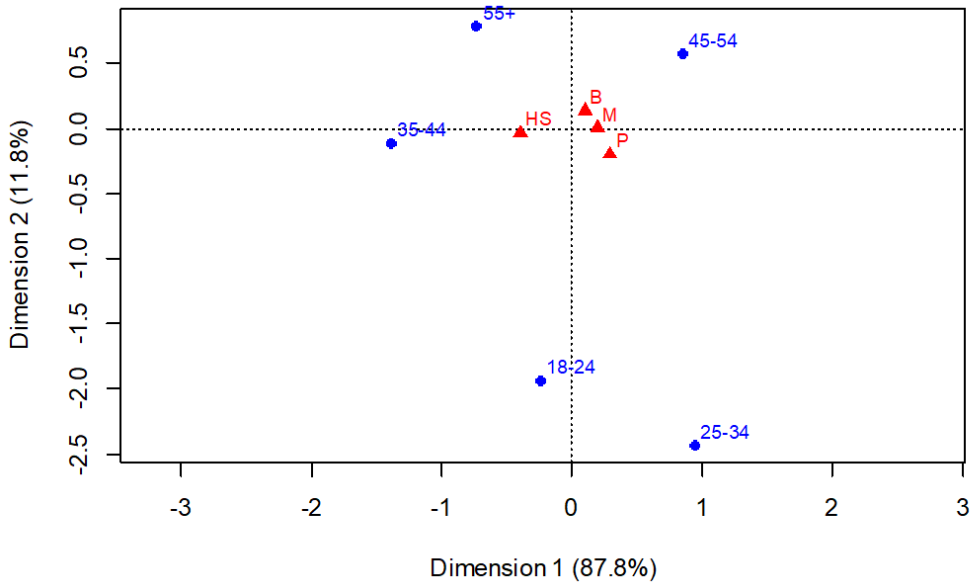


Figure 15 presents row principle biplot of the example, whereas Figure 16 demonstrates column principle biplot of the same dataset.

Figure 16: Column Principle Biplot



When we look at Figure 15 and Figure 16 simultaneously, we can perceive them as different entities. But, in fact, the distances within blue points themselves and the distances within red triangles themselves are the same. Due to the differences of scales between the two figures, one can perceive as differently. For this reason, orientation of the blue points and orientation of red triangles on the coordinates should be analyzed instead of their closeness or distances.

All three biplots (symmetric, row principle, column principle) reflect that the positionings of HS, 35-44 and 55 + are located in the left part of the origin and situated away from the other profiles. This can be interpreted as that there is a relationship between High School graduation and the age groups of 35-44 and 55+, revealing that HS is dominated by these two age groups.

So far, in order to interpret the biplots, Dimension 1 is analyzed. Interpretation can be done on the basis of Dimension 2 as well. At this point, explanatory power of the dimensions gives the idea where to start interpretation. By the way, in order to examine the differentiation among the rest of the profiles relative to the dominant profile stated according to the projections on Dimension 1, Dimension 2 will help the researcher and projections on Dimension 2 are analyzed. As there is a great difference between the explanatory power of two dimensions in our example and Dimension 1 explains 87.8 % of the model itself, Dimension 2 is not analyzed.

Generally, in bi-plot graphs, the distance of a profile from the origin means that it differs from the other variables. In other words, it is situated away from the origin. As a rule of thumb, the origin represents the average in the biplot.

5.3. Measurement Instrument

As for the identification of the unfolding strategic drivers of corporate sustainability practices, we utilized the recent theoretical literature and findings of empirical research. In general, sustainability literature is lack of a well-structured and generally accepted corporate sustainability measurement scale. Attempts with this purpose primarily shed light the methodology of developing a general framework of indicators to identify sustainable practices and evaluating corporate sustainability performance. In other words, most of the studies focus on specifying key

sustainability performance indicators and their presentation method (qualitative or quantitative) while issuing a corporate sustainability report. For instance, Callens and Tyteca (1999) propose a list of indicators regarding the assessment of corporate sustainability in order to get information required in the development of sustainability indicators at the firm level. Similarly, the paper by Azapagic and Perdan (2000) proposes a general framework with a set of indicators to identify more sustainable practices. Indicators stated in GRI Guidelines are recognized as the basis of most of the studies on the assessment of corporate sustainability performance. For instance, there are studies in Spain by Gallego (2006) and in Greece by Skouloudis and Evangelinos (2009) conducted to explore which GRI indicators are widely used.

On the measurement of corporate sustainability performance, Figge et al. (2002) suggested Balanced Scorecard method developed by Kaplan and Norton (1996) can be associated with sustainability management. Accordingly, three main dimensions of corporate sustainability (economic sustainability, social sustainability and environmental sustainability) can be integrated into four dimensions of performance measures (financial perspective, customer perspective, internal business perspective, innovation and learning perspective) (Özçelik, 2013).

In another comprehensive study, Daub (2007) has developed a standard criterion and a rating scale that enables evaluation and comparison of the existing corporate sustainability reports in regard to economic, social, and environmental sustainability performance together with transparency and credibility of the information presented in performance sections.

There are few studies on the evaluation of corporate sustainability reporting in Turkey. Altuntaş and Türker (2012) analyzed corporate sustainability reports of ten manufacturing companies operating in Turkey and developed their concept maps to identify the perceptions of these companies towards the sub-dimensions of sustainable supply chain concept. In a more recent study, Aktaş, Kayalıdere and Kargın (2013) seek to find out the level of GRI indicators (i.e. fully reported, partially reported not reported) reported in sustainability reports of nine companies operating in Turkey.

In addition to analyzes of corporate sustainability reports and attempts to develop a corporate sustainability reporting standard, another interesting research by Linnenluecke, Russell and Griffiths (2009) focus on how an organization

understands corporate sustainability. In their article titled "Subcultures and Sustainability Practices: the Impact on Understanding Corporate Sustainability", researchers propose a measurement scale reflecting the perceptions of employee awareness on corporate sustainability in a company. Their assumption originates from the presence of subcultures in an organization may create differences understanding the concept and their own scale has three items (with four sub-items for each) including information seeking and decision making, strategy, and outcomes. Each item has four descriptions regarding economic, social, environmental and holistic understanding of sustainability. In this constant sum scale, respondents are asked to distribute 100 points among the four descriptions for each item.

Despite these efforts on the development of measurement instruments related with corporate sustainability, the literature has not provided yet an adequate scale for measuring the main drivers that encourage companies to engage in corporate sustainability practices. Under these circumstances, we designed our own scale with the purposes of this thesis. While developing this unique scale, existing literature, theoretical approaches, empirical results and practical implementations are taken into account. Although the disadvantages of difficulties in analyses and not being user-friendly, we prefer constant sum scaling. One reason of this preference is to compel the respondents to make a trade off among the statements. In other words, respondents are required to devote considerable amount of time and cognitive effort grounded from their knowledge, competence and experience to fulfil the questionnaire. Thereby, biased responses and low variance scores that might be faced by a Likert scale are minimized. The second reason is a structural reason that is related with the nature of the aims of this research. More clearly, in this research we would like to get information from respondents not only for current situation, but also how it was in the past, and how it will be or what the respondent expect it could be in the future. So that, constant sum scale enables us to get respondents' ranking for each item stated on rows in term of three different time dimensions stated on columns. In terms of bringing a constant sum scale together with time dimensions in one scale design, we have been inspired by OCAI by Cameron and Quinn (2011). Original version of the OCAI demonstrates "now" in order to get responses for the current situation and "preffered" in order to get responses for the future prospects and expectations. As a contribution, we have also added a column to our

measurement instrument in order to get responses concerning the past experiences of the participants. Therefore, respondents were asked to make judgements for the questions in terms of the past, the current situation, and the future.

We developed a measurement instrument which contains two parts. The first part contains eight questions which have been recognized as main drivers for corporate sustainability and four sub-items for each. Except two sub-items, all of the items and sub-items were adopted from existing literature and Mc Kinsey Global Survey results of 2010 and 2014. In other words, each item was detailed with four sub-items in order to identify the exact driving forces based on the review of existing literature and stated survey results. The respondents were asked to distribute 100 points among the four statements of each item. A respondent could give points from 0 to 100 for each sub-item, provided that the total score should be 100 points. So that, it was allowed to give 100 points to one statement whereas making an equal distribution of 25 points for each statement was also possible. The list of items and sub-items with their reference sources is stated on Table 19.

Table 19: Items and References

Items & Sub-items	References
Creating value for stakeholders	Kotler and Armstrong, 2016; McKinsey, 2014; 2010; Collins et.al., 2007; Lo and Sheu, 2007; Figge and Hahn, 2004; Thorpe and Prakash-Mani, 2003; Morhardt, Baird and Freeman, 2002; Dyllick and Hockerts, 2002Knoepfel, 2001
1- strengthening value chain activities	McKinsey, 2010
2- attracting, motivating, and retaining talented employees	McKinsey, 2010; Lozano, 2009; Thorpe and Prakash-Mani, 2003
3- attracting investors and financial authorities	McKinsey, 2014; Lourenço, Branco and Curto, 2012; Baumgartner and Ebner, 2010; Thorpe and Prakash-Mani, 2003
4- improving brand value	McKinsey, 2010; Collins et.al., 2007; Ginsberg and Bloom, 2004; Thorpe and Prakash-Mani, 2003
Maintaining and improving corporate reputation	GRI, 2016; McKinsey, 2014; 2010; Herzig and Schaltegger, 2011; Lozano, 2009; Collins et.al., 2007; Thorpe and Prakash-Mani, 2003

Items & Sub-items	References
1- improving preferability of products and services	McKinsey, 2010
2- improving customer loyalty	McKinsey, 2010
3- enhancing intangible resources	McKinsey, 2014; Kadıbeşegil, 2007; Roberts and Dowling, 2002
4- providing competitive advantage	McKinsey, 2010
Alignment with organization's business goals	McKinsey, 2014; 2010; Lozano, 2009
1- improving organizational efficiency	McKinsey, 2010; Daub, 2007; Figge and Hahn, 2004; Dyllick and Hockertz, 2002; Hart and Ahuja, 1996.
2- new growth opportunities, new product development	McKinsey, 2010; 2014; Artiach et.al., 2010; Wilson, 2003
3- strengthening competitive position	McKinsey, 2010; Baumgartner and Ebner, 2010; Thorpe and Prakash-Mani, 2003
4- maintaining ethical practices	McKinsey, 2010; Daub, 2007; Michelson et. al., 2004; Van Marrewijik, 2003
Complying with regulations	Altuntaş and Türker, 2012, McKinsey, 2010; Baumgartner and Ebner, 2010; Lozano, 2009; Collins et.al., 2007; Morhardt, Baird and Freeman, 2002; Blum-Kusterer and Hussain, 2001, Dechant and Altman, 1994.
1- meeting environmental regulations	McKinsey, 2010; Howard- Grenville, 2006
2- meeting social regulations and labor standards	McKinsey, 2010; Howard- Grenville, 2006
3- meeting accepted industry standards	McKinsey, 2010; Blum-Kusterer and Hussain, 2001
4- meeting international regulations	Altuntaş and Türker, 2012, Lozano, 2009; Howard- Grenville, 2006

Items & Sub-items	References
Managing risks	McKinsey, 2010; Herzig and Schaltegger, 2011; Lozano, 2009; Bansal and Clelland, 2004; Thorpe and Prakash-Mani, 2003; Knoepfel, 2001; Orlitzky and Benjamin, 2001
1- reducing financial risks by providing corporate transparency	GRI, 2016; McKinsey, 2014; Baumgartner and Ebner, 2010
2- reducing environmental risks through understanding environmental resource constraints	McKinsey, 2010; Daub, 2007; Morhardt, Baird and Freeman, 2002; WCED, 1987
3- reducing social risks through respecting for human rights	McKinsey, 2010; WCED, 1987
4- reducing the risk of entering new markets	McKinsey, 2010; Hart and Milstein, 2003
Sustainability among organizational priorities	McKinsey, 2014; 2010; Bertels, Papania and Papania, 2010; Daily and Huang, 2001
1- Overall corporate strategy	McKinsey, 2014; 2010; Dunphy, Griffiths and Benn, 2003
2- In CEO's agendas	McKinsey, 2014; 2010; Daily and Huang, 2001
3- Leadership's personal interest	McKinsey, 2010; Lozano, 2009; Daily and Huang, 2001
4- In accordance with the advice of the consulting firms	Our own contribution: We observed that many organizations in Turkey issue their sustainability reports in cooperation with a consulting firm.
Lowering costs	McKinsey, 2014; 2010; Pätäri et.al., 2012; Lozano, 2009; Wagner and Schaltegger, 2003; Morhardt, Baird and Freeman, 2002, Schaltegger and Synnestvedt, 2002; Russo and Fouts, 1997
1- increasing recycled resources	Benn, Dunphy, and Griffiths, 2006
2- increasing water conservation	McKinsey, 2010; Hart and Ahuja, 1996
3- increasing energy saving	McKinsey, 2014; 2010; Hart and Ahuja, 1996
4- improving waste management	McKinsey, 2014; 2010;

Items & Sub-items	References
Improving corporate communication	McKinsey, 2014; 2010; Godemann and Michelsen, 2011; Baumgartner and Ebner, 2010; Lozano, 2009; Dyllick and Hockerts, 2002
1- publishing a sustainability section on corporate website	McKinsey, 2010
2- sustainability reporting	Lozano, 2012b; McKinsey, 2010; Dyllick and Hockerts, 2002
3- membership to sustainability organizations	Our own contribution: We observed that more than half of the companies in Turkey that issue sustainability reports are also the members of Sustainable Development Association (Sürdürülebilir Kalkınma Derneği – SKD). Thus, we would like to explore whether the membership is a part of corporate communication strategy.
4- participating in sustainability rankings	McKinsey, 2010

Source: Composed by the researcher

In addition to questions related with corporate sustainability, second part of the measurement instrument was designed to get demographic information. In general, demographics reflect the characteristics of the populations. In this study, we used the term in order to indicate the characteristics of the companies where the respondents work at. Questions in regard to sustainability reporting status (whether the company issues a sustainability report or not), sector (manufacturing or service), type (national or multinational), and annual business volume of the company were asked to the respondents.

The measurement instrument that we developed and used to collect data for this study is presented in the section of Appendix with both English (Appendix 1) and Turkish version (Appendix 2).

5.4. Sample Selection

Population of the research comprises companies that recognize corporate sustainability principles either they have already engaged in corporate sustainability institutionally or they propose implementing corporate sustainability practices in the

near future. So that, our population was very limited. Additionally, in order to gather more accurate information, the sample of the research comprises companies which issue corporate sustainability reports, and companies that have organic linkages with sustainability reporting companies as being conglomerate or group corporations, and production or service providers in the supply chain of sustainability reporting companies although they do not issue sustainability reports. In other words, in parallel with the purposes of the research, we wanted to contact with and get responses from sustainability professionals or business professionals who have experiences on sustainability. Therefore, our sampling comprised companies that have engaged in corporate sustainability practices one way or another.

5.5. Data Collection

In order to test these hypotheses, we collected data using the scale that we developed.

For the purposes of the thesis, we collected data from corporate sustainability focused companies in two stages. At the first stage, the most recent sustainability reports published in 2015 and 2016 of 47 companies operating in Turkey were examined. Contact information stated on sustainability reports in regard to corporate sustainability context was noted. Then, an e-mail that contains the questionnaire of the research with brief information about the aim of the research was sent to all contact people and they were invited to participate in the survey with at least four colleagues related with sustainability concept. In other words, participation with at least five employees who are sustainability professionals from every company was asked for. During the data collection process, two reminders were sent every two weeks following the initial contact. Consequently, 14 companies that issue sustainability report accepted to participate in the research and 62 responses were sent from these companies. 2 questionnaires were excluded as they were incomplete and could not be fulfilled after contacting with the respondents. For this reason, 60 responses from 13 companies were usable.

At the second stage, we asked for support from sustainability professionals that participated in the research at first stage to get into contact with other people who are engaged in sustainability issues professionally. As a result, we succeeded to participate in sustainability professionals' network through snowball effect. We sent

questionnaire form of the research via e-mail. During the data collection process, two reminders were sent every two weeks following the initial contact. Consequently, we received 69 responses from 14 companies that are not publishing sustainability reports at the second stage. Among them, 65 responses from 14 companies were usable.

During both at the first and the second stages of the data collection process, respondents were free to contact with the researchers, in case of a question related with the research. It helped to eliminate misunderstandings in terms of how to make a constant sum distribution or time dimensions, so that we could manage to gather more accurate data. Finally, 126 of 131 responses from 27 companies were subject to the data analysis of this thesis.

6. CHAPTER: DATA ANALYSES AND FINDINGS

In the previous chapter, methodology used in this thesis has been explained in detail. This chapter presents data analyses and findings of research data which was tested using compositional data analysis via newly developed "co.ca" function on the software package R. R codes for co.ca function are demonstrated in Appendix 3. "co.ca" function is our own contribution to the literature that is a modification of the existing correspondence analysis function of "ca" on the software package R developed by Van den Boogaart and Tolosana-Delgado (2013). Research hypotheses have been tested with these analyzes.

Findings respectively present demographics of companies participated in the research, general characteristics in regard to each driver of corporate sustainability, and corporate sustainability drivers' basic features in terms of demographic differences. These findings are presented in the following sections.

6.1. Basic Sampling Characteristics and Demographic Data

As stated in the previous chapter, 27 companies accepted to participate in this research. All of these companies are private, but they operate in several business fields, e.g. energy, pharmaceutical, electronics, logistics, nutrition, textile, automobile, finance, machinery, call center etc. General information about the companies is presented on Table 20.

Table 20: General Company Information

	Sustainability Reporting	Sector	Type	Annual business volume
1	Yes	Manufacturing	National	1 billion and + TL
2	Yes	Manufacturing	Multinational	1 billion and + TL
3	Yes	Service	Multinational	1 billion and + TL.
4	Yes	Manufacturing	Multinational	1 billion and + TL.
5	Yes	Manufacturing	Multinational	1 billion and + TL.
6	Yes	Manufacturing	Multinational	1 billion and + TL
7	Yes	Manufacturing	National	1 billion and + TL.
8	Yes	Service	National	1 billion and + TL.
9	Yes	Manufacturing	Multinational	1 billion and + TL.
10	Yes	Manufacturing	Multinational	1 billion and + TL.

	Sustainability Reporting	Sector	Type	Annual business volume
11	Yes	Manufacturing	Multinational	1 billion and + TL.
12	Yes	Manufacturing	National	1 billion and + TL.
13	Yes	Manufacturing	Multinational	1 billion and + TL.
14	No	Service	National	100-499 million TL.
15	No	Manufacturing	National	500-999 million TL.
16	No	Service	Multinational	1 billion and + TL.
17	No	Service	Multinational	500-999 million TL.
18	No	Manufacturing	National	100-499 million TL.
19	No	Manufacturing	Multinational	1 billion and + TL.
20	No	Manufacturing	National	100-499 million TL.
21	No	Service	National	1 billion and + TL.
22	No	Manufacturing	National	100-499 million TL.
23	No	Manufacturing	National	0-49 million TL.
24	No	Manufacturing	Multinational	1 billion and + TL.
25	No	Manufacturing	Multinational	50-99 million TL.
26	No	Manufacturing	National	1 billion and + TL.
27	No	Service	National	0-49 million TL.

In order to interpret data easier, the existing five groups in regard to business volume has been rearranged into two groups as (a) 0-999 million TL. and (b) 1 billion and over TL. Then, frequency and percentage distributions of the demographic characteristics of the dataset are calculated as stated on Table 21.

Table 21: Demographic Characteristics

Demographic Characteristics	Frequency	Percentage
Sustainability Report		
Reporting	13	48,15%
Not Reporting	14	51,85%
Sector		
Manufacturing	20	74,07%
Service	7	25,93%
Type		
National	13	48,15%
Multinational	14	51,85%
Annual Business Volume		
Less than 1 billion TL.	9	33,33%
1 billion and over TL.	18	66,67%

As Table 21 shows 51.85 % of companies issue sustainability reports whereas 48.15 % has never issued a sustainability report yet. Data indicated that majority of the participants with 74.07% represent manufacturing industry, while 25.93% operate in service sector. It is also revealed that 48.15 % of companies are national private enterprises and 51.85 % of companies are multinational private enterprises that operate in Turkey. Finally, in terms of annual business volume 33.33 % of the companies have less than 1 billion TL, 66.67 % % of the companies have at least 1 billion TL. business volume.

Table 22: Demographic Characteristics for Sustainability Reporting

	Total	Industry		Type		Annual Business Volume	
		Manufacturing	Service	National	Multinational	0-999 million TL.	1 billion + TL.
Reporting	13	11	2	4	9	0	13
Not reporting	14	9	5	9	5	9	5
Total	27	20	7	13	14	9	18

Table 22 reveals the distribution of reporting and not reporting companies in terms of other demographic characteristics. Accordingly, among 13 reporting companies, 11 of them operate in manufacturing sector, 2 of them do business in service sector; 4 of them are national, 9 of them are multinational; and all of them have at least 1 billion TL. annual business volume. As for the not reporting companies, 9 of them operate in manufacturing sector, 5 of them do business in service sector; 9 of them are national, 5 of them are multinational; 9 of them have 0-999 million business volume while 5 of the have at least 1 billion TL. annual business volume.

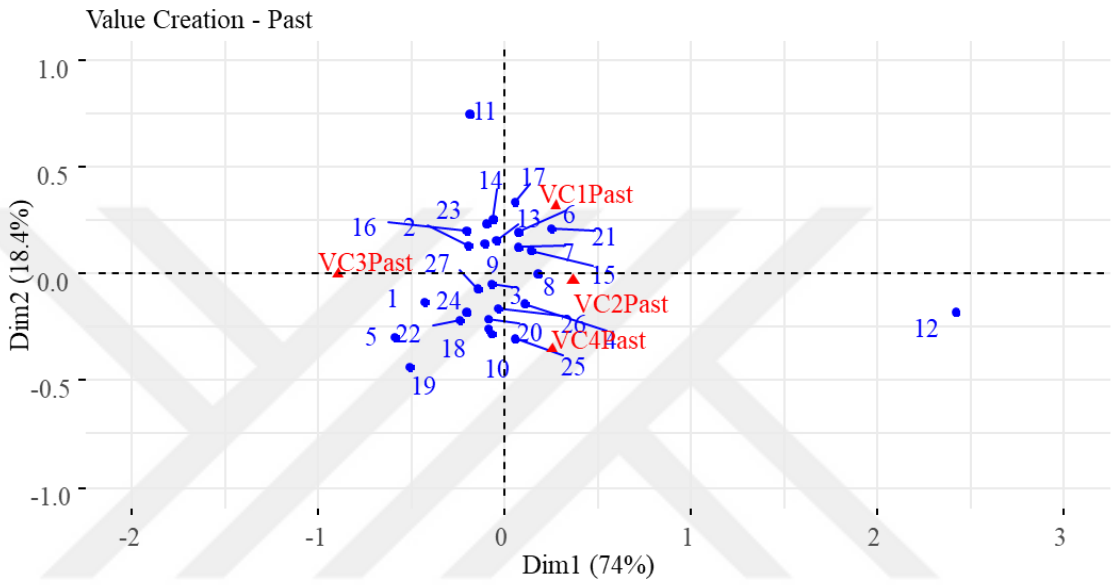
6.2. Findings for Value Creation

Under this topic, judgements of companies regarding to the components related with value creation are discussed.

6.2.1. General Characteristics of Past - Present – Future Assessments

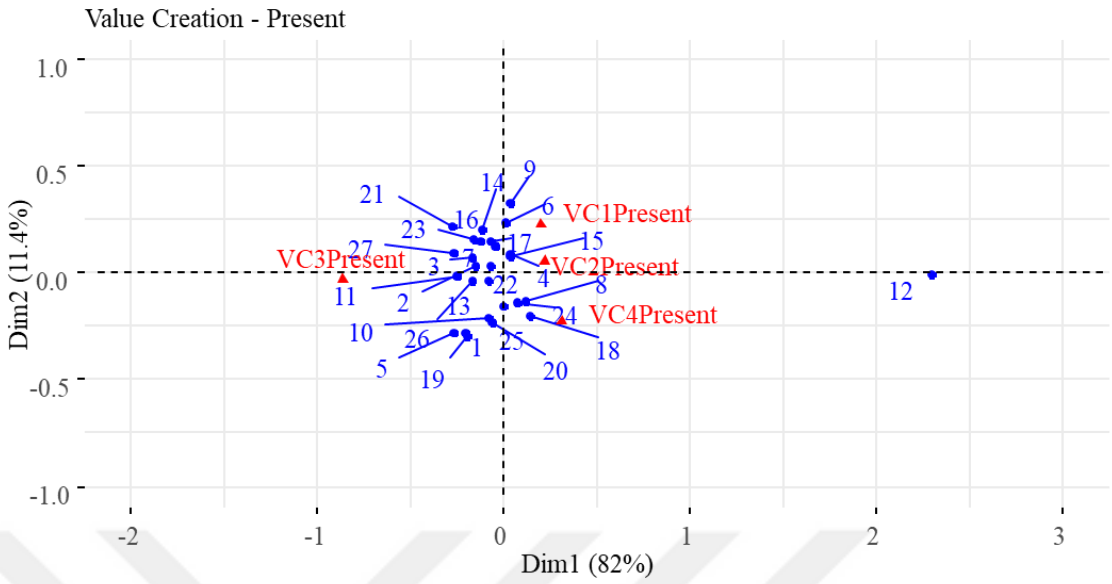
In this section, VC1 symbolizes strengthening value chain activities, VC2 symbolizes attracting, motivating, and retaining talented employees, VC3 symbolizes attracting investors and VC 4 symbolizes improving brand value.

Figure 17: Value Creation - Past



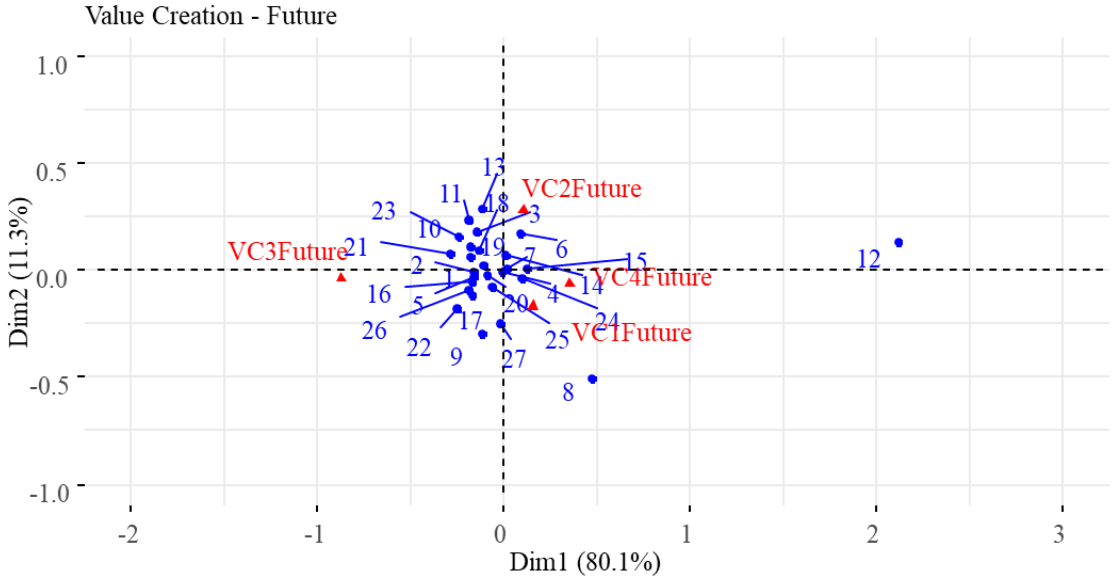
As demonstrated in Figure 17, Dimension 1 has 74 %, Dimension 2 has 18.4 % explanatory power. Total quality of display equals to 92.4 % which is highly satisfactory. As Dimension 1 explains the 74 % of the model, projections of the profiles on Dimension 1 are analysed and accordingly, VC1, VC2 and VC4 are very close to each other. On the other hand, VC3 is situated away from them. Consequently, the biplot reflects that VC3 dominates the model. In other words, there is a negative correlation between VC3 and the other profiles. When the companies demonstrated by blue points are analysed, company number 12 is remarkable. It can be interpreted as an outlier. When the company details are checked, it is seen that although at least 5 participants is asked from each company, due to the excluded questionnaire forms, this company is represented by only one respondent. It might be the reason of being an outlier on this graph.

Figure 18: Value Creation - Present



As it is seen in Figure 18, assessments for the past and the present are almost the same. Profile positioning relative to each other is analogue in both biplot graphs.

Figure 19: Value Creation - Future



As demonstrated on Figure 19, profile projections on Dimension 1 for the future expectations in regard to value creation reflect that VC4 is remarkable that there is a tendency for differentiation following to highly differentiated VC3. In other words, in this biplot, in addition to remarkable differentiation of VC3; VC4 also

presents a differentiation in some degree. Besides, other characteristics are similar to biplots of the past and present.

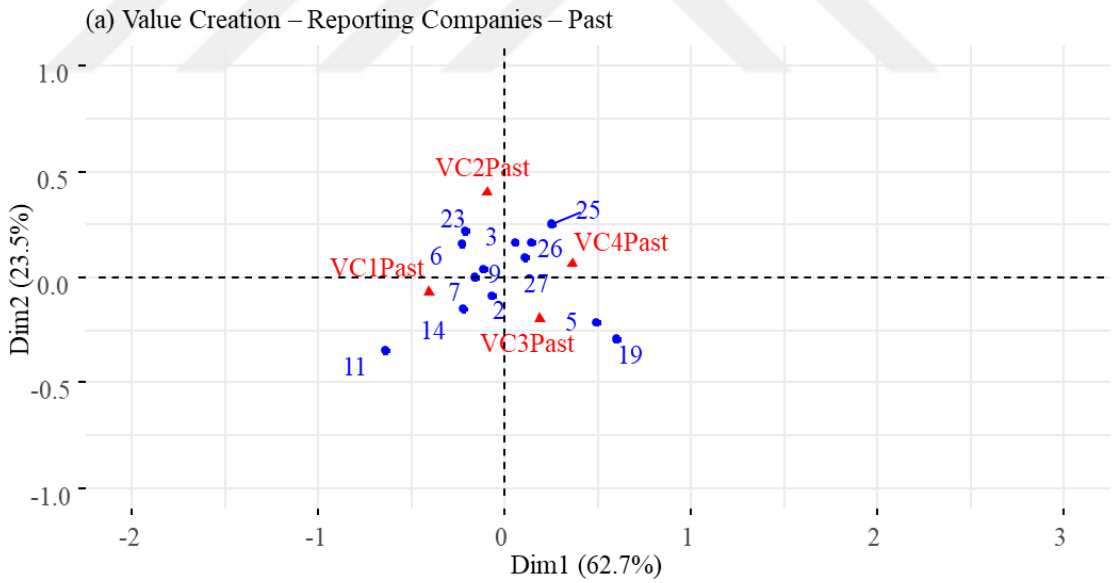
Up to now, general findings of correspondence analysis in regard to value creation were presented by Figure 17, Figure 18 and Figure 19. From this section, findings of groups with different demographic characteristics are analyzed.

6.2.2. Assessments of Reporting vs. Not Reporting Companies

In this section, the extent to which companies' judgements on value creation varies in regard to sustainability reporting status or not.

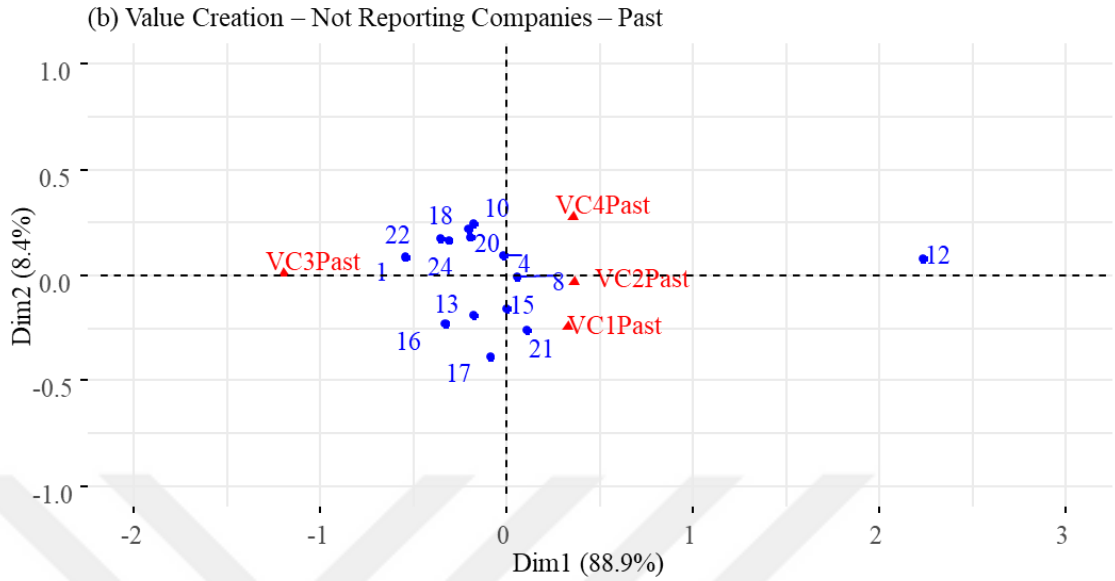
Figure 20 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the past experiences.

Figure 20: Reporting vs. Not Reporting Companies - Past



Biplot (a) of Figure 20 reflects the assessments of reporting companies. For reporting companies, explanatory power of the graph is 86.2 % in general; Dimension 1 has 62.7 %, Dimension 2 has 23.5 % explanatory power. Profile projections of reporting companies both on Dimension 1 in itself and Dimension 2 in itself have almost the same intervals. Only VC2 reflects a differentiation to some degree on Dimension 2. This means that respondents have given similar scores that

are close to each other to all the four sub-item of value creation. Therefore, it can be interpreted that they have a holistic view on the components of on value creation.



Biplot (b) of Figure 20, for not reporting companies, explanatory power of the graph is 97.3 % in general. Dimension 1 has 88.9 %, Dimension 2 has 8.4 % explanatory power. Accordingly, Dimension 2 has more contribution to total explanatory power on the graph representing reporting companies. Profile projections of not reporting companies are similar to Figure 17 which demonstrates the general assessments on value creation for the past without taking any demographic dimension into account. VC3 is differentiated in both. This also means that, Figure 17 is dominated by not reporting companies.

In terms of company profiles, company 11 among reporting companies and company 12 among not reporting companies are situated away from them the others.

Figure 21 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the current situation (present).

As shown on the biplot (a) and biplot (b) of Figure 21, both reporting and not reporting companies' assessments for present are similar to their assessments for the past. There is an increase in explanotory power of Dimension 1 from 62.7 % to 67.4 % for reporting companies. VC1 reflects a differentiation in some degree taking into account its projection on Dimension 1 on this biplot. In addition, VC3 and VC4 have

become closer to each other. For not reporting companies, display for the past and present is almost the same.

Figure 21: Reporting vs. Not Reporting Companies - Present

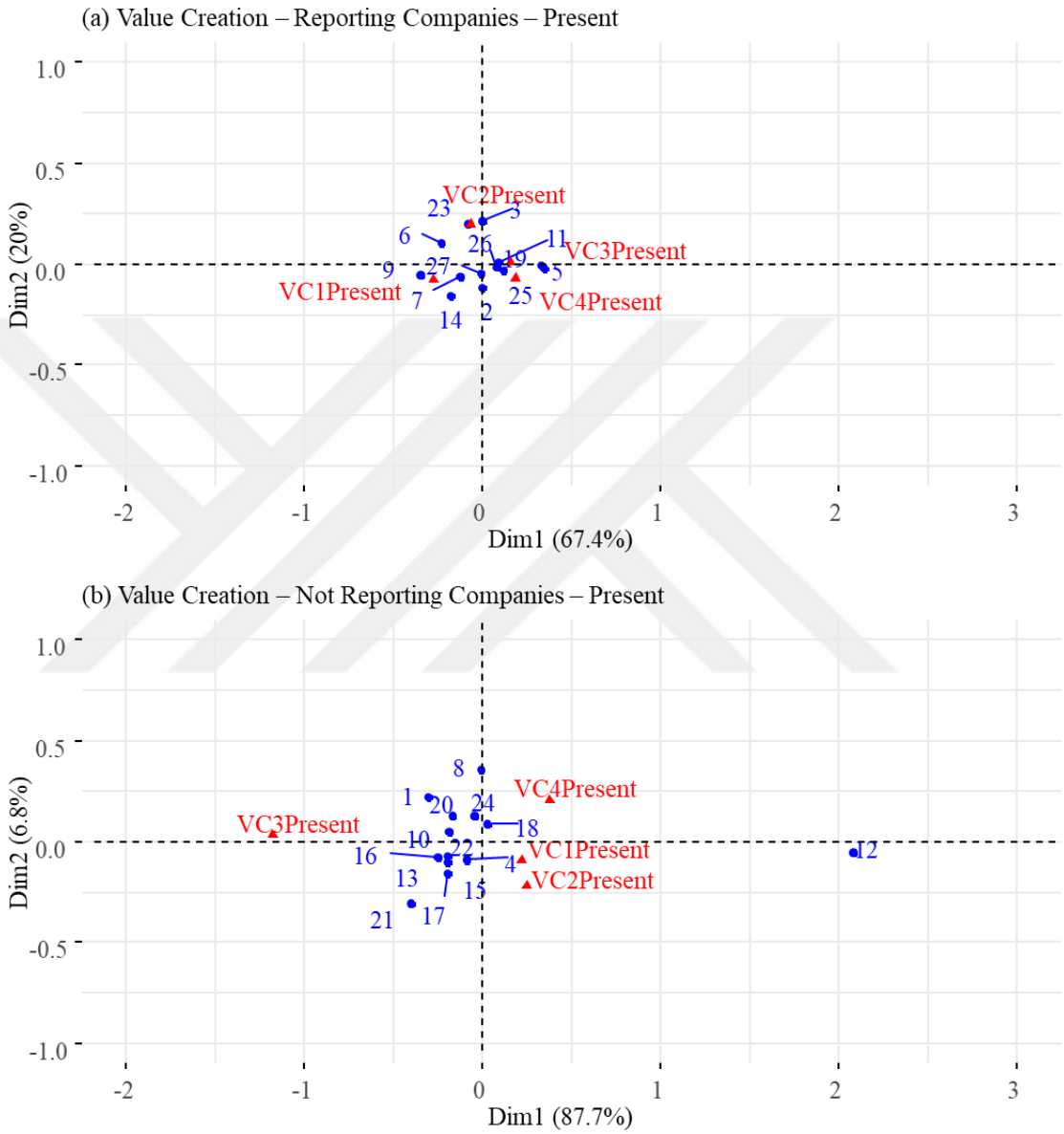
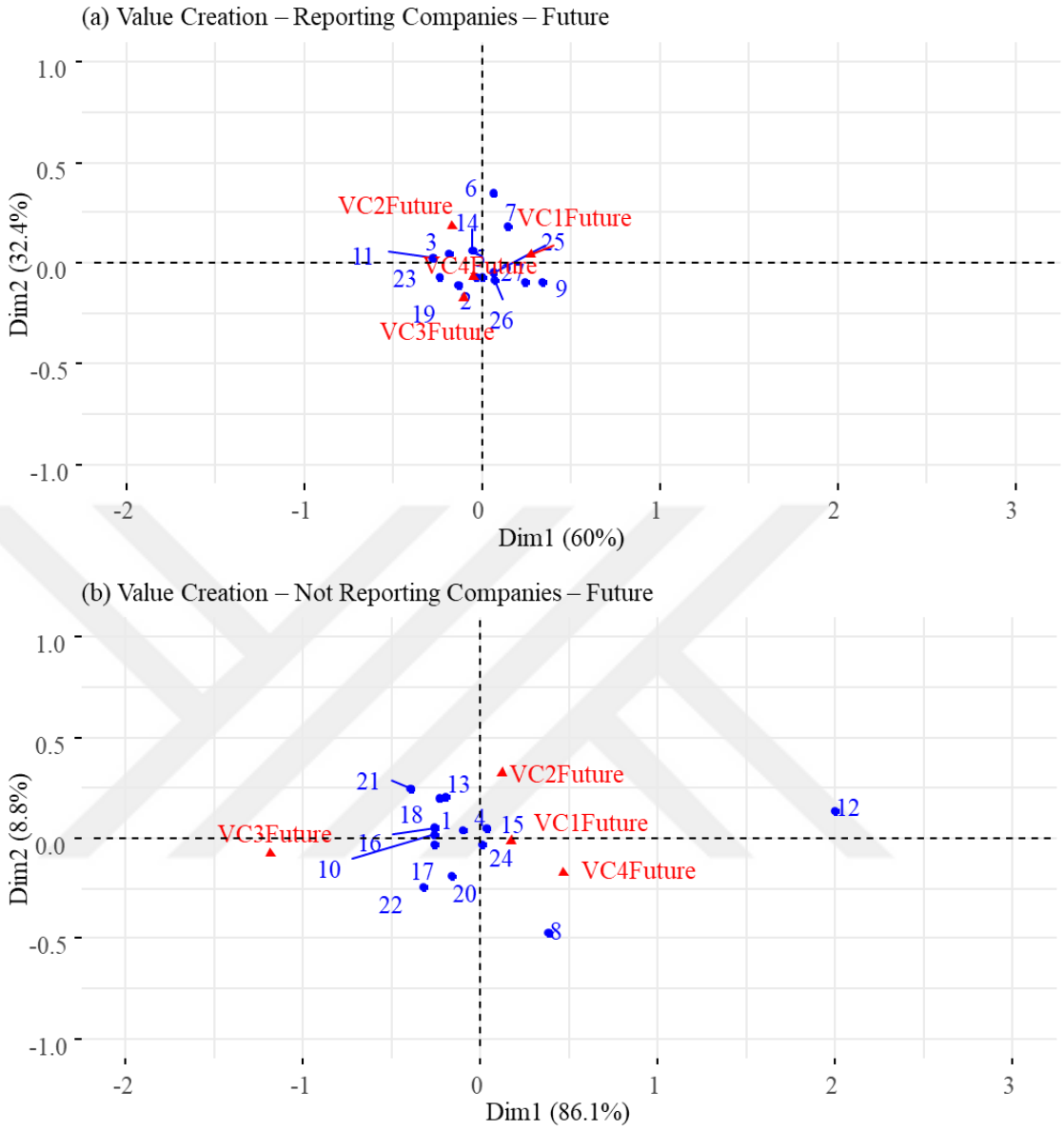


Figure 22 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the future expectations and foresights.

Figure 22: Reporting vs. Not Reporting Companies – Future



In terms of reporting companies demonstrated by biplot (a) of Figure 22, there is an increase in the explanatory power of Dimension 2 with 32.4 % whereas a decrease in the explanatory power of Dimension 1 with 60 % compared to the present assessments. By the way, total quality of the display has increased to 92.4 % which is the highest score among the past, present and the future assessments. In addition, VC4 comes closer to origin which represents the average.

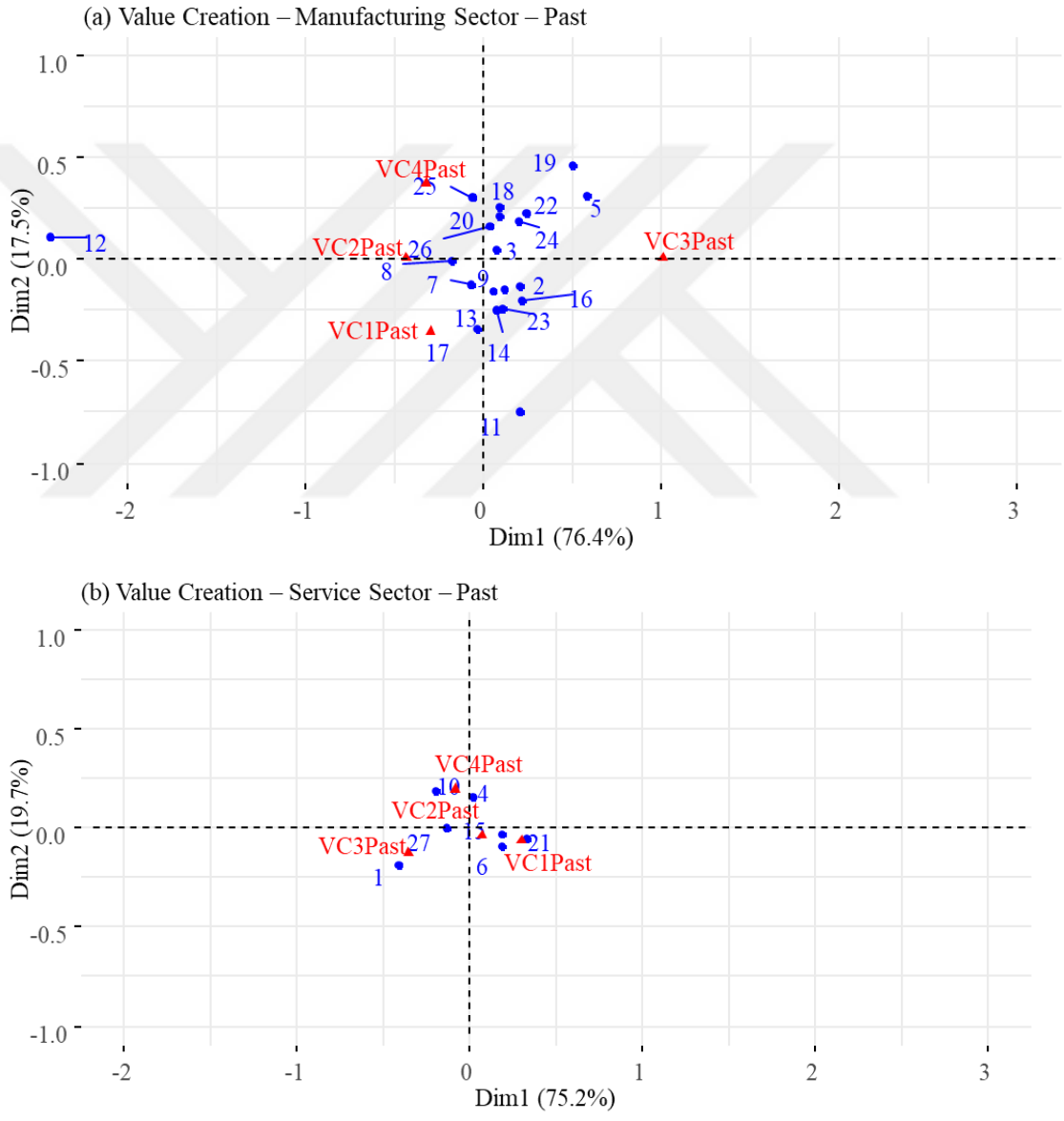
As for the not reporting companies shown by biplot (b) of Figure 22, there is a differentiation in terms of VC4. Other profiles are similar to the assessments for the past and present.

6.2.3. Assessments of Manufacturing vs. Service Sector

In this section, the extent to which companies' judgements on value creation varies in regard to being from manufacturing or service sector.

Figure 23 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the past experiences.

Figure 23: Manufacturing vs. Service Sector - Past



As seen from biplot (a) of Figure 23, Dimension 1 explains the 76.4% of the model whereas Dimension 2 has 17.5 % explanatory power. Projections of red triangles (sub-items of value creation) on Dimension 1 reflect that VC3 differentiates among others in terms of manufacturing firms. The company number 12 is again the

outlier as it was previously witnessed. The only difference in this graph is the change in the positioning of the differentiated sub-item and company on the coordinate axis. However, it does not make sense for interpretation, because what important is that the positioning of the profiles relative to each other.

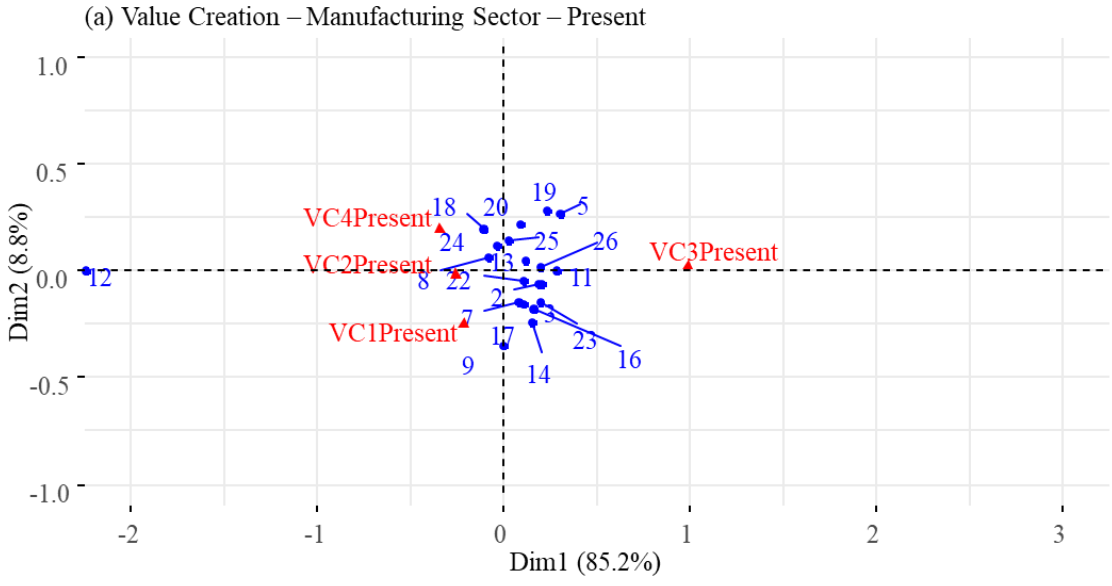
Biplot (b) of Figure 23 shows that in terms of service sector, sub-items are situated as VC3, VC4, VC2 and VC1 with similar and close intervals on Dimension 1. None of the sub-items are differentiated meaning that respondents distribute the 100 points to four sub-items with little differences. As for the companies operating in service sector, it is understood that the company number 1 is differentiated in some degree relative to the others, and this company has relatively loaded to VC3 more than other companies.

Figure 24 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the current situation (present).

Differentiated VC3 case which has been seen in many biplots and explained before is experienced again in terms of manufacturing sector assessments for present.

As for the service sector, explanatory power of Dimension 1 is relatively low to the previous biplots. When the projections on Dimension 2 are evaluated, VC3 reflects a differentiation in some degree again.

Figure 24: Manufacturing vs. Service Sector – Present



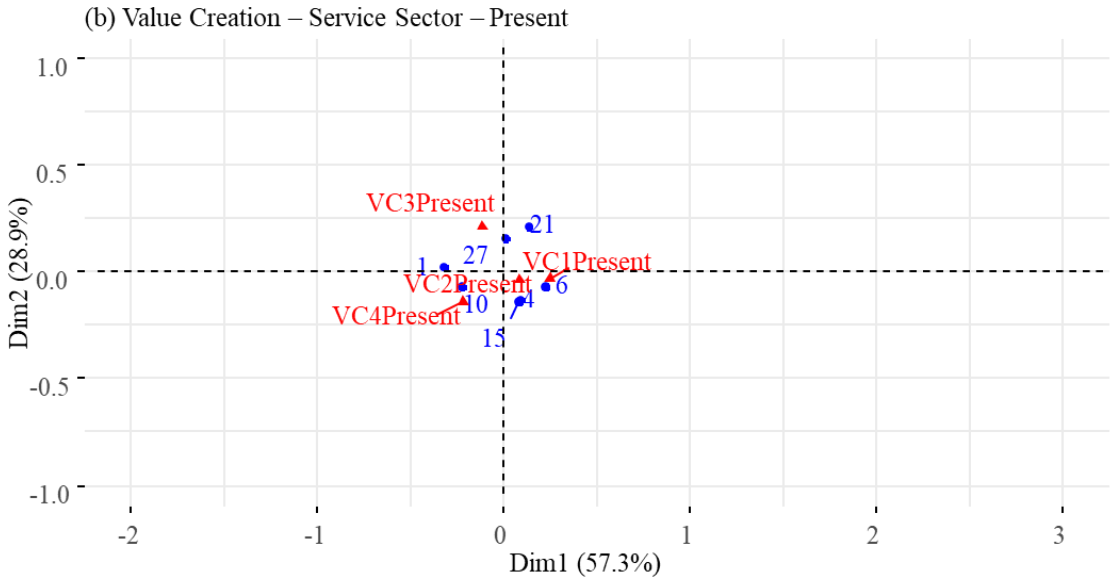
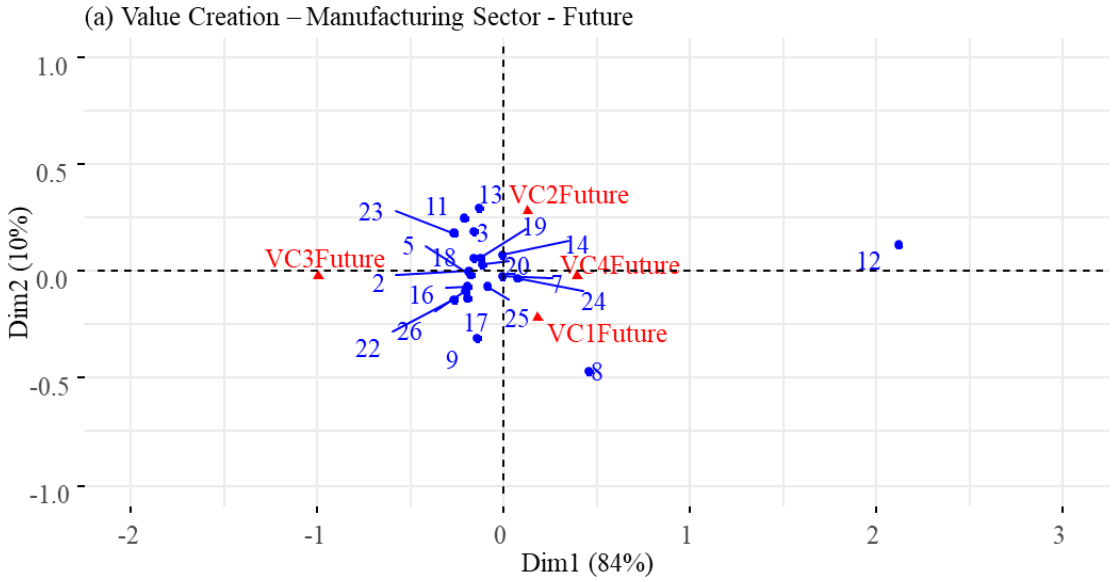
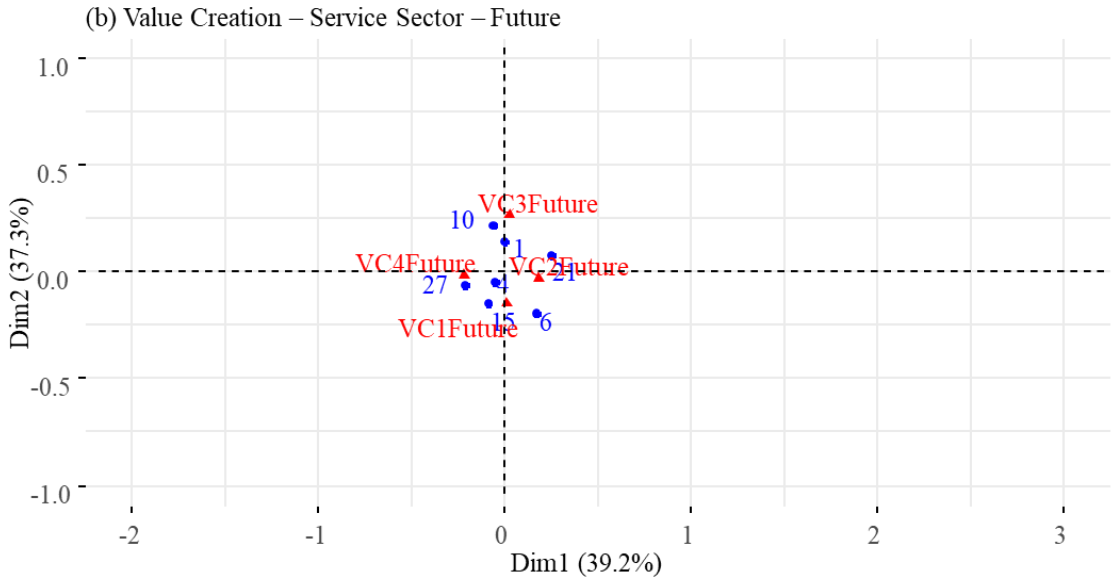


Figure 25 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the future expectations and foresights.

Assessments for the future are very similar to assessments for the past and present in terms of both manufacturing and service sector. Therefore, interpretations are almost the same and there is no additional remarkable finding. In general, distributions in service sector are more homogenous to manufacturing sector.

Figure 25: Manufacturing vs. Service Sector – Future





6.2.4. Assessments of National vs. Multinational Companies

In this section, the extent to which companies' judgements on value creation varies in regard to being national or multinational.

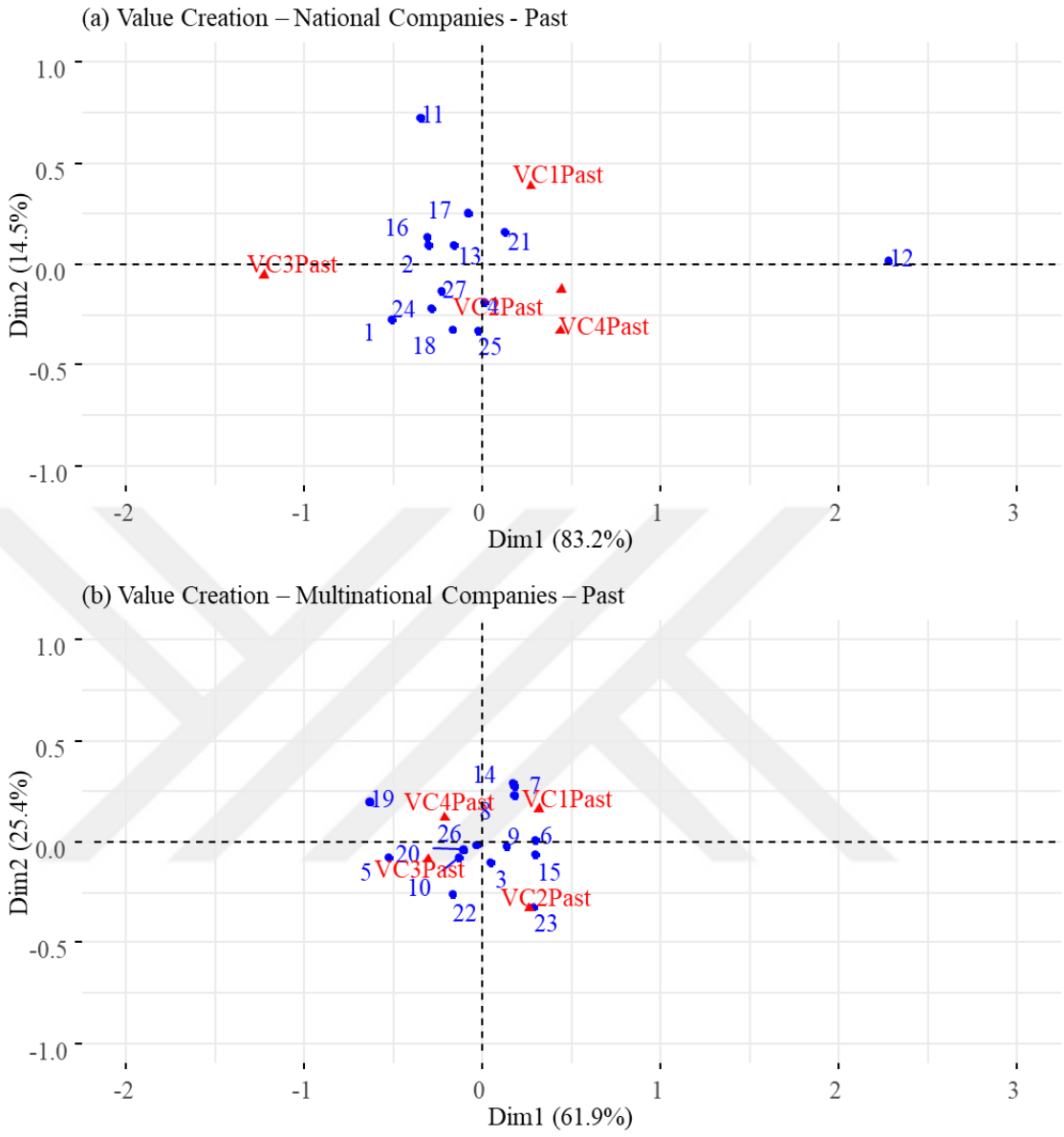
Figure 26 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the past experiences.

In terms of explanatory power of dimension on two biplots, Dimension 1 (83.2%) is relatively higher for national companies (a) than multinational companies (b) (61.9 %).

Projections of profiles on Dimension 1 of the national companies reflect that VC3 and company number 12 are differentiated while projections of profiles on Dimension 2, VC1 and company number 11 are differentiated.

As for the multinational companies, according to the projections of profiles on Dimension 1 and positioning of sub-items, intervals between VC3 and VC4 on the one side and the intervals between VC1 and VC2 on the other side seems more close to each other. In addition, projection of profiles on Dimension 2 p-reflect that VC2 has differentiation in some degree.

Figure 26: National vs. Multinational Companies – Past



Further, Figure 27 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the current situation (present).

Biplot of national companies (a) presents that VC3 is remarkably and VC4 is in some degree differentiated from other sub-items for national companies where Dimension 1 has 93.4 % explanatory power.

With biplot (b), multinational companies' judgements present a different view. In this biplot, Dimension 1 explains the total display with 55 % whereas Dimension 2 has 37.5 % explanatory power. According to the profile projection on Dimension 1, VC1; according to the profile projection on Dimension 2 differentiates.

Company number 12 among national companies and company number 8 among multinational companies are positioned separately among others.

Figure 27: National vs. Multinational Companies – Present

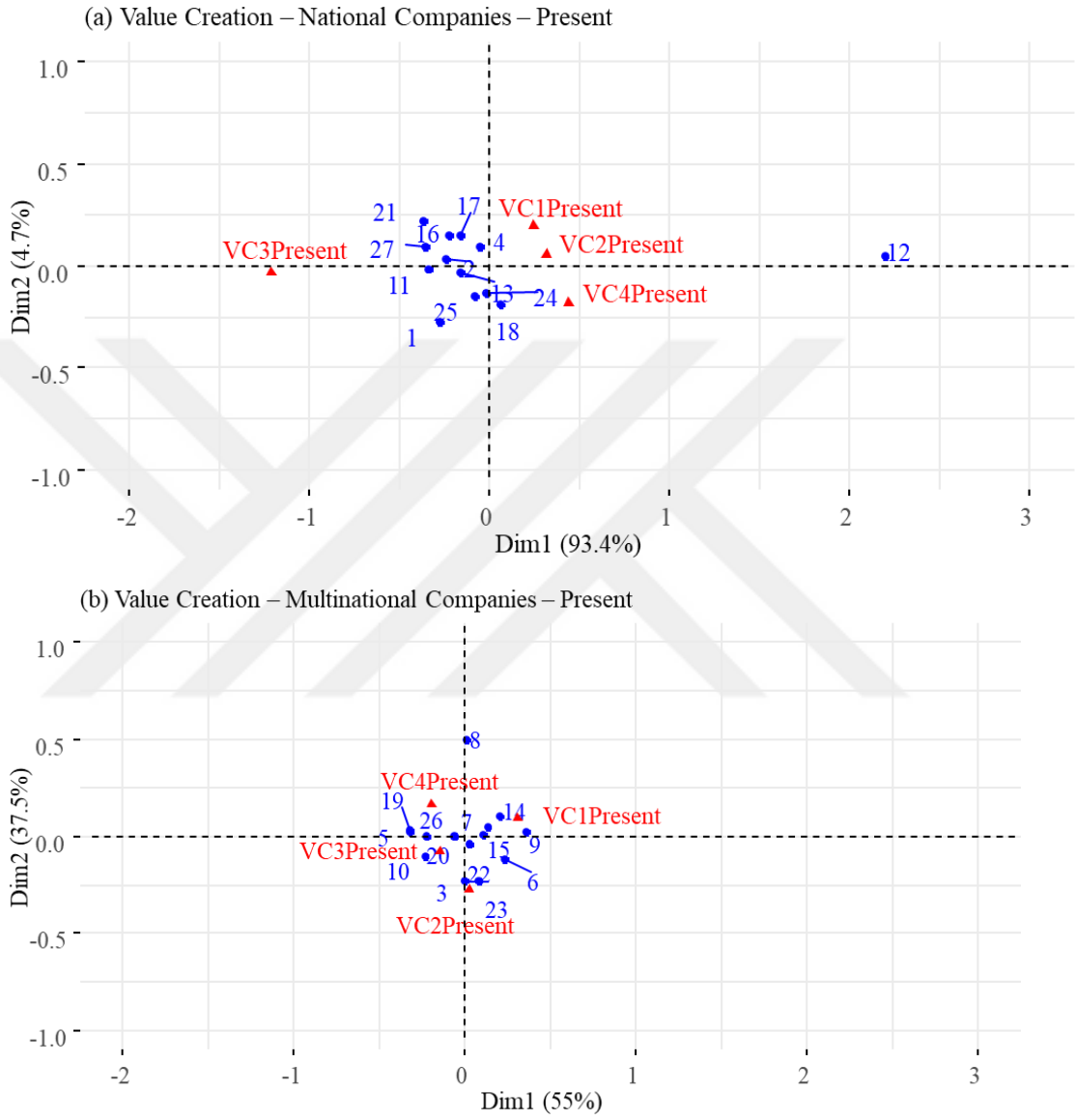
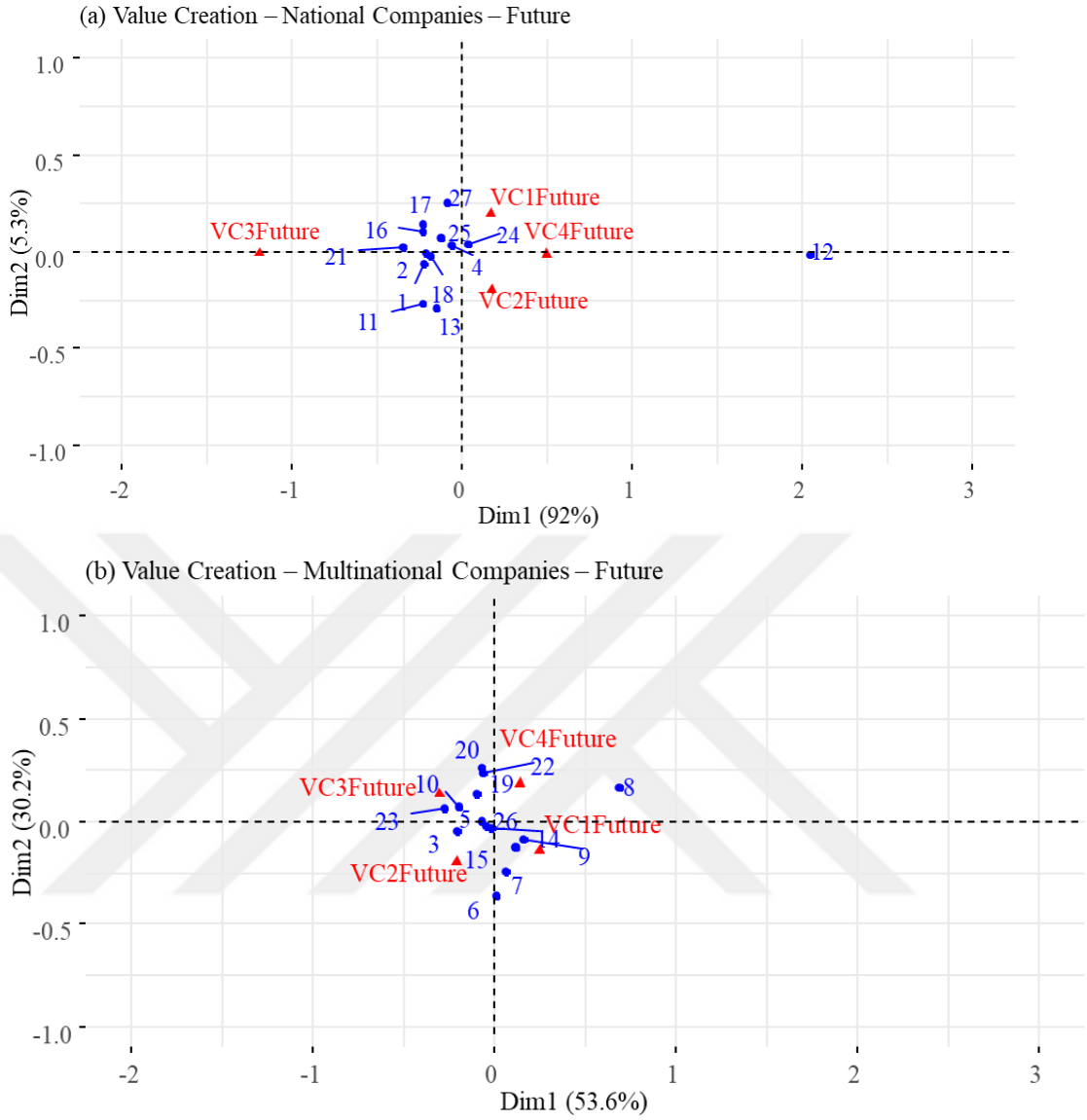


Figure 28 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the future expectations and foresights.

Assessments for the future reveal that, national companies' expectations for the future do not vary from the current situation. On the other side, multinational companies, expect more homogenous and holistic distribution of the sub-items of value creation in the future.

Figure 28: National vs. Multinational Companies - Future

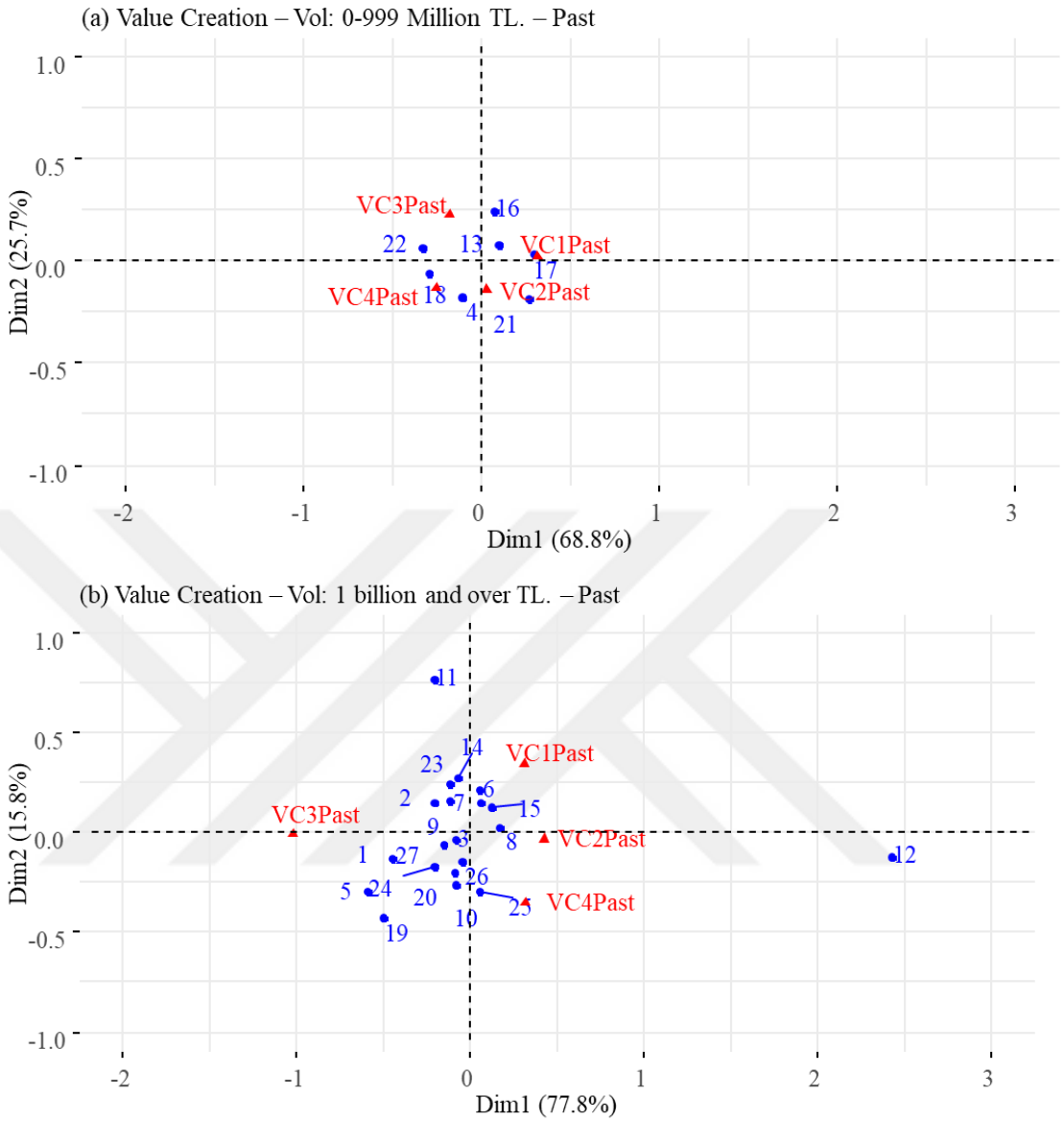


6.2.5. Assessments Related to Business Volume

In this section, the extent to which companies' judgements on value creation varies in regard to annual business volume.

Figure 29 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the past experiences.

Figure 29: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past



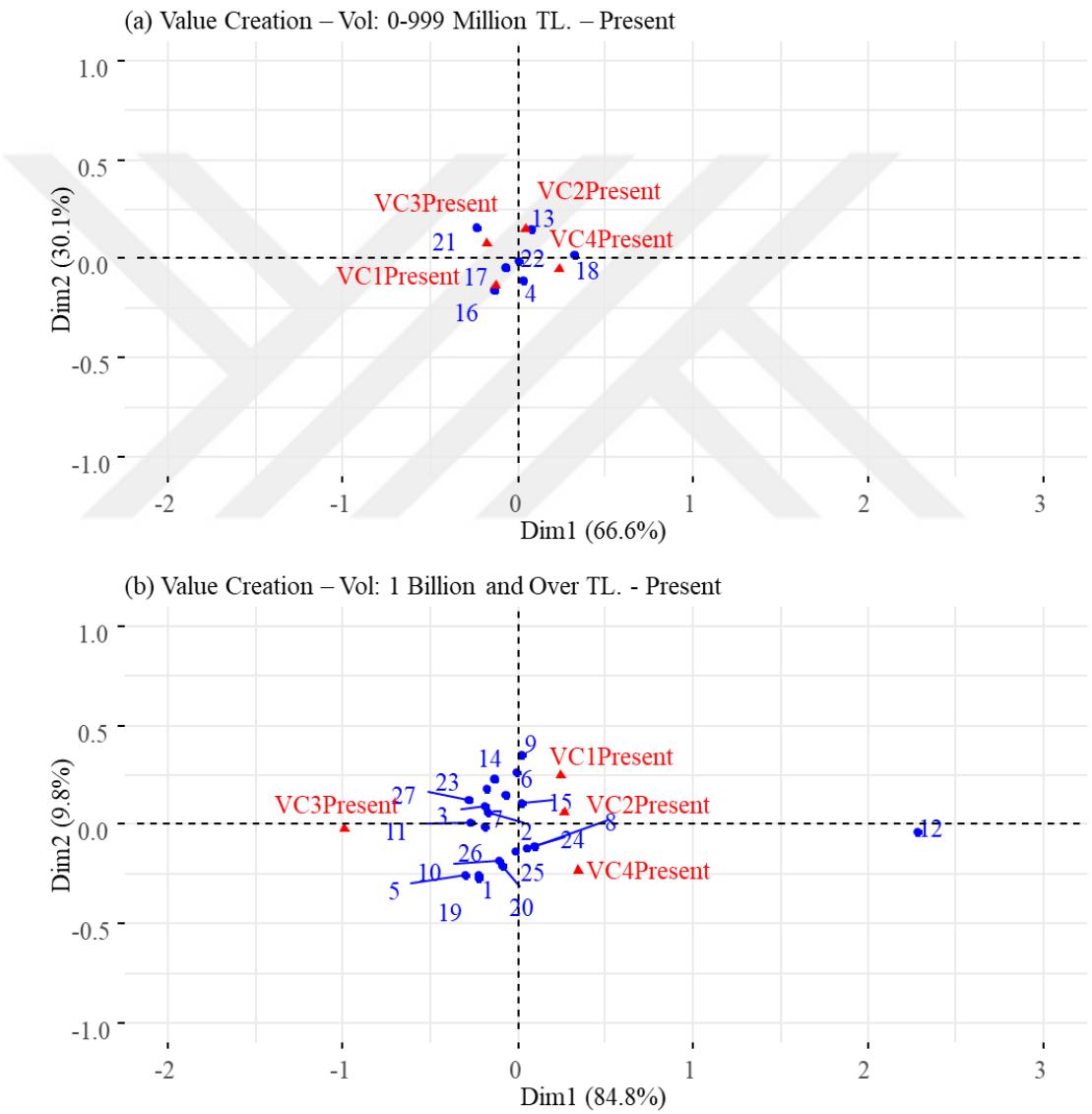
As seen on the biplot (a) of Figure 29, dimension 1 explains the 68.8 % of the model whereas Dimension 2 has 25.7 % explanatory power. Projections of sub-items of value creation on Dimension 1 reflect that VC1 differentiates in some degree among others in terms of companies with less than 1 billion TL. annual business volume. In addition, projections of profiles on Dimension 2 show that VC3 differentiates in some degree as well. None of these companies can be interpreted as differentiated or an outlier.

With biplot (b), companies that have at least 1 billion TL. annual business volume are represented. Dimension 1 explains the 77.8 % of the model whereas Dimension 2 has 15.8 % explanatory power. Projections of profiles on Dimension 1

expresses that VC3 differentiates. In addition to company number 12, company number 11 is also situated away from the other companies.

Figure 30 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the current situation (present).

Figure 30: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present



Unlike from the past, assessments for present reveal that VC4 on Dimension 1 differentiates from other sub-items among companies with less than 1 billion TL. business volume. In terms of projections on Dimension 2, all sub-items are situated close to each other with similar intervals.

Value creation assessments of companies with 1 billion and over TL. business volume seem to be almost the same in terms of the past and present. The only difference in addition to the past interpretations is that VC 4 presents a differentiation in some degree.

Figure 31 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the future expectations and foresights.

Figure 31: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future



As shown on biplot (a) of Figure 31, VC2 is differentiated in some degree on Dimension 1 which explains the total display with 50.2 % whereas VC1 is differentiated in some degree on Dimension 2 which explains the total display with

36.6 % in terms of projection of sub-items of companies with 0-999 million TL. business volume.

Value creation assessments of companies with 1 billion and over TL. business volume for the future are in parallel with the present assessments.

6.3. Findings for Corporate Reputation

Under this topic, judgements of companies regarding to the components related with corporate reputation are discussed.

6.3.1. General Characteristics of Past - Present – Future Assessments

In this section, CR1 symbolizes improving preferability of products and services, CR2 symbolizes improving customer loyalty, CR3 symbolizes enhancing intangible resources, and CR4 symbolizes providing competitive advantage.

As demonstrated in Figure 32, Dimension 1 has 72.1 %, Dimension 2 has 19.8 % explanatory power. Total quality of display equals to 91.9 % which is highly satisfactory. As Dimension 1 explains the 72.1 % of the model, projections of the profiles on Dimension 1 are analysed initially. Accordingly, CR1, CR2 and CR4 are very close to each other. On the other hand, CR3 is situated away from them. Consequently, the biplot reflects that CR3 dominates the model. In other words, there is a negative correlation between CR3 and the other profiles. As for the projections of the profiles on Dimension 2, CR1, CR2 and CR3 are very close to each other. On the other hand, CR4 is situated away from them. Therefore, CR3 and CR4 differentiate themselves from among four sub-items related with corporate reputation.

When the positions of companies are analysed, company number 12, number 11, and number 2 are remarkable. It can be interpreted that company number 12 is the outlier. As for company number 2 and number 11, their projections on Dimension 1 reflect an association with CR3, whereas their projections on Dimension 2 reflect an association with on CR4. Therefore, it can be concluded that the loadings of the responses of company number 2 and 11 dominate CR3 and CR4.

Figure 32: Corporate Reputation - Past

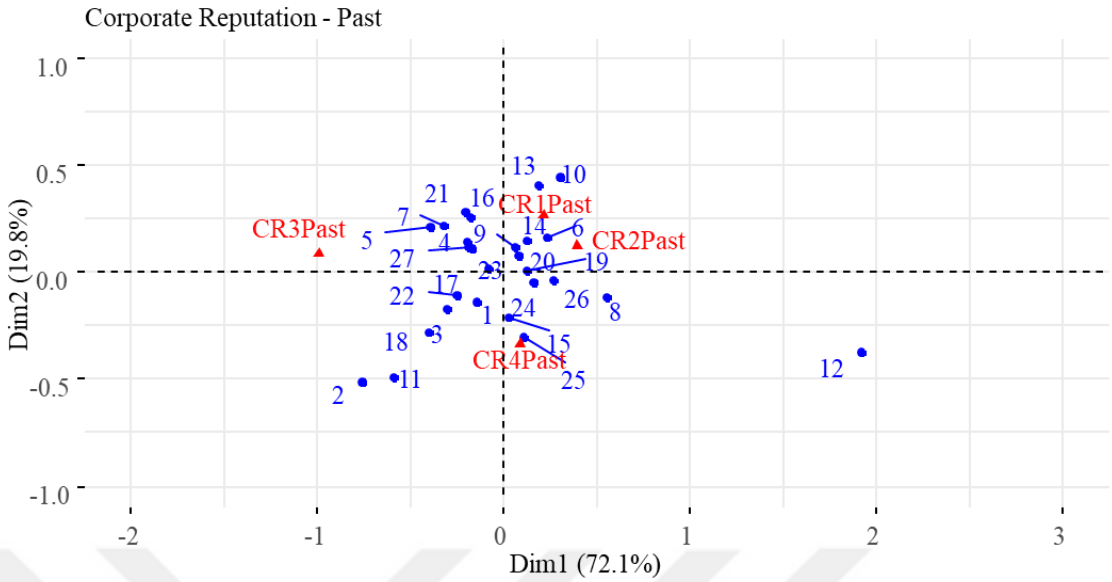
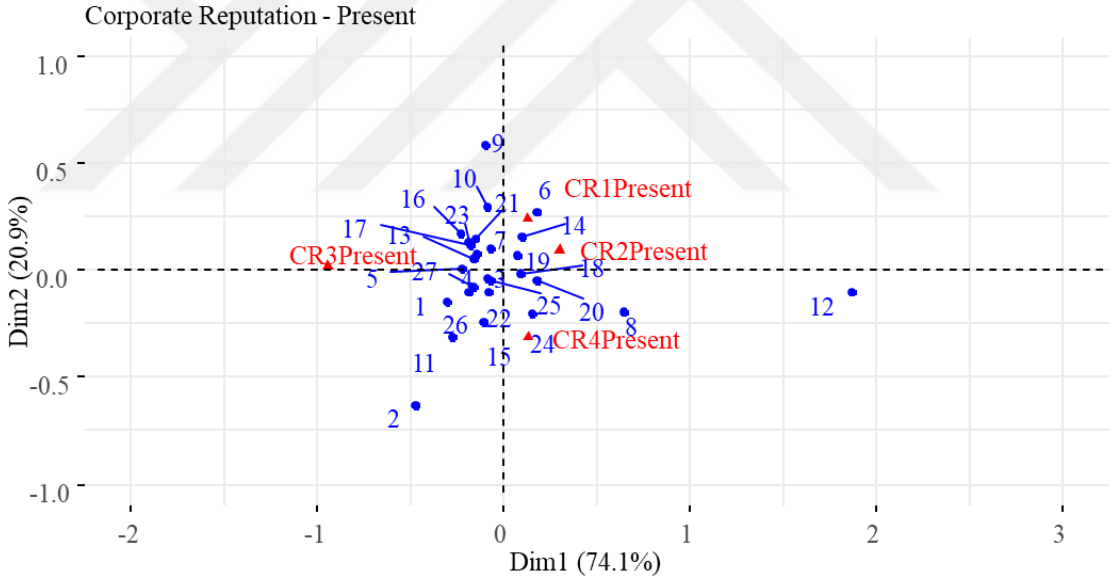


Figure 33: Corporate Reputation - Present



Biplots presented in Figure 32 and Figure 33 look alike. Therefore, it can be interpreted as assessments for the past and present are similar in terms of corporate reputation sub-items. Despite, positioning of the companies varies comparatively in two biplots. Although the assessments for present are different for the companies, the overall display is almost the same with the past.

Figure 34: Corporate Reputation - Future

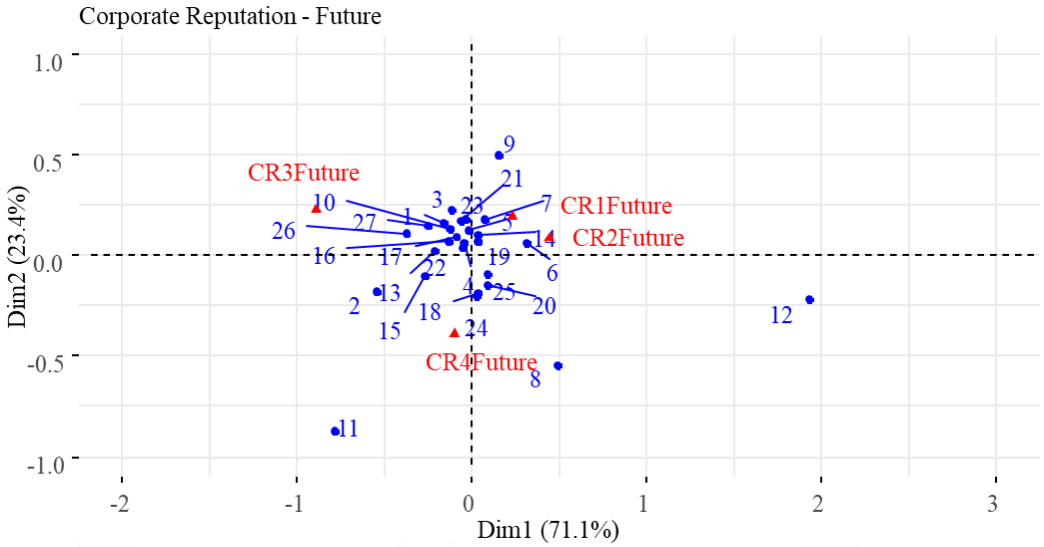


Figure 34 presents the composition of corporate reputation component for the future. The biplot explains the model with 94.2 %. Projections of the profiles on Dimension 1 show that the intervals between CR1, CR2 and CR4 are expanded and CR4 situated away in some degree relatively to the assessments for the past and present. CR3 continues to be away from other sub-items and reflects a high differentiation. As for the projections of the profiles on Dimension 2, CR4 is differentiated.

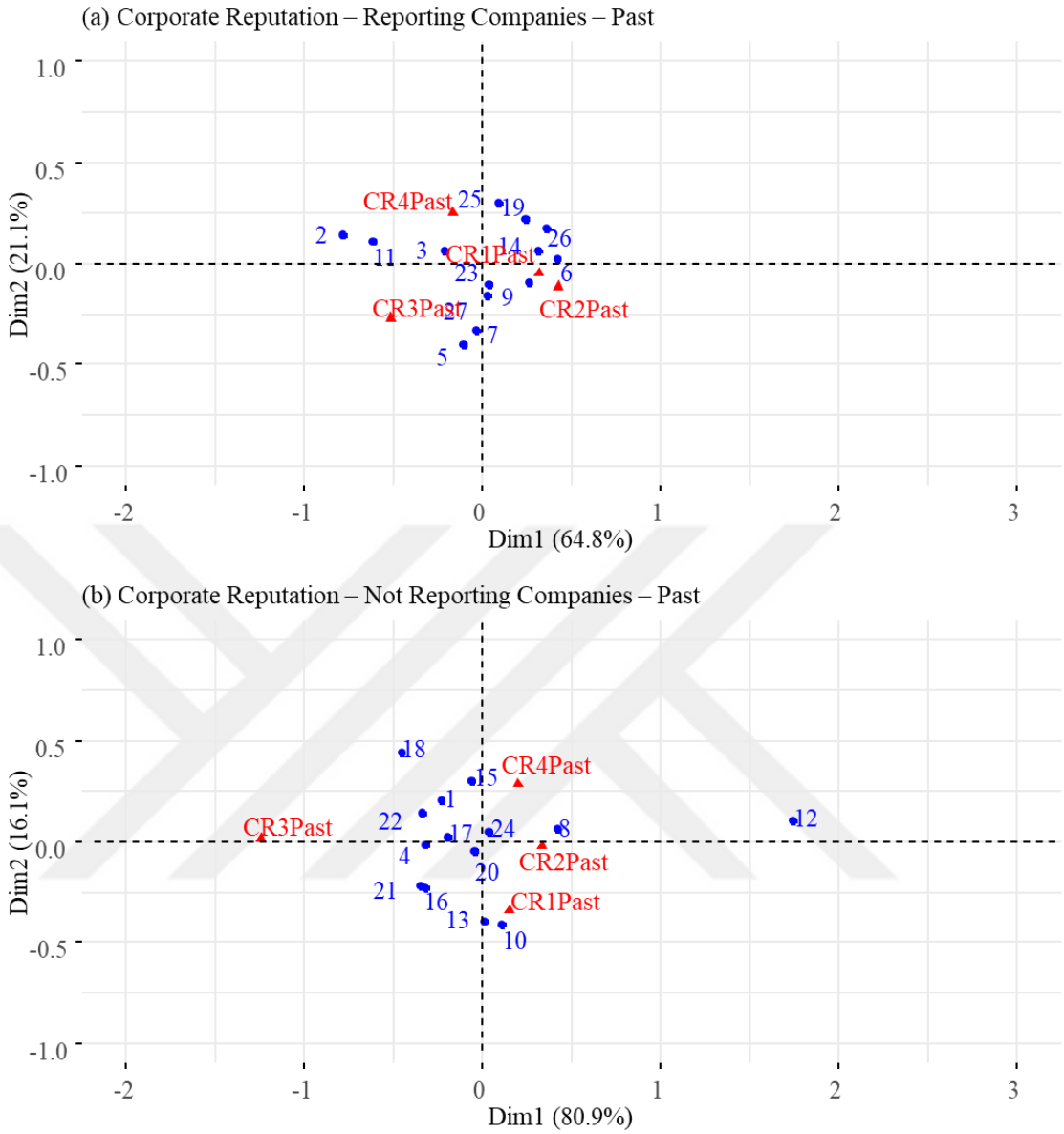
When the positions of companies are analysed, company number 12, number 11, number 9, and number 8 are remarkable and they are situated away from the other companies.

6.3.2. Assessments of Reporting vs. Not Reporting Companies

In this section, the extent to which companies' judgements on maintaining and improving corporate reputation varies in regard to sustainability reporting status or not.

Figure 35 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the past experiences.

Figure 35: Reporting vs. Not Reporting Companies – Past



Assessments of reporting and not reporting companies for corporate reputation are very similar to their assessments for value creation as shown in Figure 20. This similarity for two different concepts can be interpreted as respondents from reporting companies have holistic views on the sub-items while respondents from not reporting companies differentiate specific sub-items in regard to corporate sustainability.

Figure 35 indicates that explanatory power of dimensions in two biplots are different. Biplot (a) reflects the assessments of reporting companies. For reporting companies, explanatory power of the graph is 85.9 % in general; Dimension 1 has 64.8 %, Dimension 2 has 21.1 % explanatory power. Biplot (b), for not reporting companies, explanatory power of the graph is 97 % in general. Dimension 1 has 80.9

%, Dimension 2 has 16.1 % explanatory power. Accordingly, Dimension 2 on biplot (a) of Figure 35 has more contribution to total explanatory power compared to biplot (b).

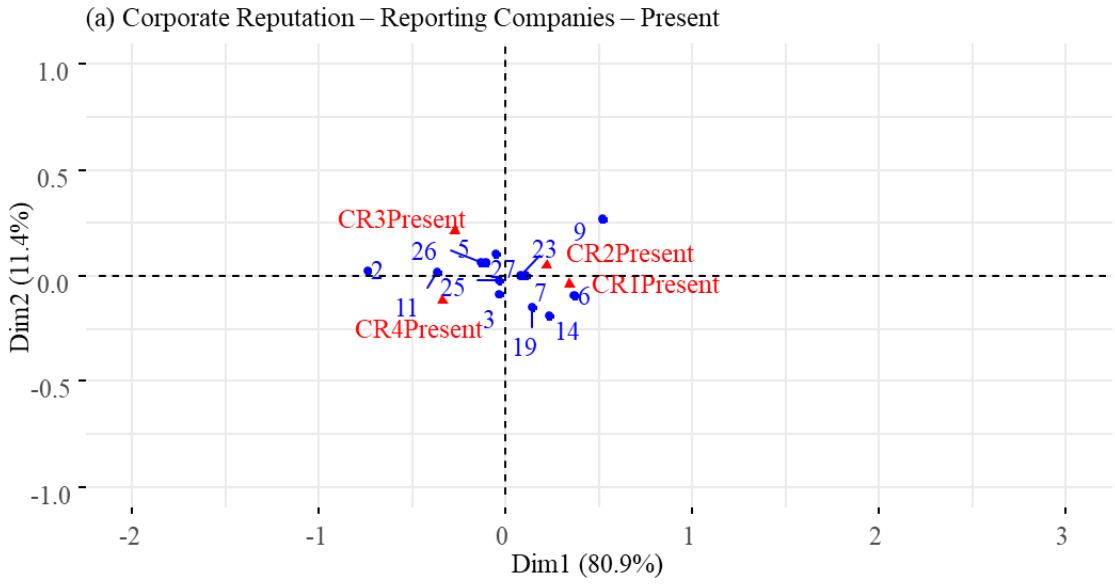
In terms of profile projections of reporting companies on Dimension 1 reveal that CR1 and CR 2 are very close to each other. This means that respondents have given similar scores for CR1 and CR2. CR3 reflects a differentiation to some degree on Dimension 1, whereas CR4 reflects a differentiation to some degree on Dimension 2.

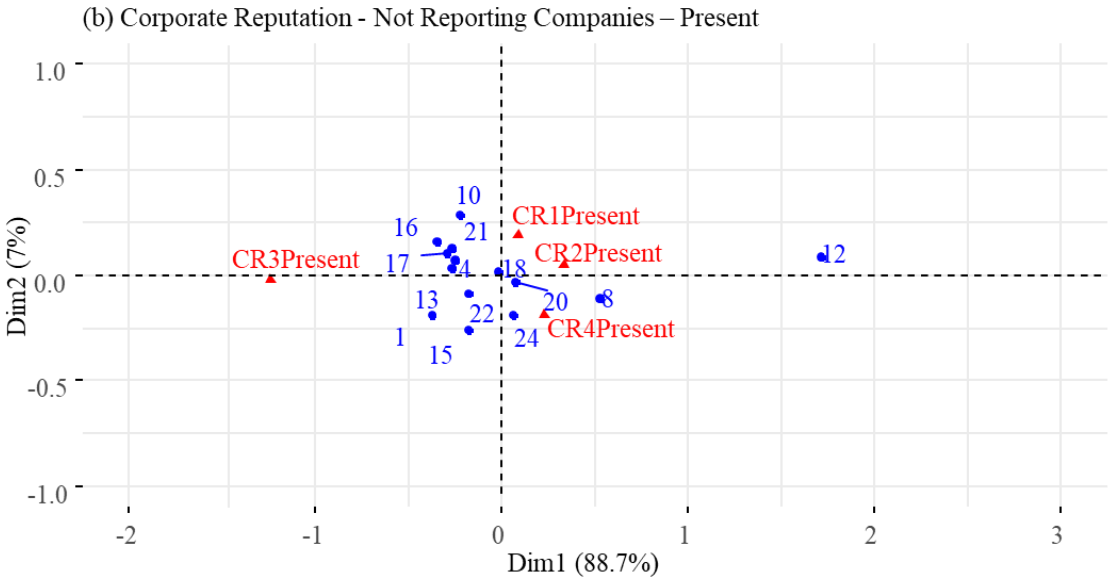
In terms of profile projections of not reporting companies on Dimension 1, CR3 differentiated among other sub-items.

Figure 36 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the past experiences. Assessments figure out the current situation (present).

When the assessments for present is compared with the assessments for the past, it is remarkable that explanatory power of Dimension 1 for reporting companies has increased from 64.8 % to 80.9 % and CR3 and CR4 converge to each other. Assessments of not reporting companies for the past and present are almost the same.

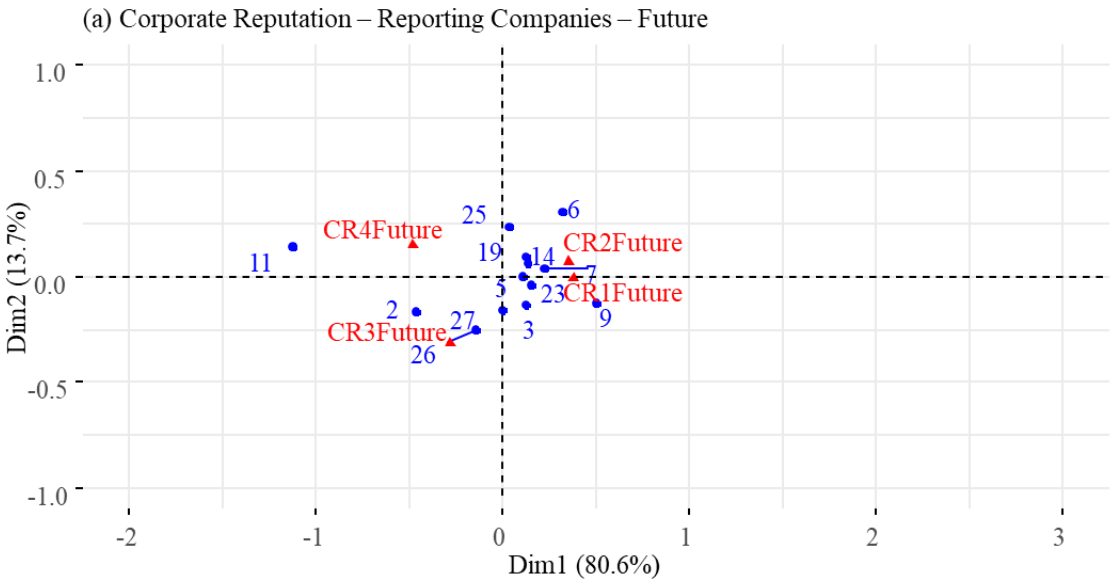
Figure 36: Reporting vs. Not Reporting Companies - Present

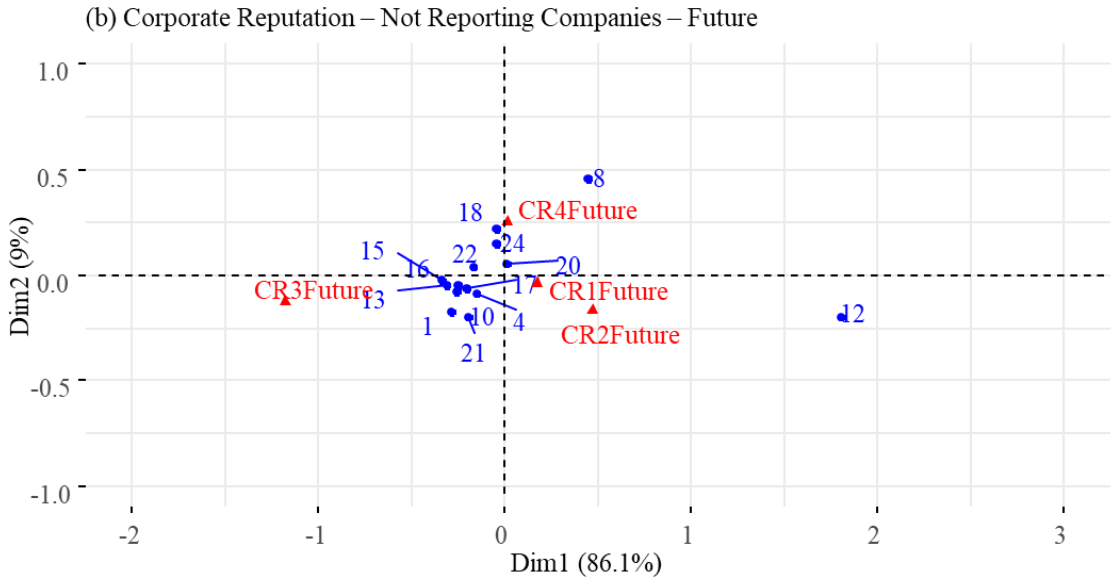




Further, Figure 37 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the future expectations and foresights. Assessments for the future are in parallel with the assessments for present in general. Further, for reporting companies CR4 is differentiated in some degree. When the positions of companies are analysed, company number 12 and number 8 among not reporting companies, and number 11 among reporting companies are remarkable. It can be interpreted that company number 12 and number 11 are outliers. As for company number 8, its projections on Dimension 2 reflect an association with CR4.

Figure 37: Reporting vs. Not Reporting Companies - Future





6.3.3. Assessments of Manufacturing vs. Service Sector

In this section, the extent to which companies' judgements on maintaining and improving corporate reputation varies in regard to being from manufacturing or service sector.

Figure 38 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the past experiences.

Figure 38 indicates that explanatory power of dimensions in two biplots are different. Biplot (a) reflects the assessments of manufacturing sector. Accordingly, explanatory power of the graph is 92.9 % in general; Dimension 1 has 76.5 %, Dimension 2 has 16.4 % explanatory power. Biplot (b), for service sector, explanatory power of the graph is 94.1 % in general. Dimension 1 has 61.6 %, Dimension 2 has 32.5 % explanatory power. By the way, it can be interpreted as Dimension 2 has more contribution to total explanatory power of the biplot (b) representing service sector.

In terms of profile projections of manufacturing sector on Dimension 1 reveal that CR1, CR 2, CR4 are close to each other while CR3 differentiates. This means that respondents have given similar scores for CR1, CR2, and CR4. Differentiation among CR1, CR2 and CR4 can be understood by the projections of Dimension 2. Accordingly, CR4 has a differentiation in some degree.

As for the service sector, projections of profiles on Dimension 1 have similar intervals. CR3 reflects a differentiation to some degree on Dimension 2.

Figure 38: Manufacturing vs. Service Sector – Past

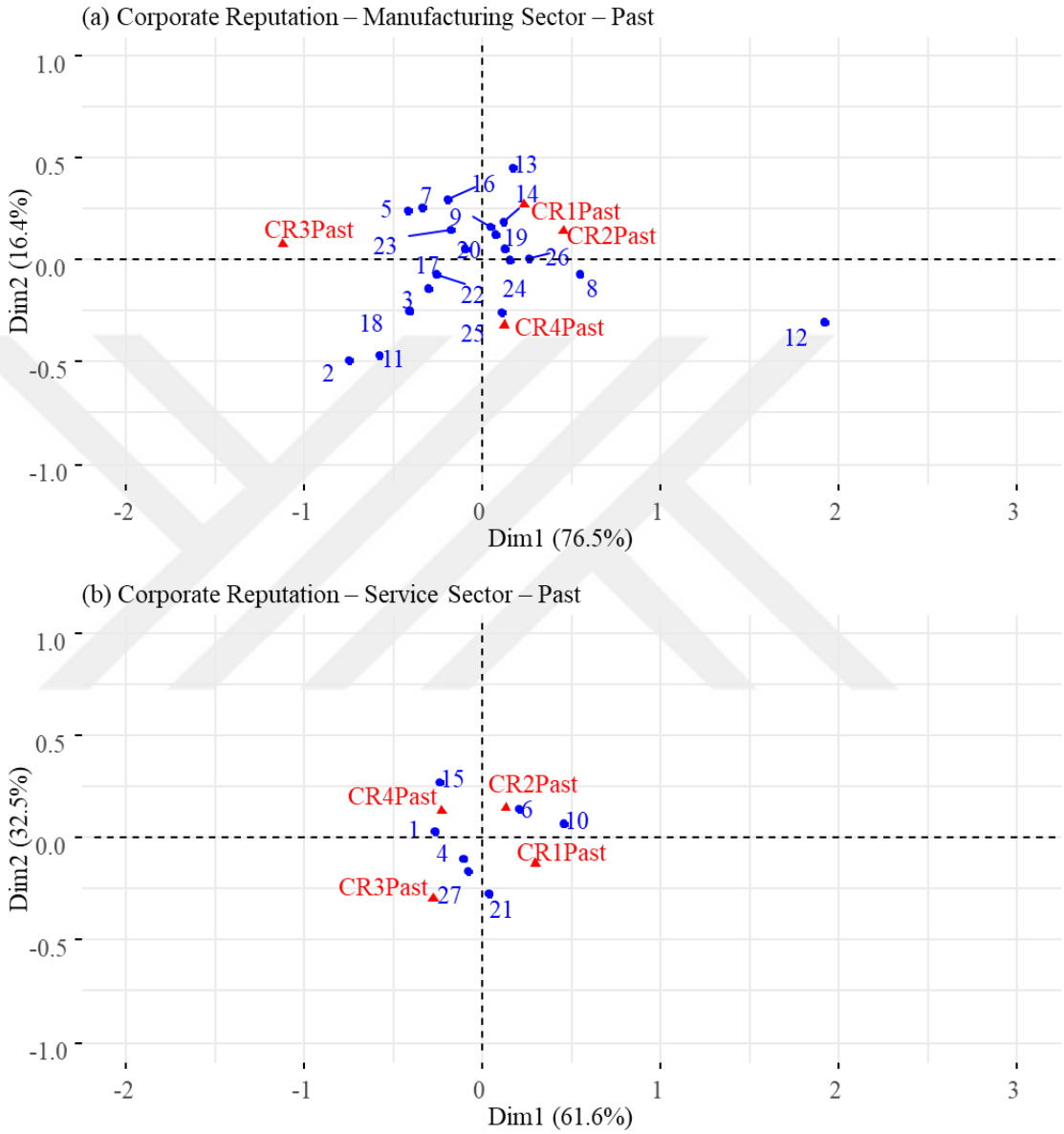


Figure 39 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the current situation (present).

According to the biplot (a) of Figure 39, assessments of manufacturing sector for present are almost the same with the assessments of the past.

Assessments of service sector reflect a shift of CR1 in regard to its projection on Dimension 1. CR1 has increased its differentiation from past to present.

Figure 39: Manufacturing vs. Service Sector – Present

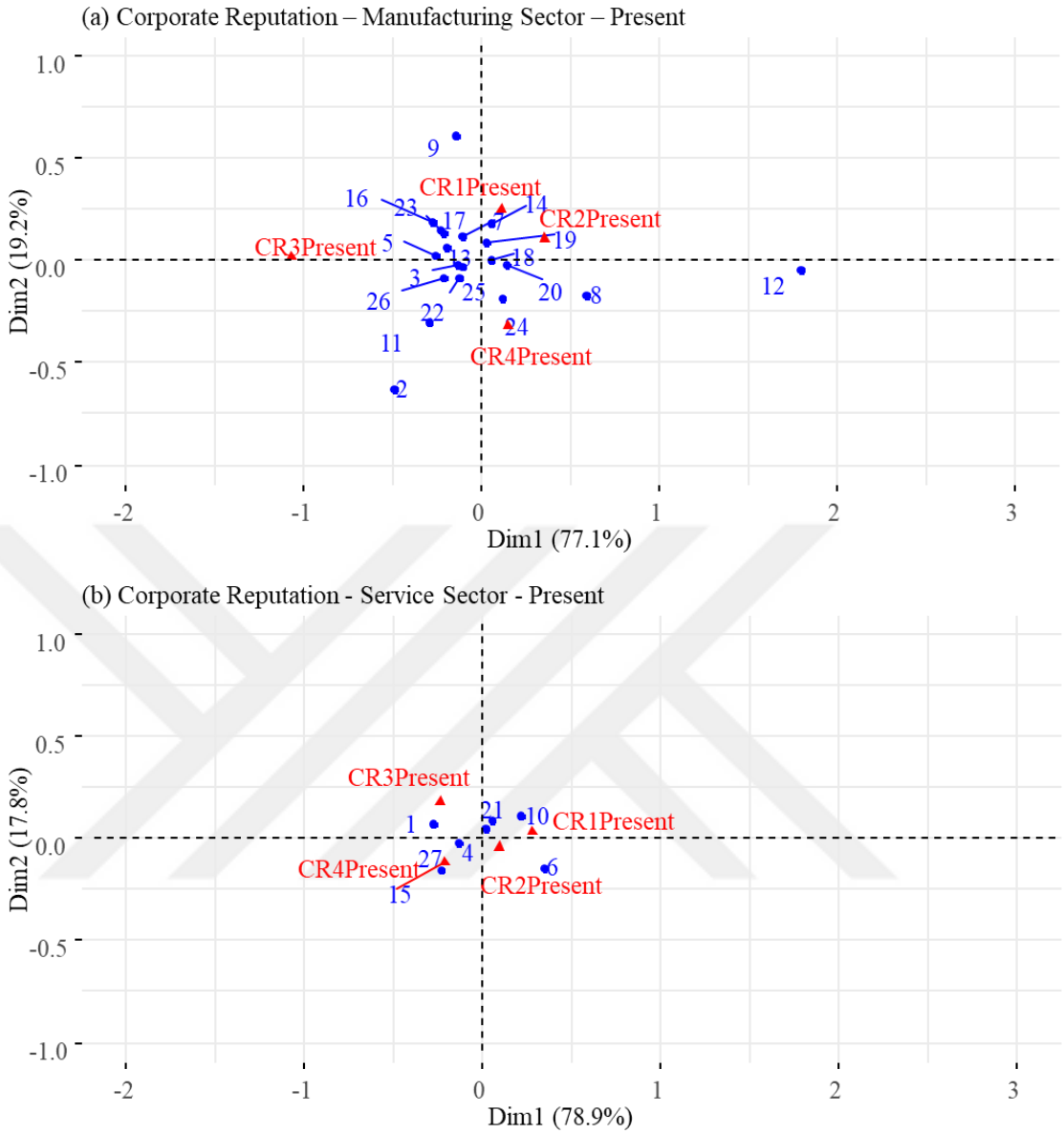
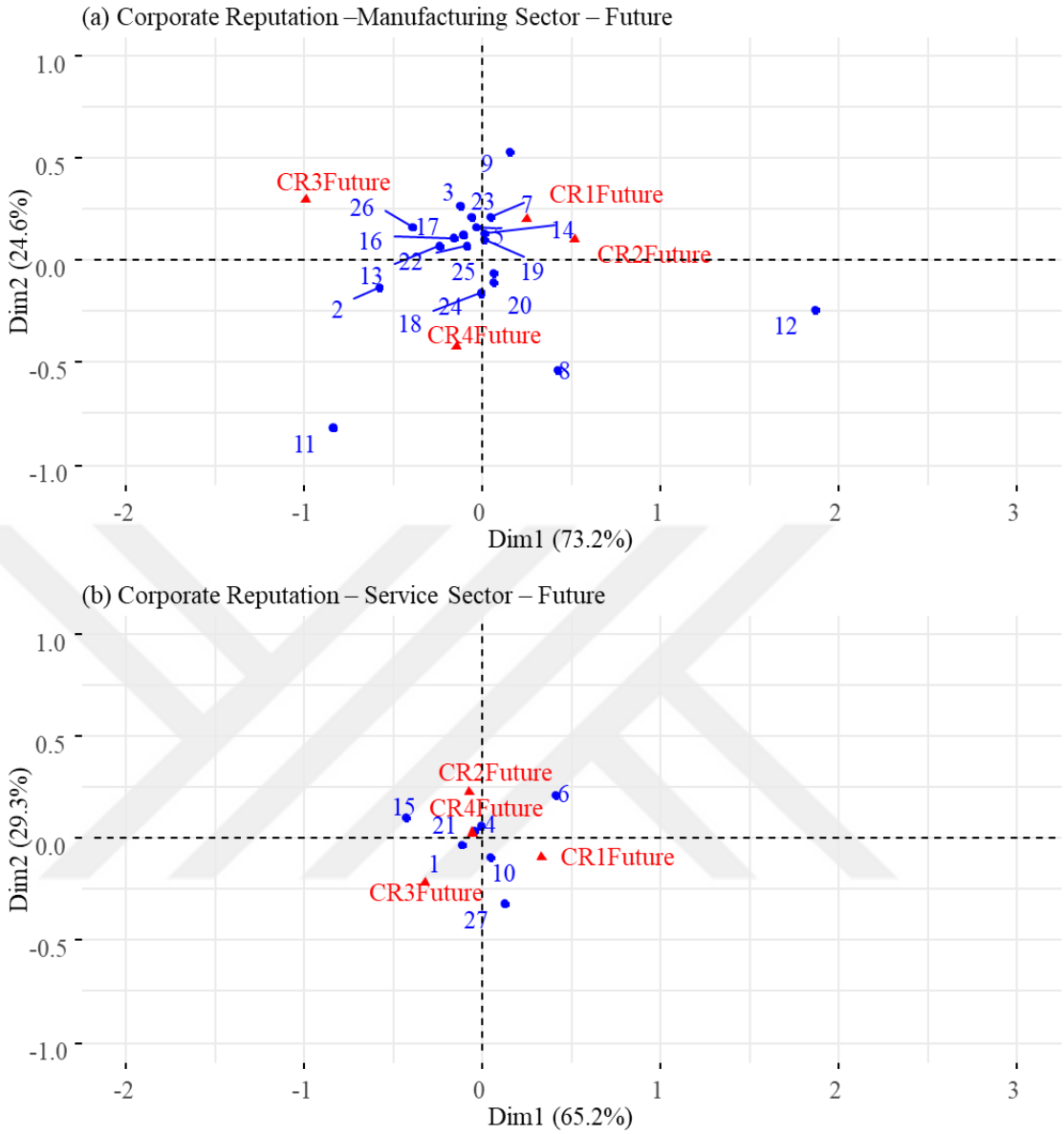


Figure 40 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the future expectations and foresights.

Biplot (a) of Figure 40 indicates that the projections of the profiles seem to have moved away from the origin for manufacturing sector. On Dimenssion 1, in addition to CR3, CR2 has differentiation in some degree. On Dimenssion 2, CR3 differentiates as it does in the past and present assessments.

With biplot (b) of Figure 40, projections of the profiles of CR2 and CR4 have almost the same positioning. CR1 and CR3 have differentiation on this biplot.

Figure 40: Manufacturing vs. Service Sector - Future

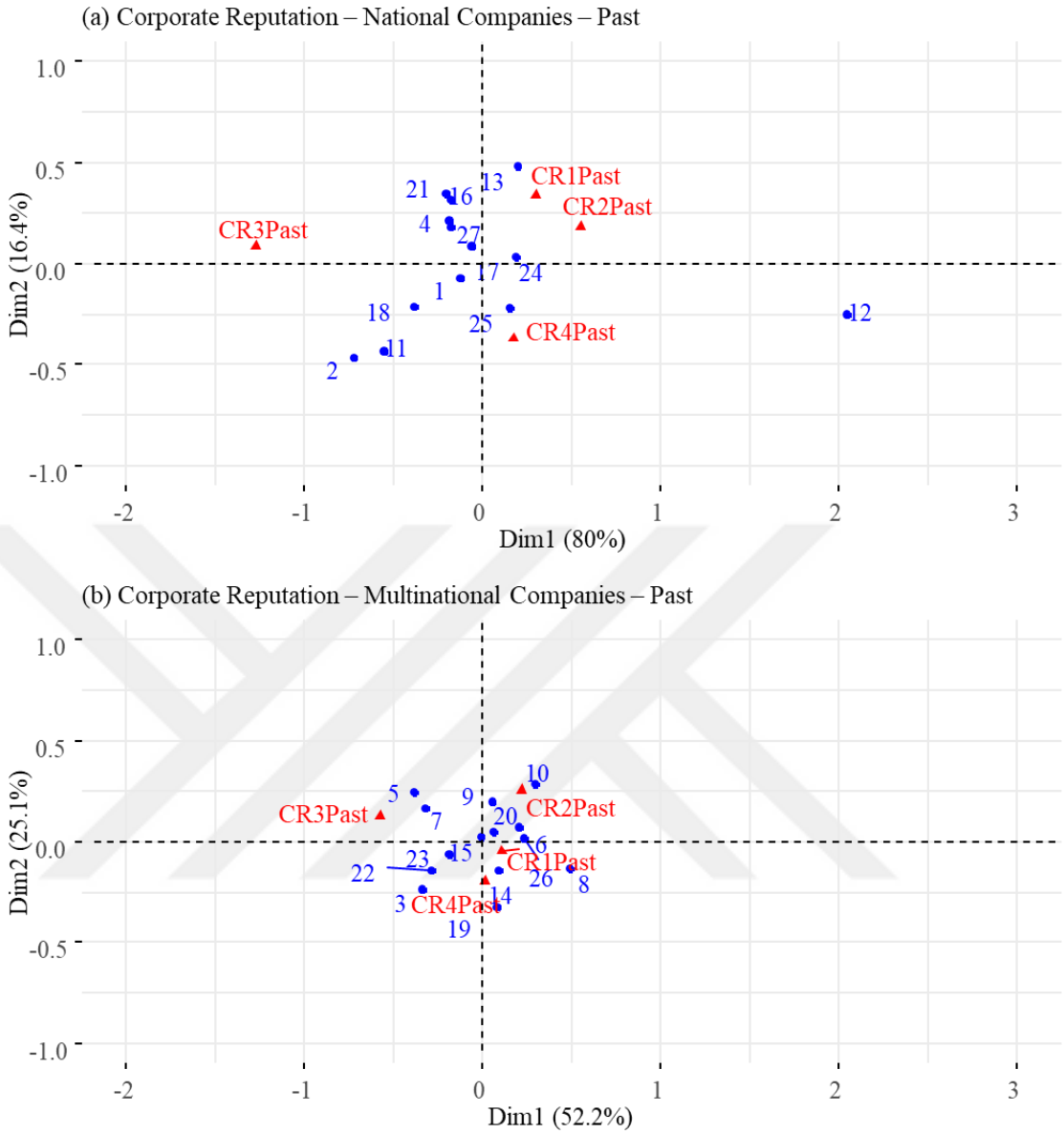


6.3.4. Assessments of National – Multinational Companies

In this section, the extent to which companies' judgements on maintaining and improving corporate reputation varies in regard to being national or multinational.

Figure 41 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the past experiences.

Figure 41: National vs. Multinational Companies – Past

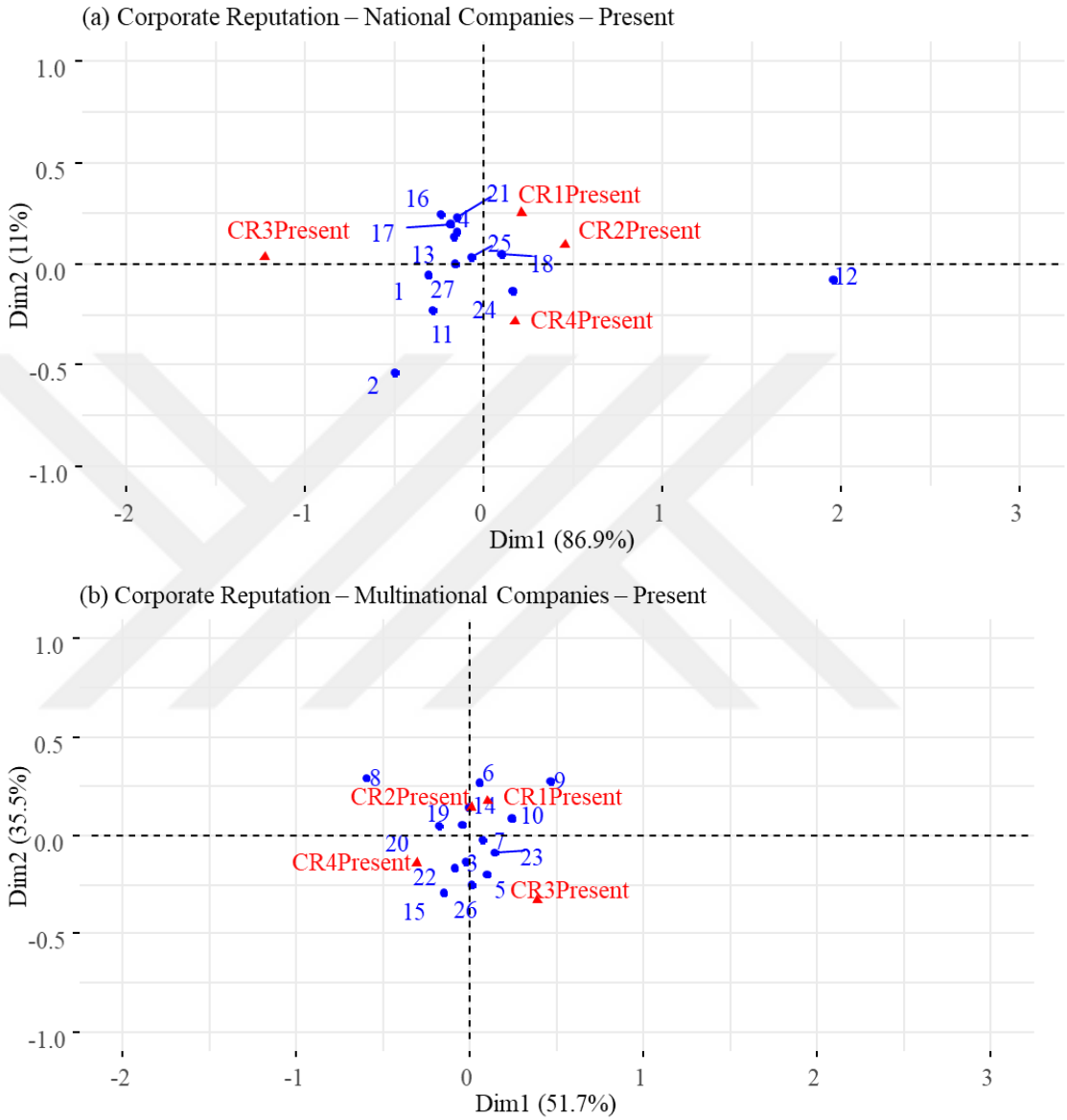


As seen on biplot (a) of Figure 41, Dimension 1 explains the 80 % of the model whereas Dimension 2 has 16.4 % explanatory power. Projections of sub-items of corporate reputation on Dimension 1 reflect that CR3 differentiates among others in terms of national companies. The company number 12 is again the outlier.

In terms of multinational companies presented with biplot (b) of Figure 41, Dimension 1 explains the 52.2 % of the model whereas Dimension 2 has 25.1 % explanatory power. Sub-items are situated as CR4, CR1 and CR2 with similar and close intervals on Dimension 1 while CR3 is differentiated. In terms of projections of profiles on Dimension 2, CR2 is differentiated from others in some degree.

Figure 42 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the current situation (present).

Figure 42: National vs. Multinational Companies – Present



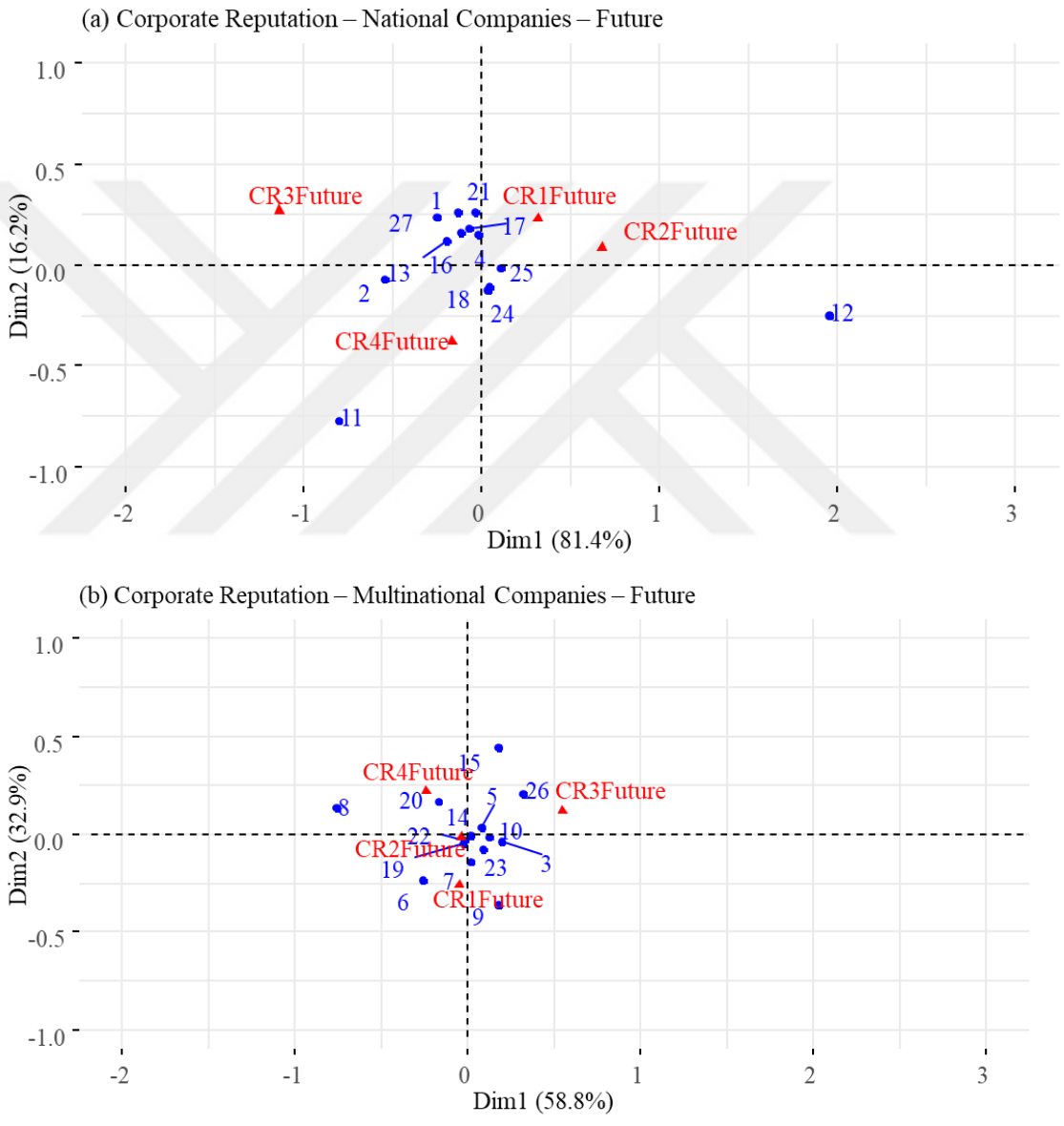
Assessments of national companies for present are almost the same with the assessments of the past.

On the other hand, assessments of multinational companies for present vary from the assessments of the past. As reflected on biplot (b) of Figure 42, Dimension 1 explains the 51.7 % of the model whereas Dimension 2 has 35.5 % explanatory power. Sub-items are situated as CR4, CR2, CR1 and CR3 but CR4 and CR3 situated as differentiated on Dimension 1. In terms of projections of profiles on

Dimension 2, CR3 is differentiated from others in parallel with the assessments of the past.

Figure 43 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the future expectations and foresights.

Figure 43: National vs. Multinational Companies – Future



Projections of profiles on Dimension 1 of national companies which is presented on biplot (a) of Figure 43 imply that CR3 and CR2 have differentiation. Company number 11 and number 12 are situated away from the others.

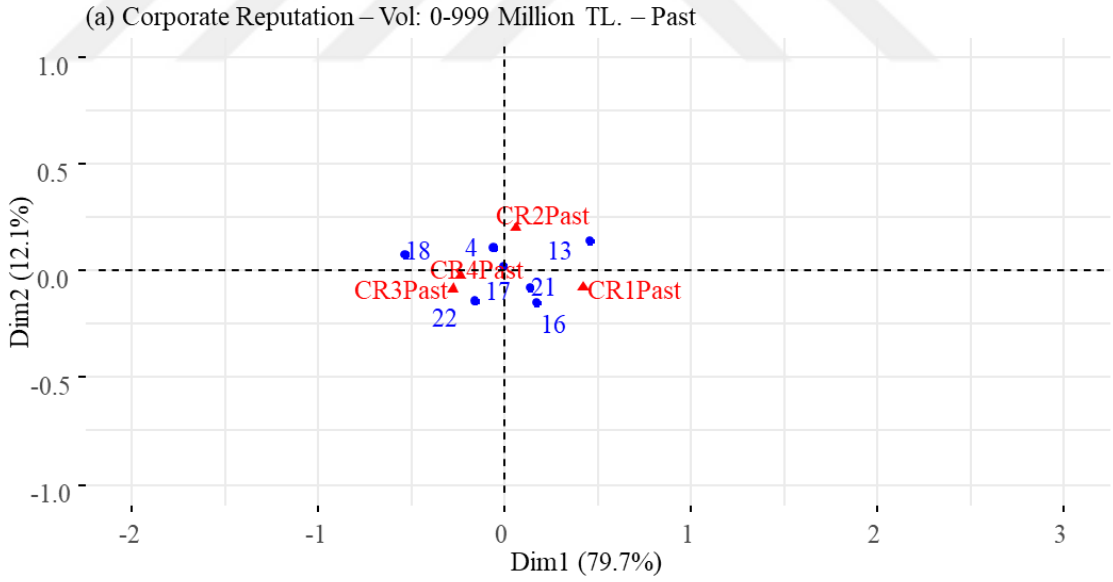
As for the multinational companies shown on the biplot (b) of Figure 43, it is remarkable that CR2's positioning is almost at the origin. As stated before, on a biplot graph, origin represents the average. For this reason, this finding is significant. CR3 according to the projections of profiles on Dimension 1 and CR4 according to the projections of profiles on Dimension 2 have differentiation.

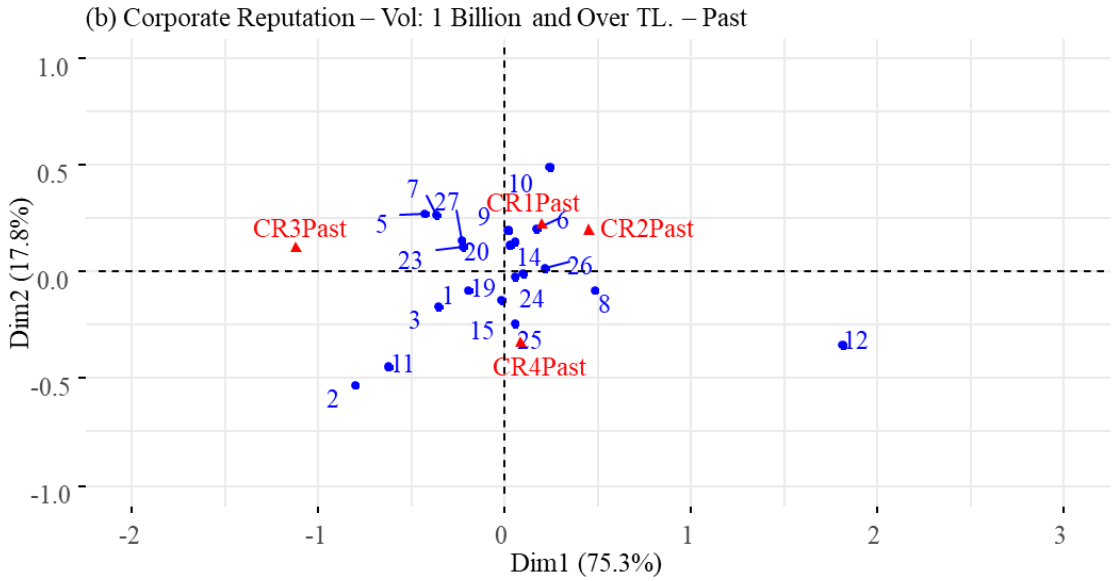
6.3.5. Assessments Related to Business Volume

In this section, the extent to which companies' judgements on maintaining and improving corporate reputation varies in regard to annual business volume.

Figure 44 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the past experiences.

Figure 44: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past





As seen on biplot (a) of Figure 44, Dimension 1 explains the 79.7% of the model whereas Dimension 2 has 12.1 % explanatory power. Projections of profiles on Dimension 1 reflect that CR1 differentiates among others in terms of companies with 0-999 million TL. annual business volume.

Assessments of companies with at least 1 billion TL. annual business volume are presented on biplot (b) of Figure 44. Accordingly, Dimension 1 explains the 75.3 % of the model whereas Dimension 2 has 17.8 % explanatory power. In terms of Dimension 1, CR3; in terms of Dimension 2, CR4 have differentiation. Company number 2, number 11 and number 12 are situated away from the other companies.

Figure 45 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the current situation (present).

Assessments of companies with 0-999 million TL. annual business volume for present are almost the same with the assessments of the past. As it is seen on biplot (a) of Figure 45, CR1 is situated very close to the origin at the average point.

Assessments of companies with at least 1 billion TL. annual business volume for present as presented by biplot (b) are also in parallel with the assessments of the past.

Figure 45: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present

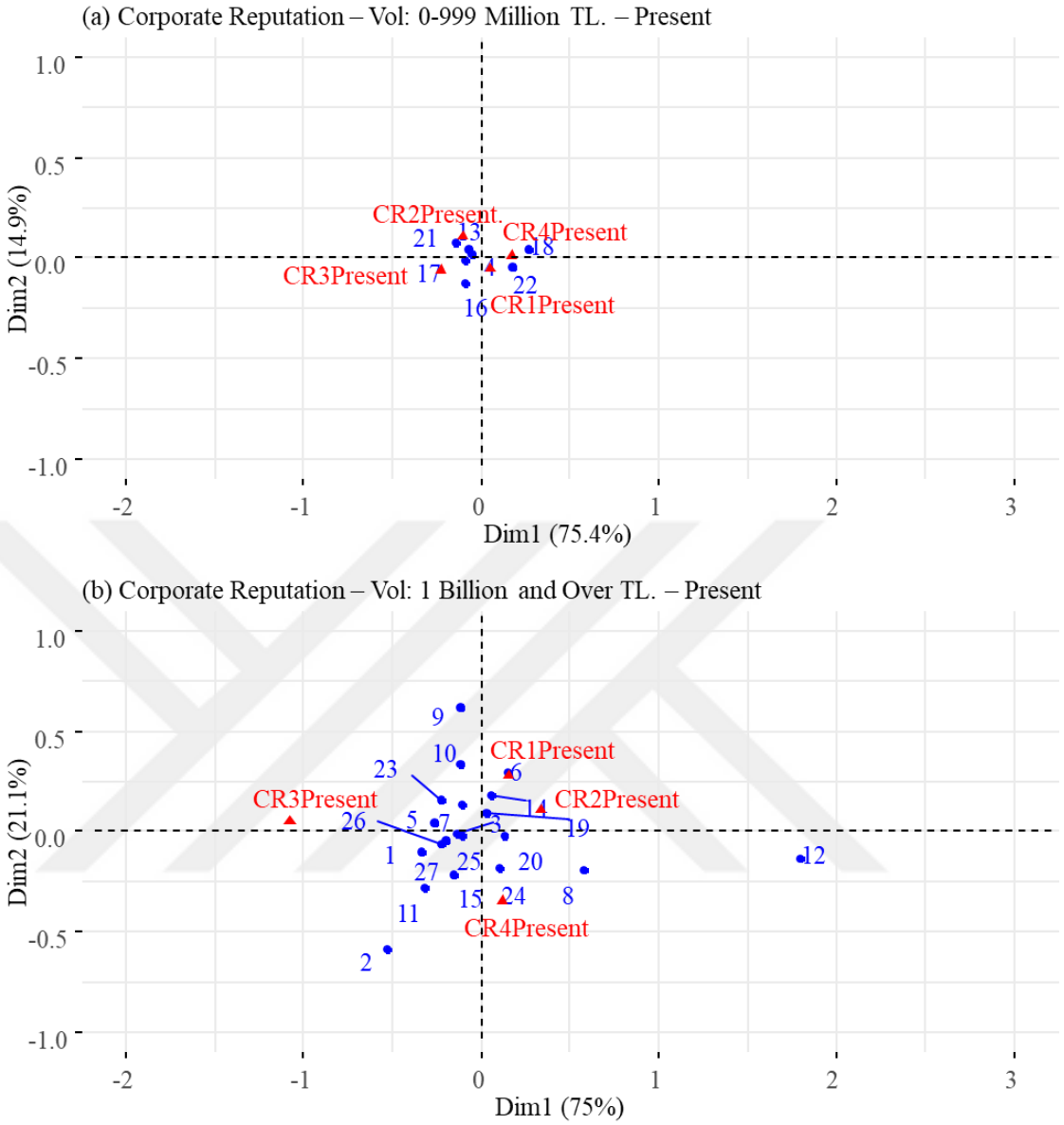
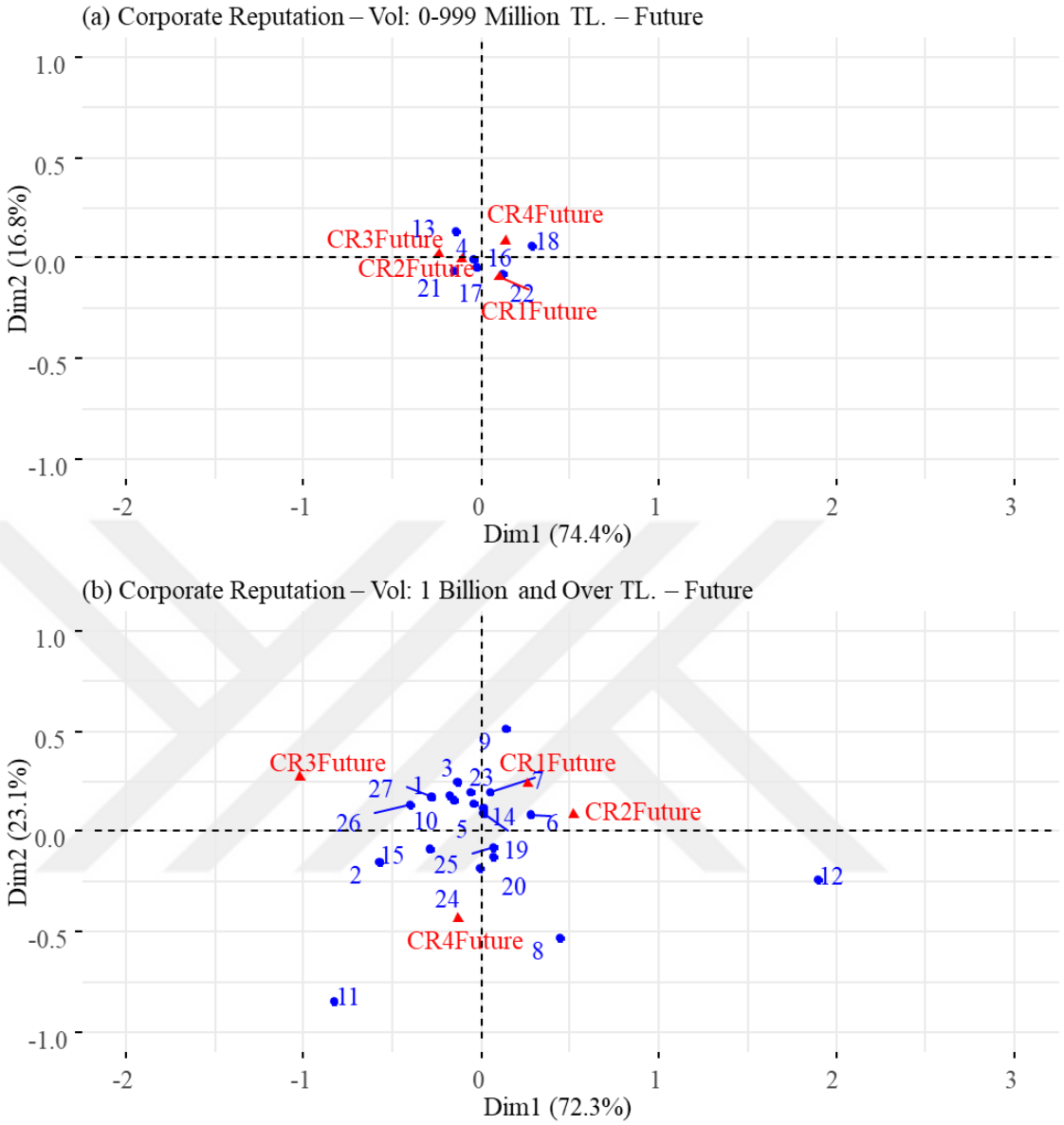


Figure 46 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the future expectations and foresights.

Assessments of companies with 0-999 million TL. annual business volume for the future are almost the same with the assessments of the past and present while assessments of companies with at least 1 billion TL. annual business volume for present are also in parallel with the assessments of the past and present.

Figure 46: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future



6.4. Findings for Business Goals

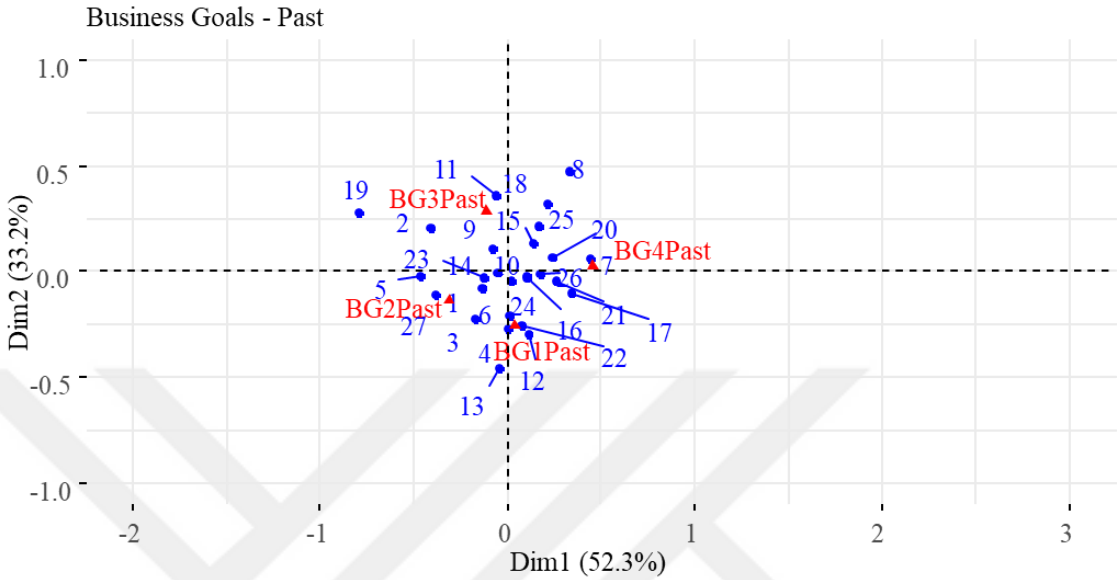
Under this topic, judgements of companies regarding to the components related to alignment of corporate sustainability with business goals discussed.

6.4.1. General Characteristics of Past - Present – Future Assessments

In this section, BG1 symbolizes improving organizational efficiency, BG2 symbolizes new growth opportunities, new product development, BG3 symbolizes

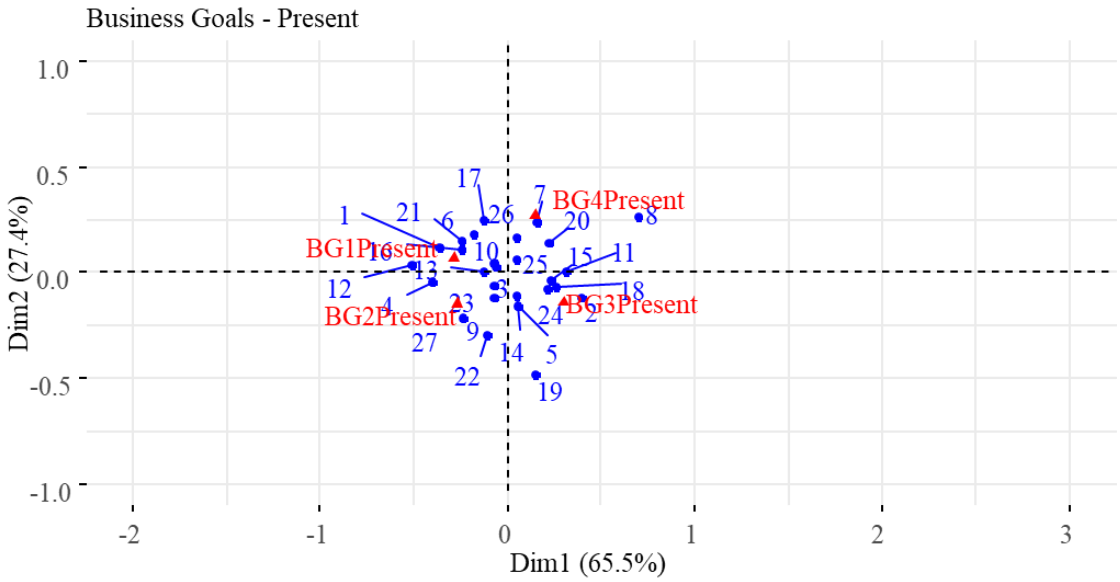
strengthening competitive position, and BG4 symbolizes maintaining ethical practices.

Figure 47: Business Goals – Past



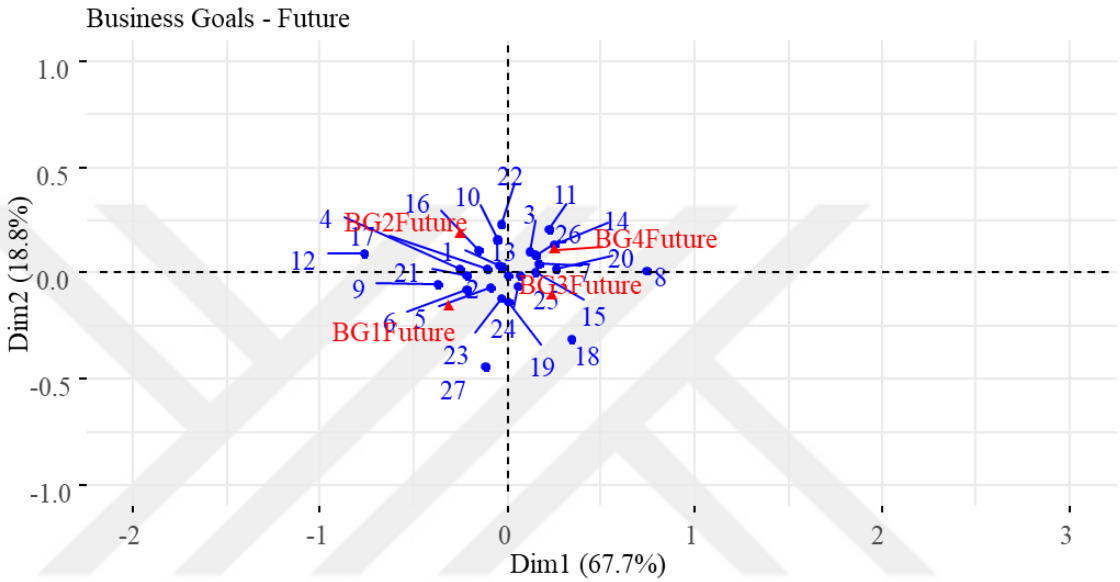
As demonstrated in Figure 47, Dimension 1 has 52.3 %, Dimension 2 has 33.2 % explanatory power. Total quality of display equals to 85.5 %. Projections of the profiles on Dimension 1 indicate that BG2, BG3 and BG1 are close to each other and BG4 has differentiation. In terms of the projections on Dimension 2, BG3 has a differentiated positioning.

Figure 48: Business Goals – Present



Compared to the assessments of the past, for the assessments of present, as it is seen on Figure 48, the explanatory power of Dimension 1 has increased from 52.3 % to 65.5 %. In addition, total quality has become 92.9 % from 85.5 %. Moreover, intervals between the projections of profiles on Dimension 1 become closer and similar.

Figure 49: Business Goals – Future



Assessments in regard to sub-items of business goals for the future demonstrated on Figure 49 are in parallel with the assessments for present.

6.4.1. Assessments of Reporting vs. Not Reporting Companies

In this section, the extent to which companies' judgements on alignment of corporate sustainability with business goals varies in regard to sustainability reporting status or not.

Figure 50 identifies the assessments of reporting companies for the past with biplot (a) and the assessments of not reporting companies for the past with biplot (b). Assessments figure out the past experiences.

Biplot (a) of Figure 50 show that Dimension 1 has 61.9 %, Dimension 2 has 22.7 % explanatory power. Total quality of display equals to 84.6 %. Projections of the profiles on Dimension 1 indicate that BG4 have differentiation.

Biplot (b) of Figure 50 shows that Dimension 1 has 72.1 %, Dimension 2 has 28.3 % explanatory power. Total quality of display equals to 90.2%. Projections of the profiles on Dimension 1 indicate that BG3 and BG4 are judged by the respondents similarly. In addition, BG2 is positioned as differentiated according to the projections of the profiles on Dimension 2.

Figure 50: Reporting vs. Not Reporting Companies – Past

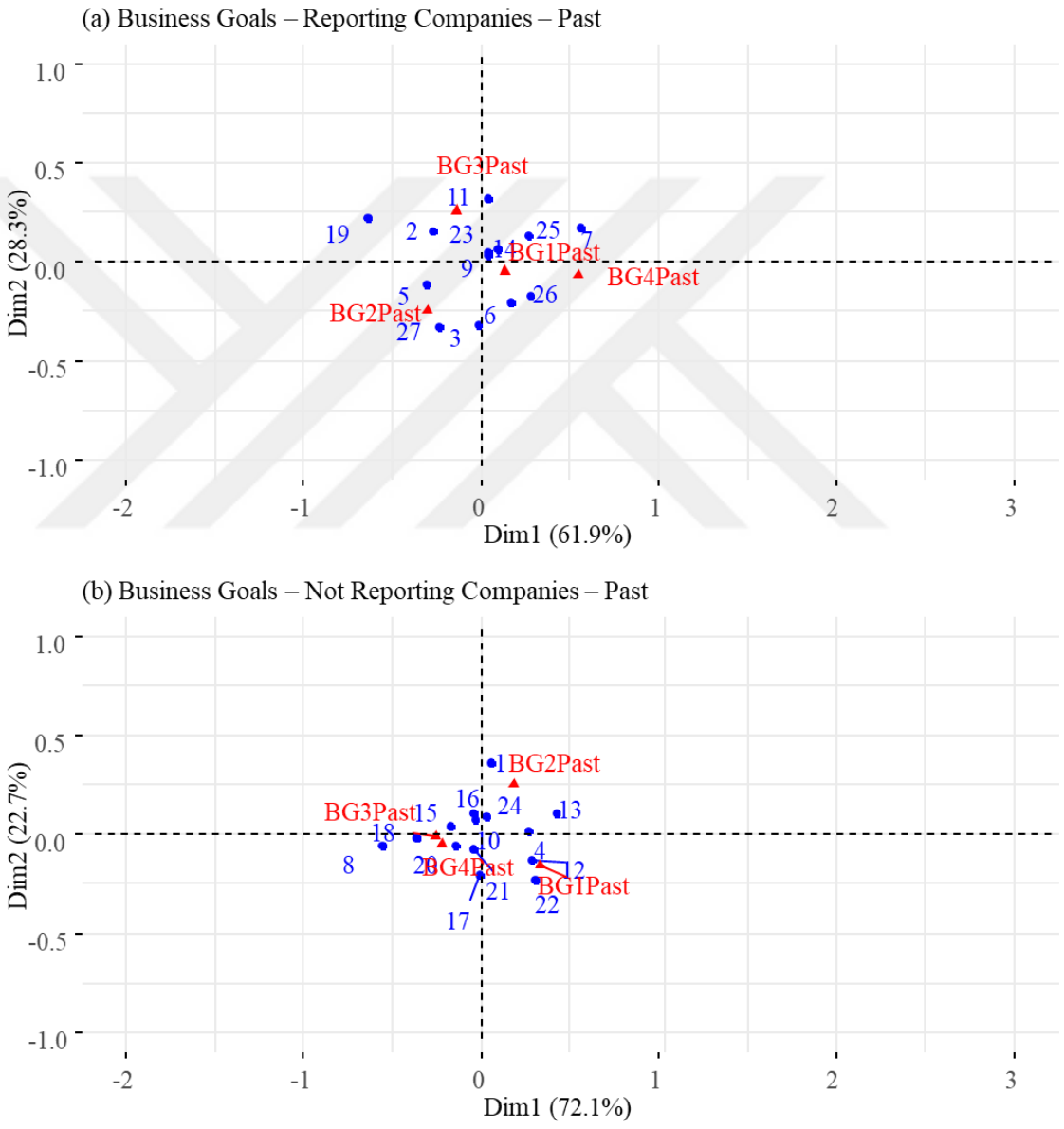


Figure 51 identifies the assessments of reporting companies for the past with biplot (a) and the assessments of not reporting companies for the past with biplot (b). Assessments figure out the current situation (present).

Biplot (a) of Figure 51 shows that Dimension 1 has 48.3 %, Dimension 2 has 39.7 % explanatory power. On this graph, one dimension does not dominate the explanatory power. BG3 in terms of Dimension 1, BG2 in terms of Dimension 2 are differentiated in some degree. However, a more holistic view in regard to sub-dimensions of business goals is seen among reporting companies. On the other hand, assessments of not reporting companies indicate a high extent explanatory power on Dimension 1 with 80.8 %. In parallel to the assessments for the past, BG3 and BG4 are judged by the respondents similarly.

Figure 51: Reporting vs. Not Reporting Companies – Present

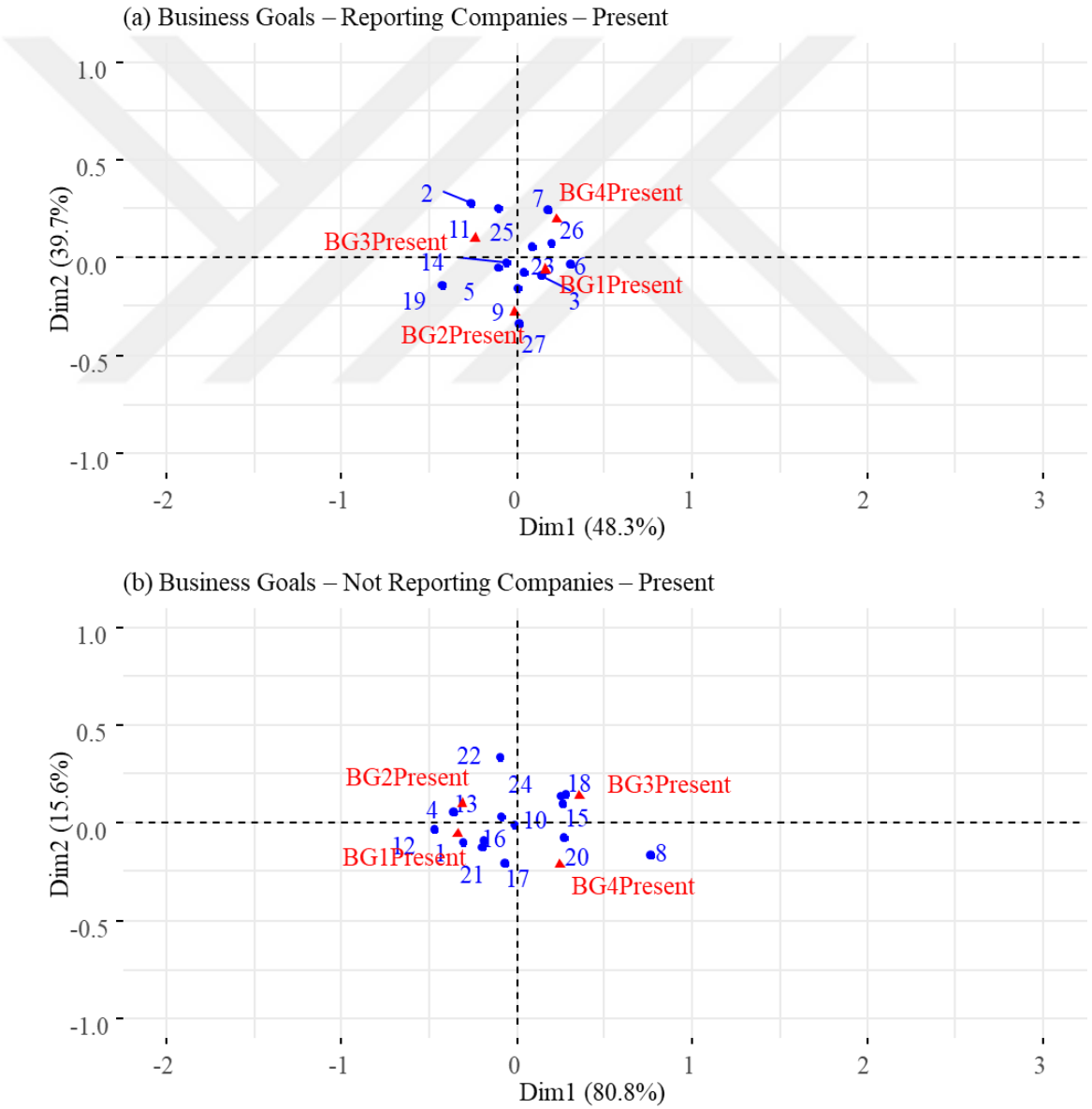
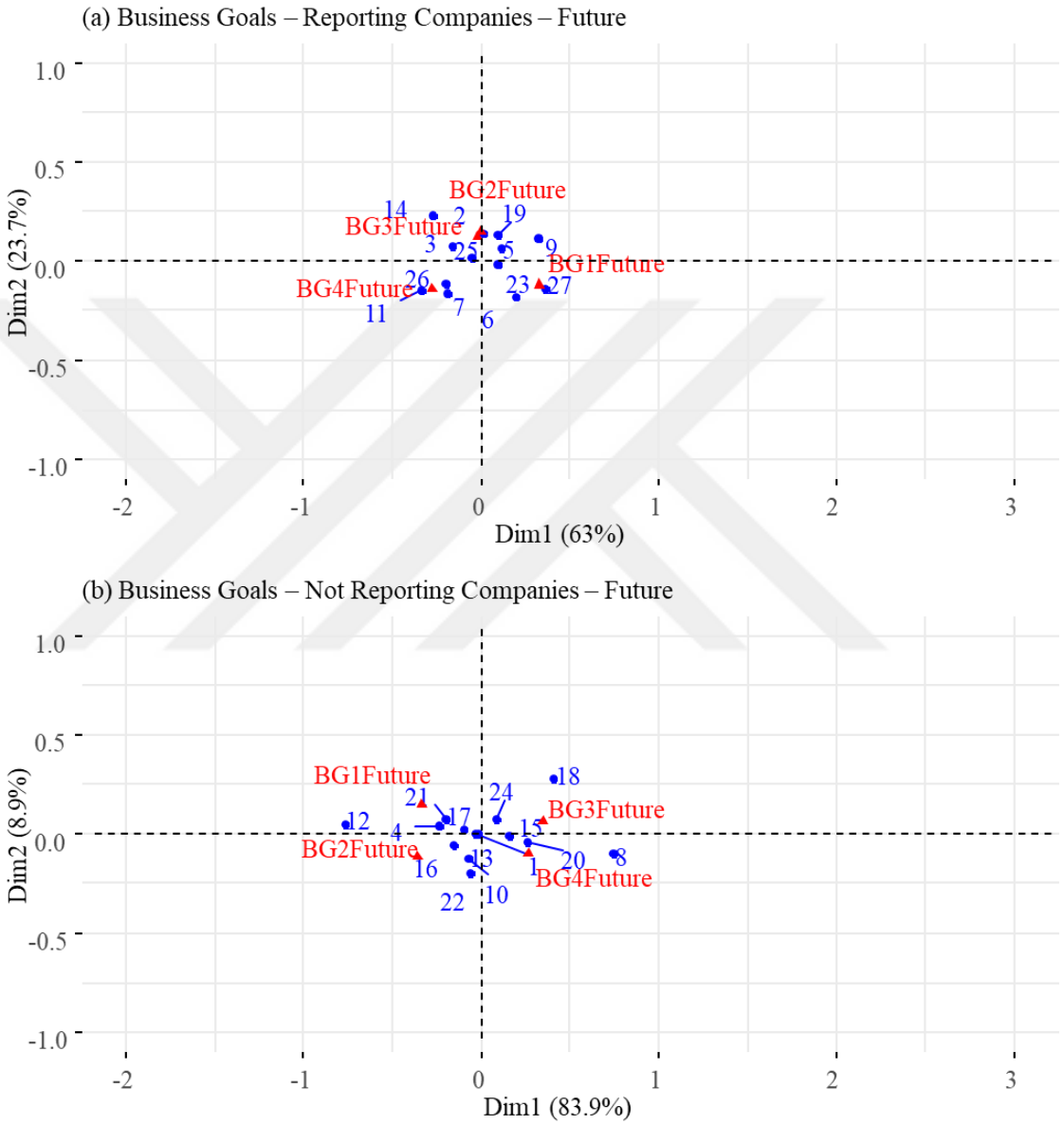


Figure 52 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the future expectations and foresights.

Figure 52: Reporting vs. Not Reporting Companies – Future



As demonstrated with biplot (a) of Figure 52, assessments of reporting companies indicate that Dimension 1 has 63 %; Dimension 2 has 23.7 % explanatory power. BG2 and BG3 are situated at the same point on the coordinate axis. It means that respondents judge these two sub-items for the future similarly.

On the other hand, assessments of not reporting companies demonstrated with biplot (b) reveal that BG1 and BG2 are positioned closely one the one side while

BG3 and BG4 are positioned closely on another side. Therefore, it can be interpreted as that respondents judge BG3 and BG4 as a one group, BG1 and BG2 as another group.

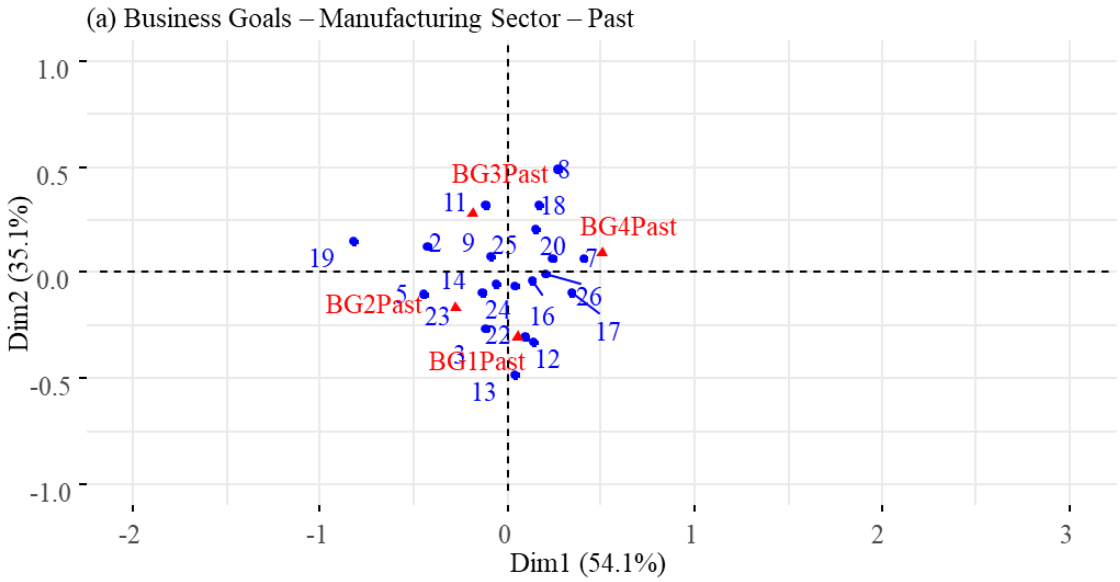
6.4.2. Assessments of Manufacturing vs. Service Sector

In this section, the extent to which companies' judgements on alignment of corporate sustainability with business goals varies in regard to being from manufacturing or service sector.

Figure 53 identifies the assessments of companies from manufacturing with biplot (a) and companies from service sector for the past with biplot (b). Assessments figure out the past experiences.

Assessments of manufacturing sector companies have been loaded on Dimension 1 with 51.4 % and on Dimension 2 with 35.1 %. It is seen that four sub-items are positioned close to each other. Besides, assessments of service sector companies are explained by Dimension 1 with 73.4 % and by Dimension 2 with 24 %. Projections of profiles on Dimension 1 indicate that BG3 have a differentiation in some degree relatively to other sub-items.

Figure 53: Manufacturing vs. Service Sector – Past



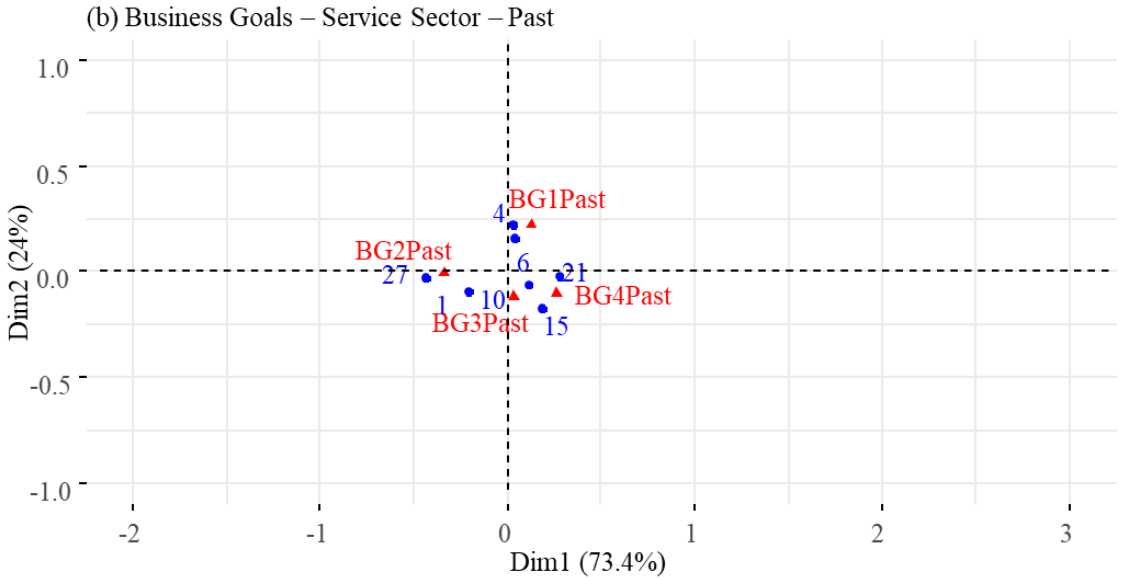
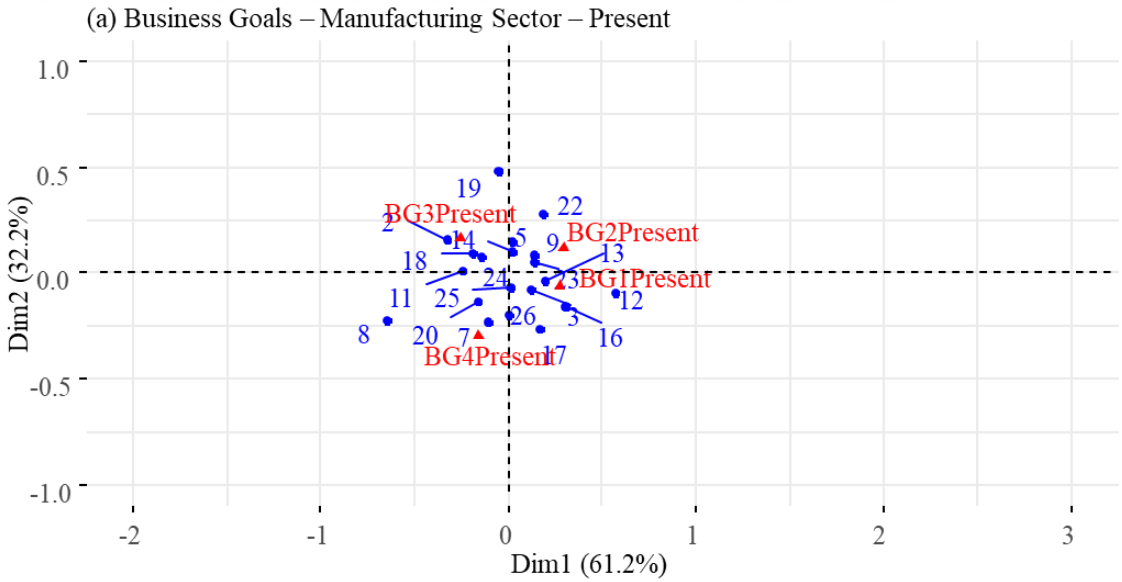
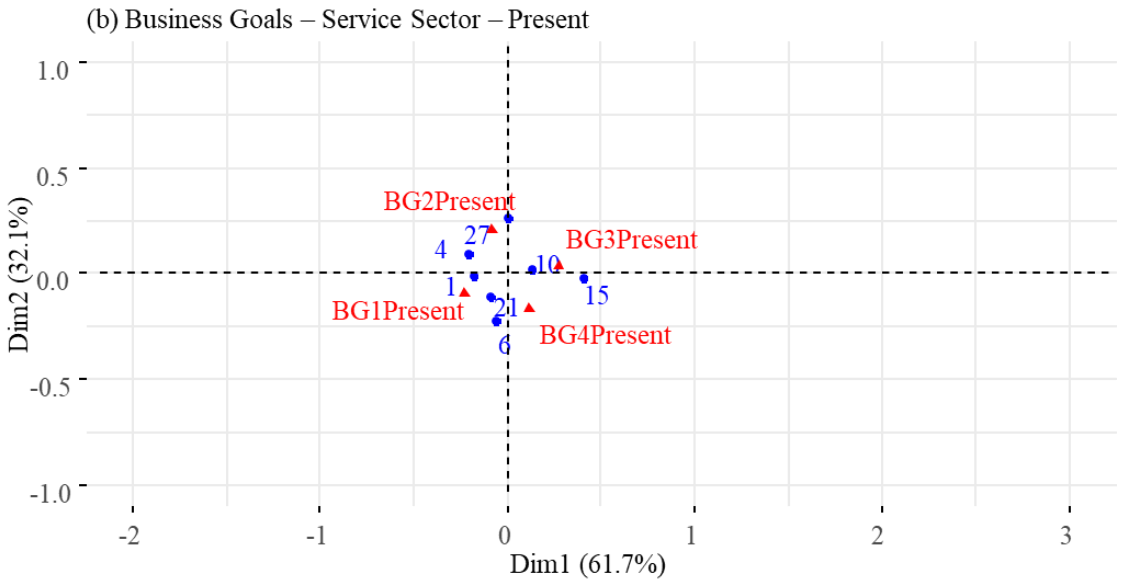


Figure 54 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the current situation (present).

Figure 54: Manufacturing vs. Service Sector – Present





As it is seen from Figure 54 that assessments of manufacturing sector (a) for present is similar to the assessments for the past. However, for present, the explanatory power of Dimension 1 is relatively higher than it was in Figure 51. Positioning of the profiles is very similar.

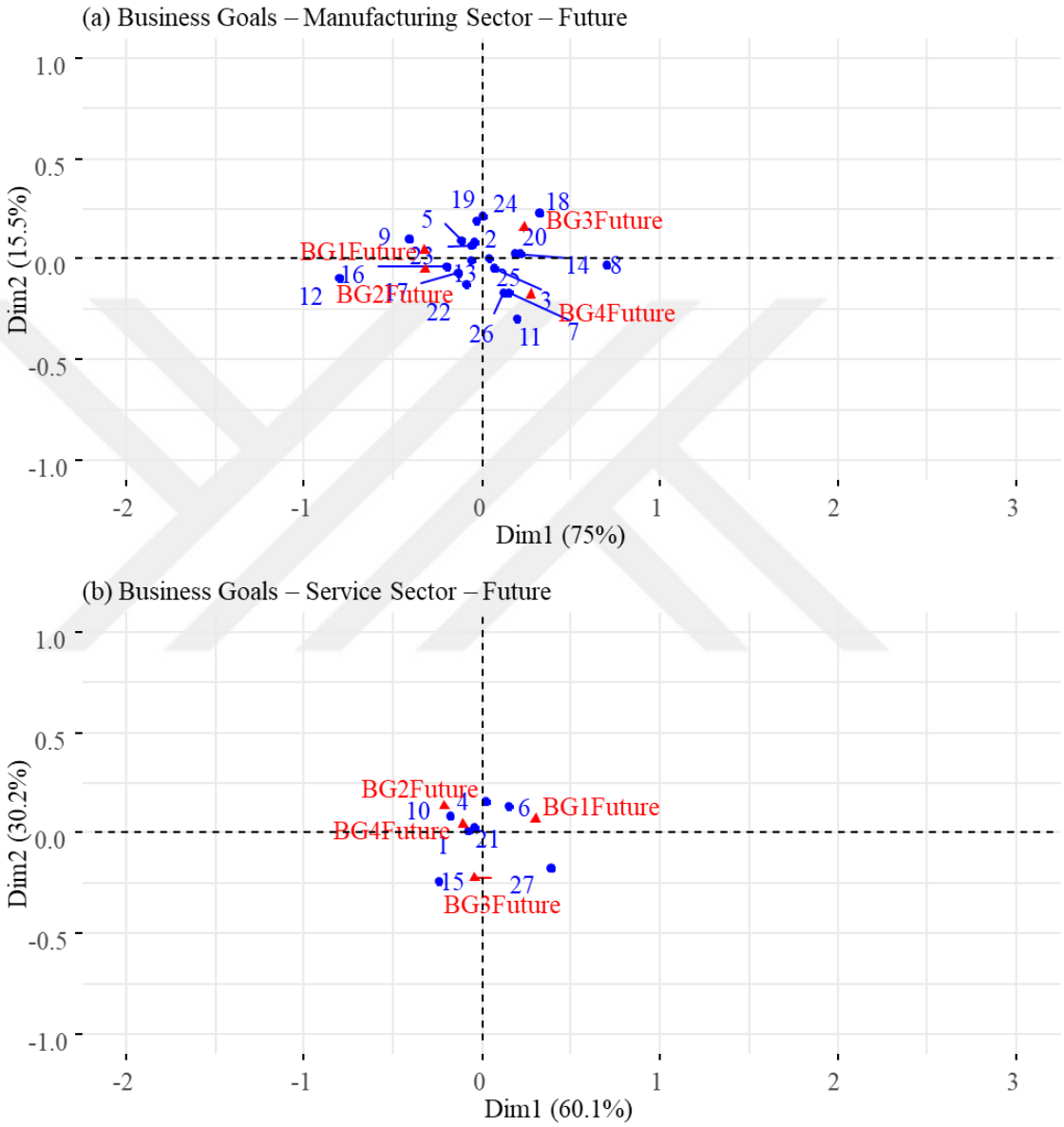
As for the service sector which is demonstrated with biplot (b) of Figure 54, contrary to manufacturing sector, the explanatory power of Dimension 1 has decreased relatively to the assessments for the past. However, positioning of the profiles is parallel in the assessments for the past and present. Intervals among them are close to each other.

Figure 55 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the future expectations and foresights.

As demonstrated with biplot (a) of Figure 55, assessments of manufacturing sector indicate that Dimension 1 has 75 %; Dimension 2 has 15.5 % explanatory power. BG1 and BG2 are situated at the same point on the coordinate axis. It means that respondents judge these two sub-items for the future similarly. Similary, BG3 and BG4 are positioned closely to each other as well. Therefore, it can be interpreted as that respondents judge BG1 and BG2 as a one group, BG3 and BG4 as another group.

On the other hand, assessments of service sector demonstrated on biplot (b) reveal that BG3 differentiate itself according to the projection of profiles on Dimension 2.

Figure 55: Manufacturing vs. Service Sector – Future

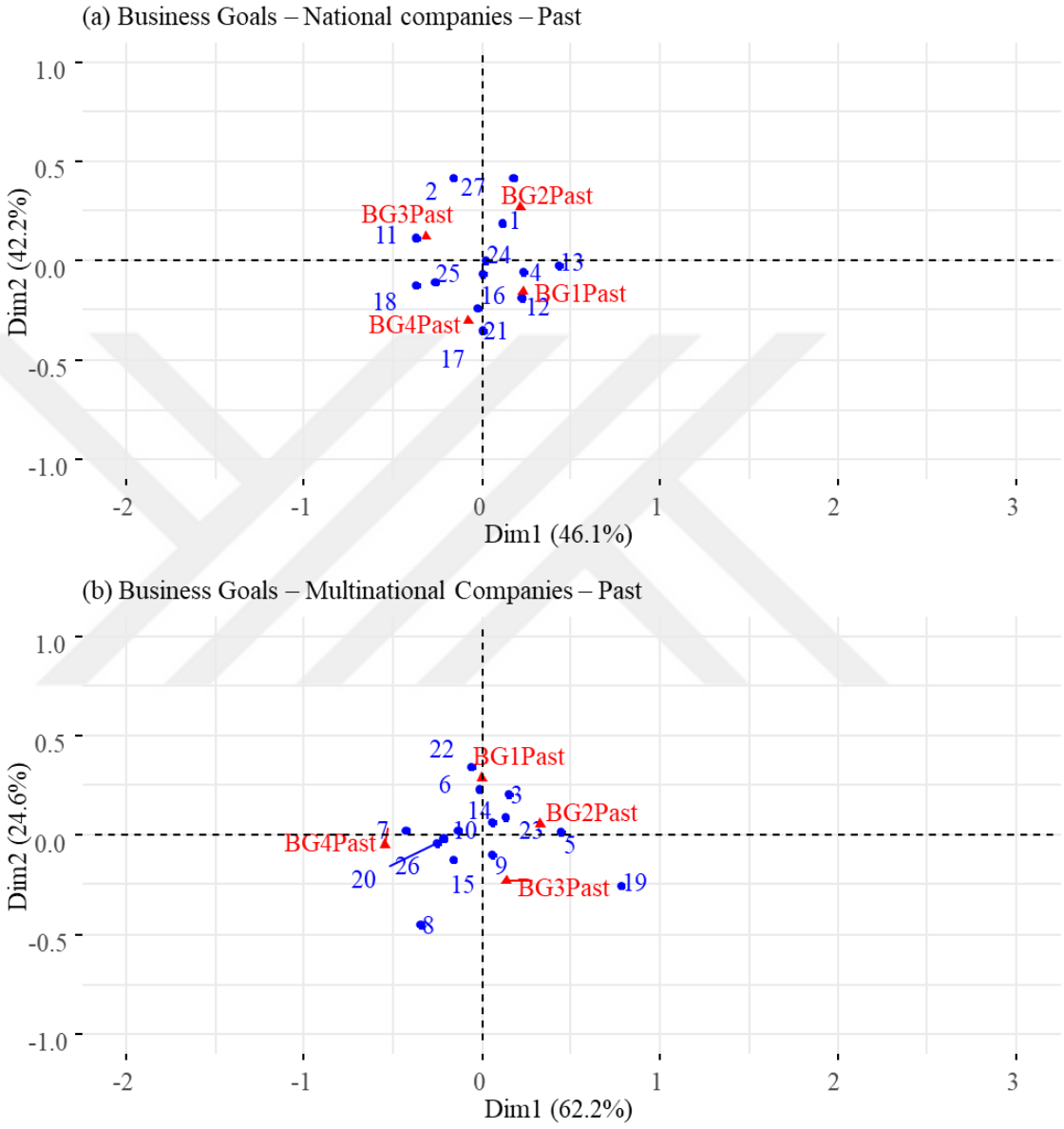


6.4.3. Assessments of National – Multinational Companies

In this section, the extent to which companies' judgements on alignment of corporate sustainability with business goals varies in regard to being national or multinational.

Figure 56 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the past experiences.

Figure 56: National vs. Multinational Companies – Past



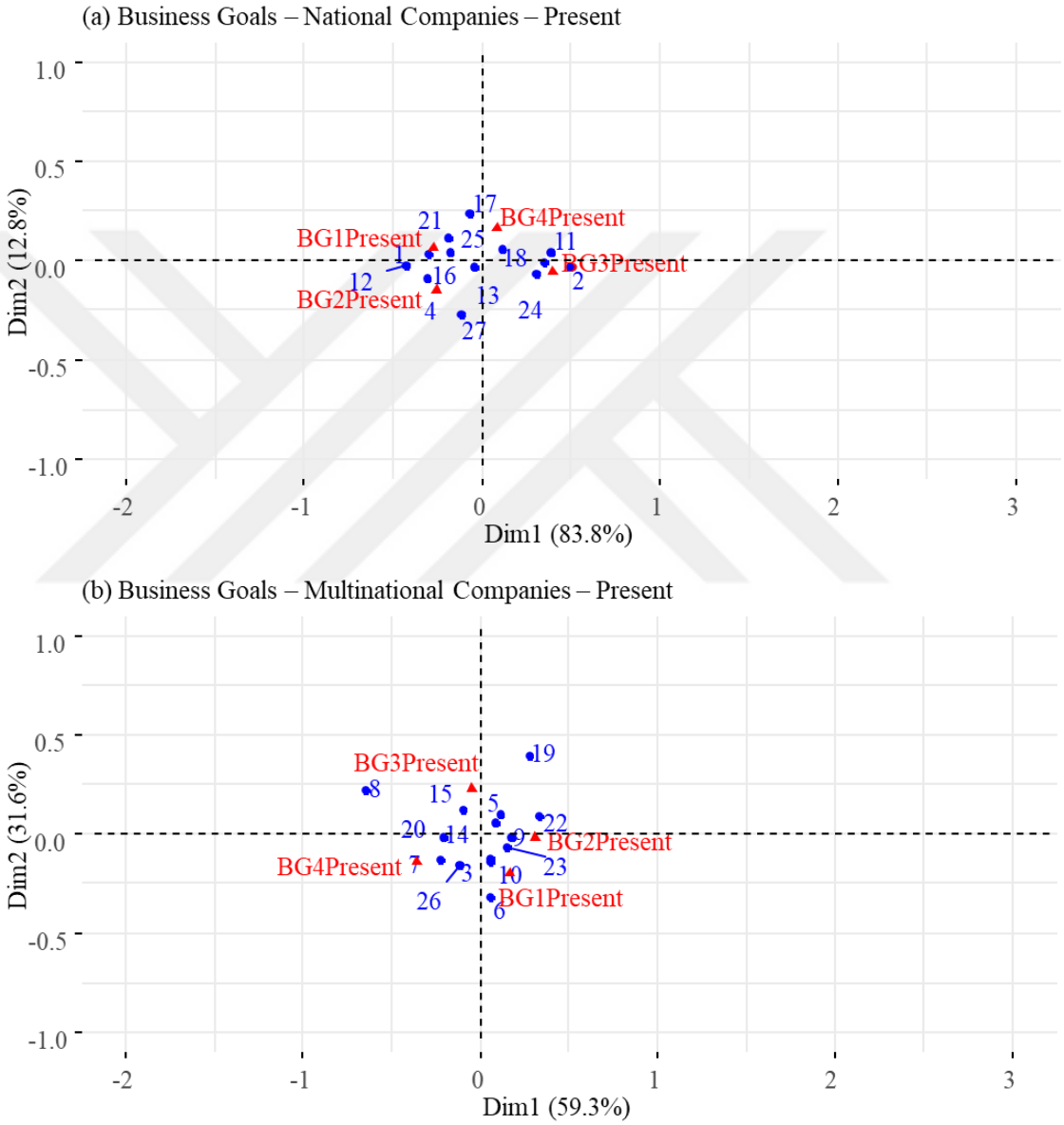
As demonstrated on biplot (a) of Figure 56, regarding to national companies, Dimension 1 has 46.4 %, Dimension 2 has 42.2 % explanatory power. This means that both Dimension 1 and Dimension 2 have similar quality on the overall display. On the biplot (a), no differentiated sub-item is remarkable.

Biplot (b) of Figure 56 presents the assessments of multinational companies. Dimension 1 has 62.2 %, Dimension 2 has 24.6 % explanatory power. Projections of the profiles on Dimension 1 reveal that BG1, BG2 and BG2 are positioned close to

each other. On the other hand, BG4 is situated away from them. Consequently, the biplot reflects that BG4 dominates the display.

Figure 57 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the current situation (present).

Figure 57: National vs. Multinational Companies – Present

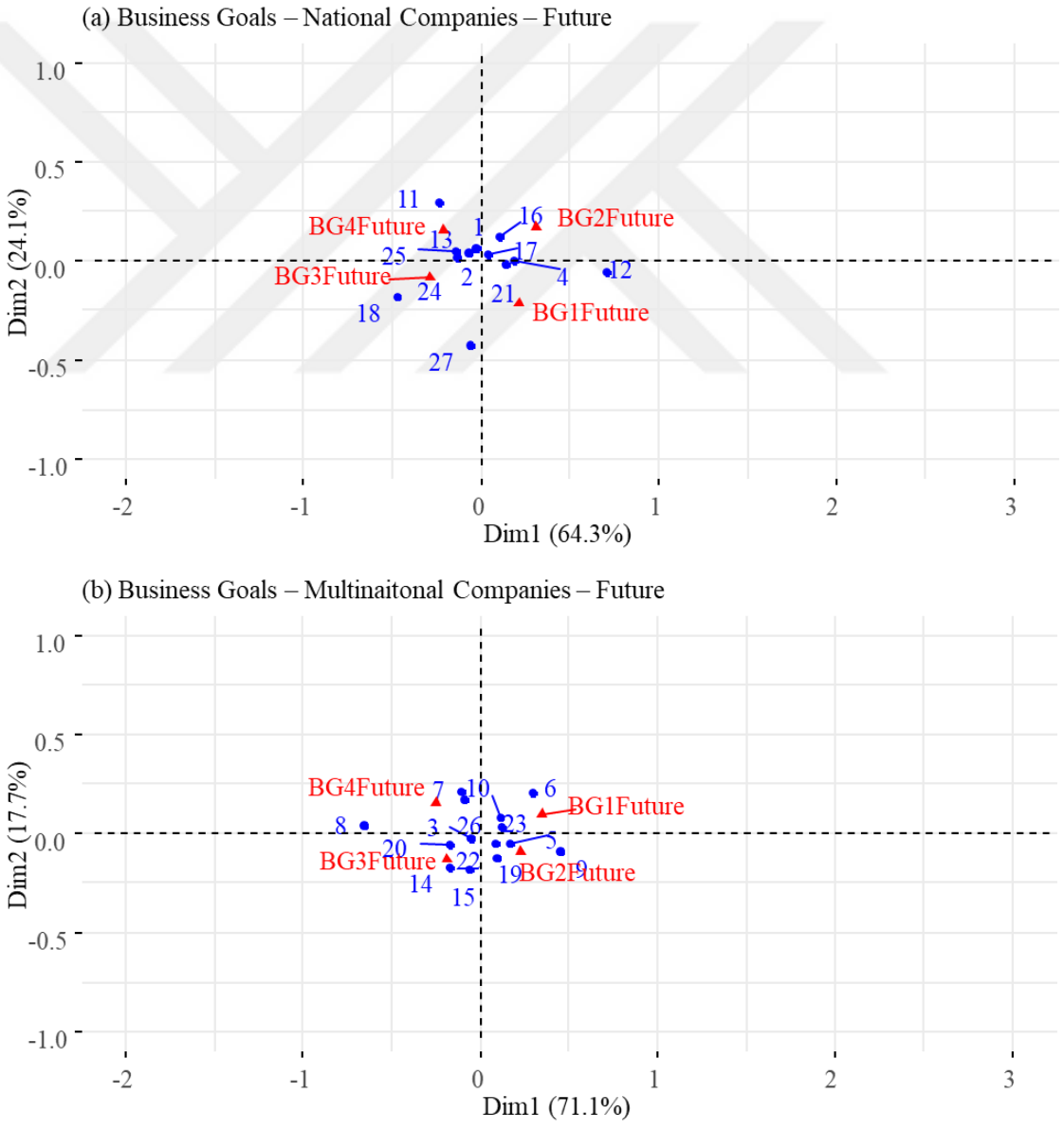


Biplot (a) of Figure 57 reveals that Dimension 1 explains 83.8 % and Dimension 2 explains 12.8 % of the assessments of national companies. Projections of the profiles on Dimension 1 indicate that BG3 is differentiated from the other sub-items.

As for the multinational companies presented on biplot (b) of Figure 57, Dimension 1 has 59.3 % and Dimension 2 has 31.6 % explanatory power. Similarly to national companies, BG3 is differentiated itself among multinational companies as well. When the positions of companies are analysed, company number 19 is positioned away from other companies.

Figure 58 presents the assessments of national and multinational companies in terms of national and multinational companies. Assessments figure out the future expectations and foresights.

Figure 58: National vs. Multinational Companies – Future



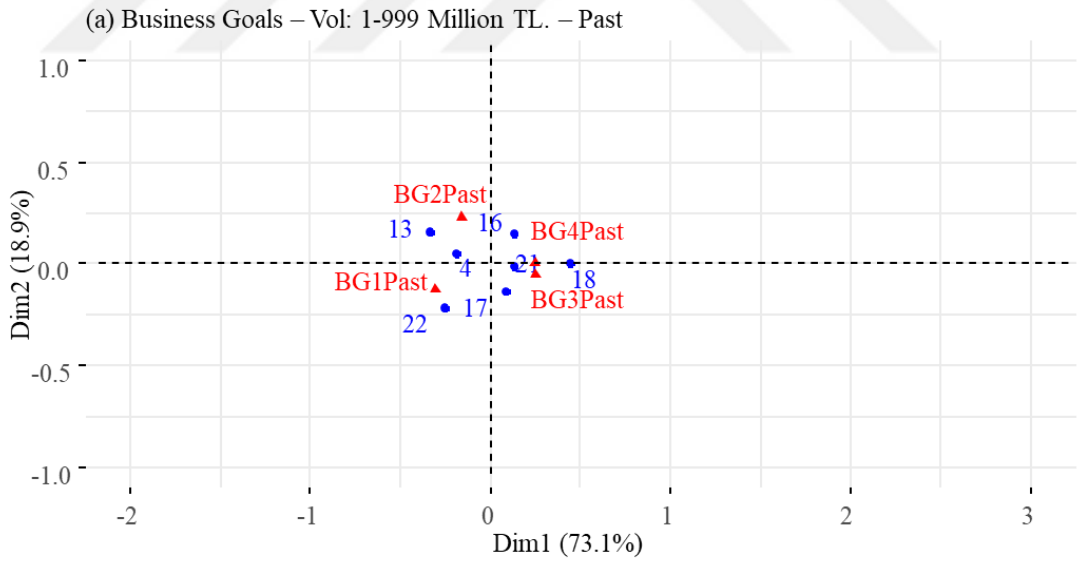
According to Figure 58, both national and multinational companies judge the influential business goals aligned with corporate sustainability practices in parallel. Projections of profiles on Dimension 1 and Dimension 2 have similar characteristics. There is no a remarkable differentiated sub-item. Both of the biplots present a holistic view for business goals.

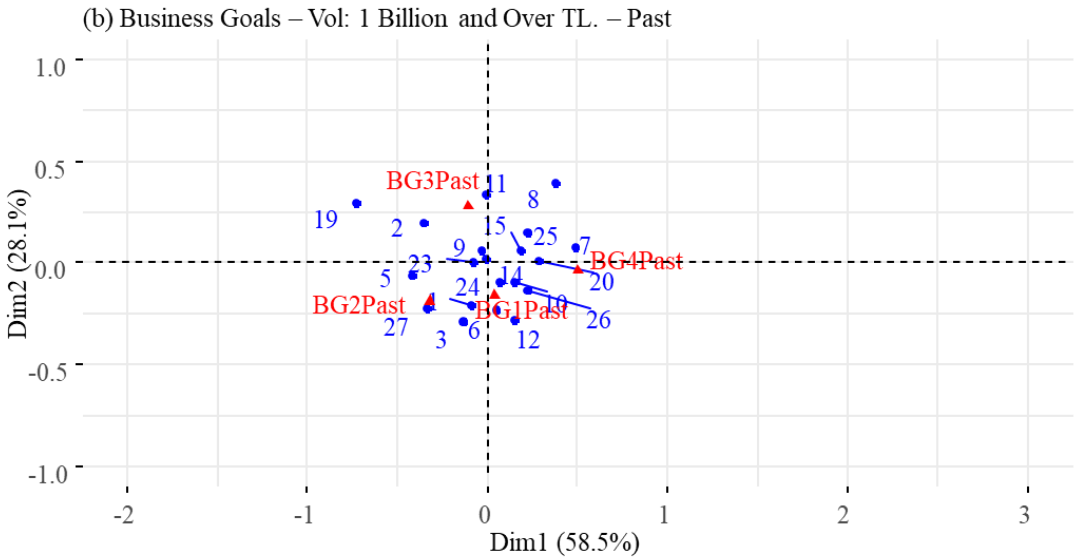
6.4.4. Assessments Related to Business Volume

In this section, the extent to which companies' judgements on alignment of corporate sustainability with business goals varies in regard to annual business volume.

Figure 59 demonstrates companies that have 0-999 million TL. annual business volume with biplot (a) and companies that have at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the past experiences.

Figure 59: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past





Assessments of companies with at least 0-999 million TL. as presented by biplot (a) indicate that Dimension 1 explains the 73.1 % of the model whereas Dimension 2 has 18.9 % explanatory power. BG3 and BG4 have almost the same positioning due to projections of the profiles on Dimension 1. In terms of Dimension 1, BG1; in terms of Dimension 2, BG2 have differentiation.

Assessments of companies with at least 1 billion TL. as presented by biplot (b) reveal that the Dimension 1 has 58.5 %, Dimension 2 has 28.1 % explanatory power. According to the projections of the profiles on Dimension 1, BG4 is differentiated in some degree. On the other hand, BG3 is situated away from the other sub-items in terms of projections of the profiles on Dimension 2.

Figure 60 demonstrates companies that have 0-999 million TL. annual business volume with biplot (a) and companies that have at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the current situation (present).

Assessments of companies with at least 0-999 million TL. vary from the assessments for the past. Dimension 1 explains the 60.3 % of the model whereas Dimension 2 has 35.8 % explanatory power. BG1, BG2 and BG4 have close positioning to each other. On the other hand, BG3 is situated away from them.

Assessments of companies with at least 1 billion TL. presents different judgements from the past. Dimension 1 has 65.3 %, Dimension 2 has 27.3 % explanatory power. According to the projections of the profiles on Dimension 1, BG1 and BG2 are positioned closely, while BG3 and BG4 have close projections as

well. However, in terms of the projections of Dimension 2, BG4 is differentiated in some degree.

Figure 60: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present

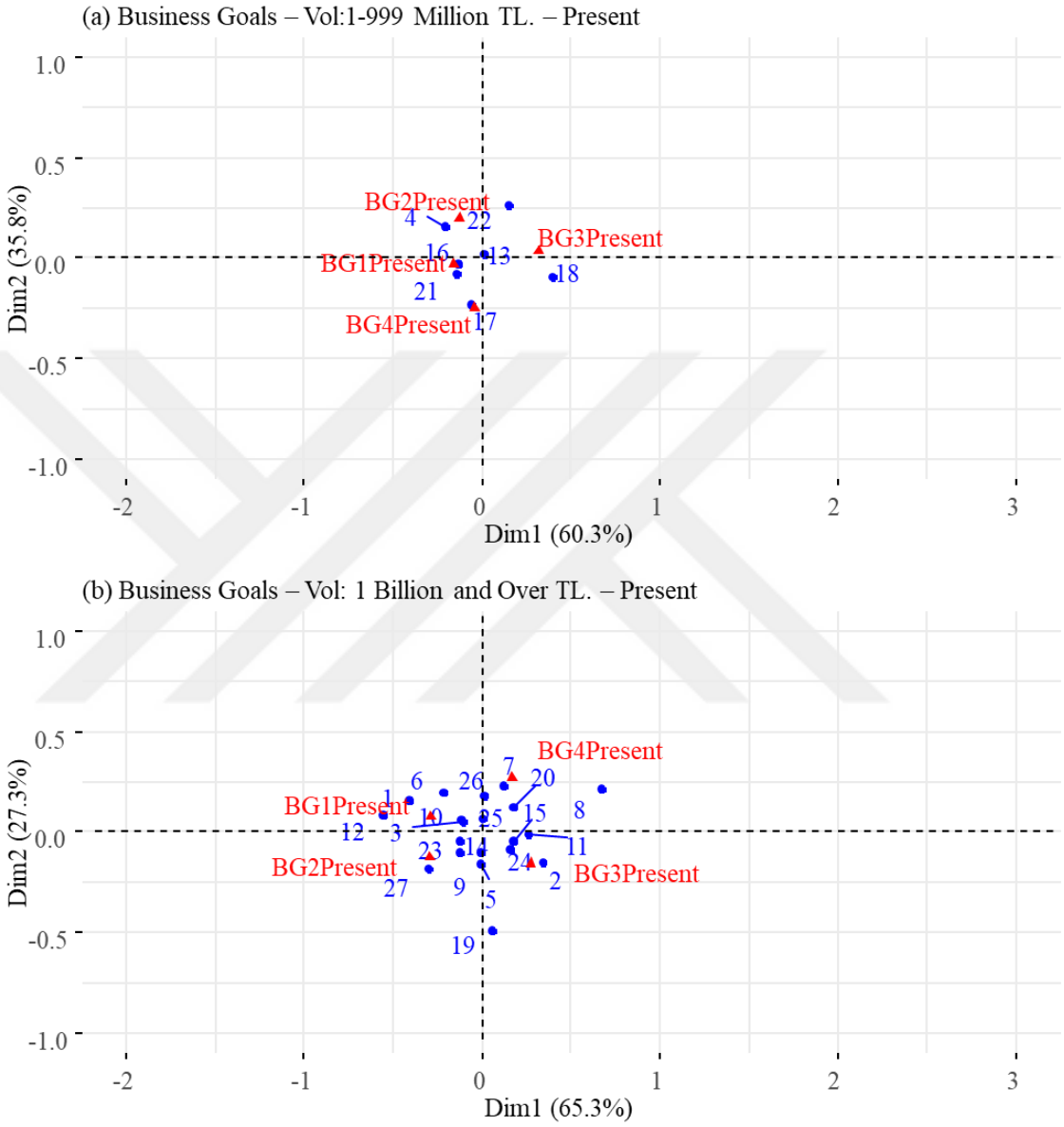


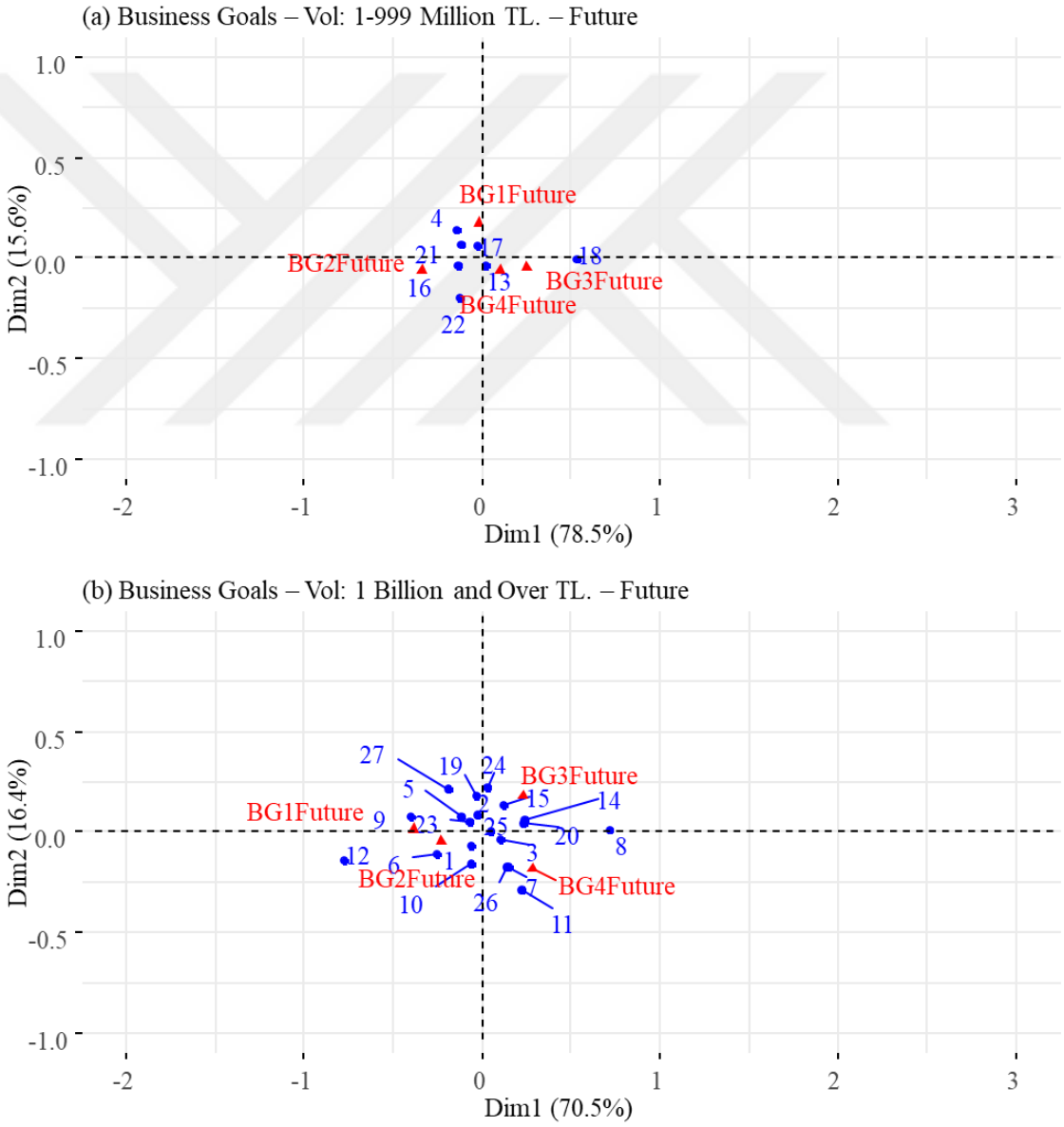
Figure 61 shows companies that have 0-999 million TL. annual business volume with biplot (a) and companies that have at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the future expectations and foresights.

Assessments of companies with at least 0-999 million TL. as presented by biplot (a) indicate that Dimension 1 explains the 78.5 % of the model whereas Dimension 2 has 15.6 % explanatory power. BG1, BG3 and BG4 have almost the

same positioning due to projections of the profiles on Dimension 1 while BG2 is differentiated.

Assessments of companies with at least 1 billion TL. as presented by biplot (b) reveal that the Dimension 1 has 70.5 %, Dimension 2 has 16.4 % explanatory power. According to the projections of the profiles on Dimension 1 and Dimension 2, sub-items are positioned close to each other. It is difficult to interpret one of them as differentiated. Therefore, it can be recognized that there is a holistic view.

Figure 61: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future



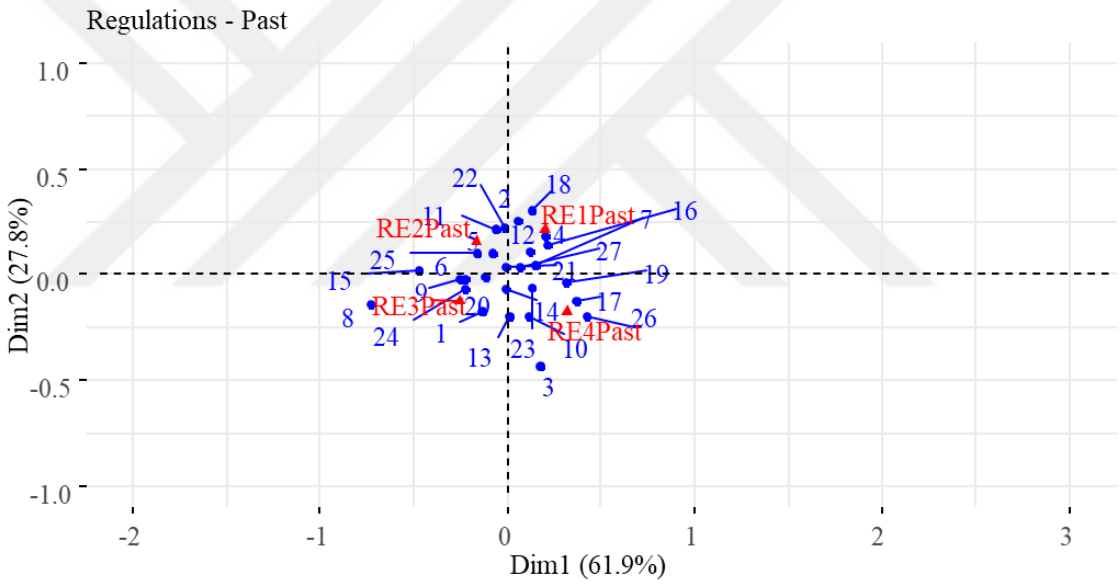
6.5. Findings for Regulations

Under this topic, judgements of companies regarding to the components related with complying with regulations are discussed.

6.5.1. General Characteristics of Past - Present – Future Assessments

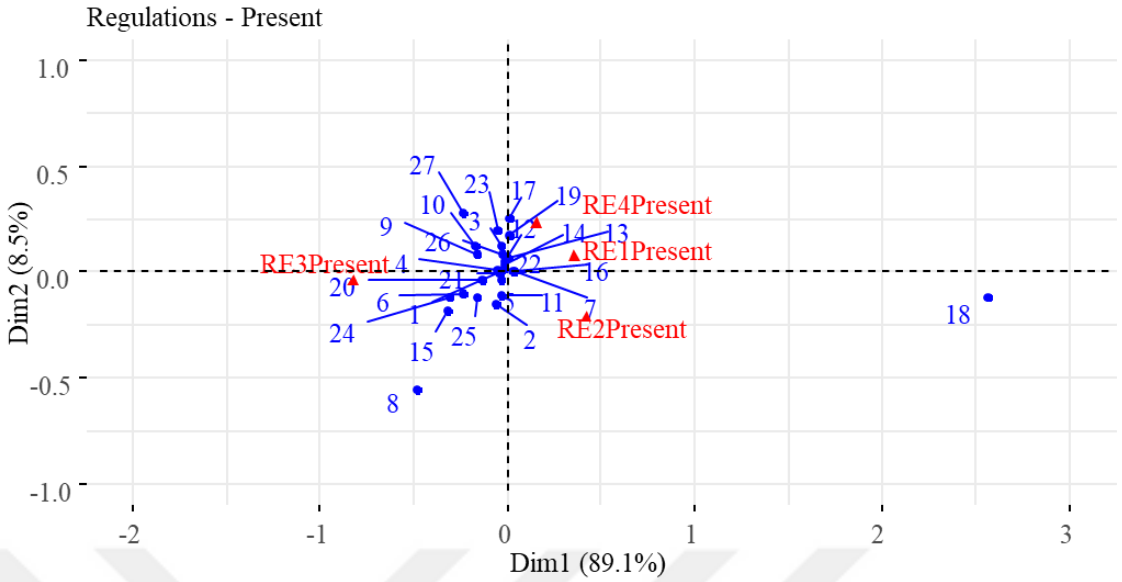
In this section, RE1 symbolizes meeting environmental regulations, RE2 symbolizes meeting social regulations and labor standards, RE3 symbolizes meeting accepted industry standards and RE4 symbolizes meeting international regulations.

Figure 62: Regulations – Past



As demonstrated in Figure 62, Dimension 1 has 61.9 %, Dimension 2 has 27.8 % explanatory power. Total quality of display equals to 89.7 % which is highly satisfactory. Projections of the profiles on Dimension 1 and Dimension 2 indicate that sub-items are not differentiated to a large extent. It can be interpreted as respondents judge all items with similar scores and they have a holistic view on the composition of regulations for the past.

Figure 63: Regulations – Present



Compared to the assessments for the past, assessments for present, profile projections have differences in terms of both sub-items and companies.

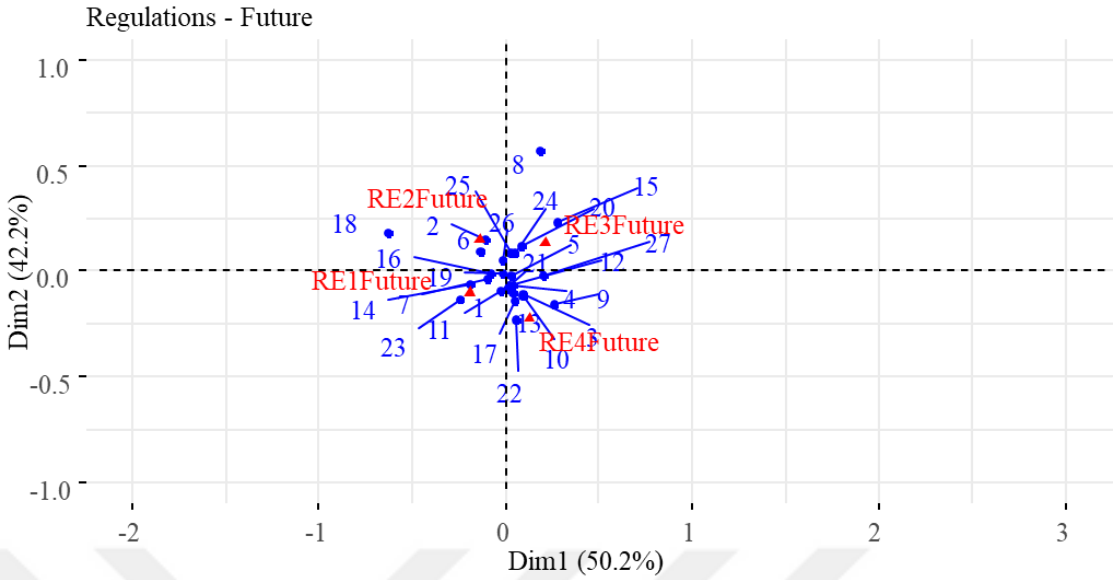
As shown in Figure 63, explanatory power of the graph is 97.6 % in general; Dimension 1 has 89.1 %, Dimension 2 has 8.5 % explanatory power. As Dimension 1 explains the 89.1 % of the model, projections of the profiles on Dimension 1 are analysed and accordingly, RE1, RE2 and RE4 are close to each other. On the other hand, RE3 is situated away from them. Consequently, the biplot reflects that RE3 dominates the model.

In terms of company profiles, company 18 is situated away from them the others. It can be recognized as the outlier.

As demonstrated in Figure 64, Dimension 1 has 50.2 %, Dimension 2 has 42.2 % explanatory power. It is remarkable that responses are not dominated on one dimension as the percentages are close to each other. This means that responses do not concentrated on one dimension; instead they are dispersed to two dimensions. Therefore, Total quality of display equals to 92.4 %.

General display is similar to the assessments for the past. Projections of the profiles on Dimension 1 and Dimension 2 indicate that sub-items are not differentiated to a large extent. It can be interpreted as respondents judge all items with similar scores and they have a holistic view on the composition of regulations for the future.

Figure 64: Regulations – Future



6.5.2. Assessments of Reporting vs. Not Reporting Companies

In this section, the extent to which companies' judgements on complying with regulations varies in regard to sustainability reporting status or not.

Figure 65 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the past experiences.

Biplot (a) of Figure 65 has 64.5 % explanatory power on Dimension 1 and 24.1 % explanatory power on Dimension 2. Projections of sub-items of regulation on Dimension 1 reflect that RE4 differentiates among others and dominates the model.

Biplot (b) of not reporting companies on Figure 65 indicate that Dimension 1 has 72.6 %, Dimension 2 has 20.9 % explanatory power. Profile projections of not reporting companies both on Dimension 1 in itself and Dimension 2 in itself have almost the same intervals so that sub-items are not differentiated to a large extent.

Figure 65: Reporting vs. Not Reporting Companies - Past

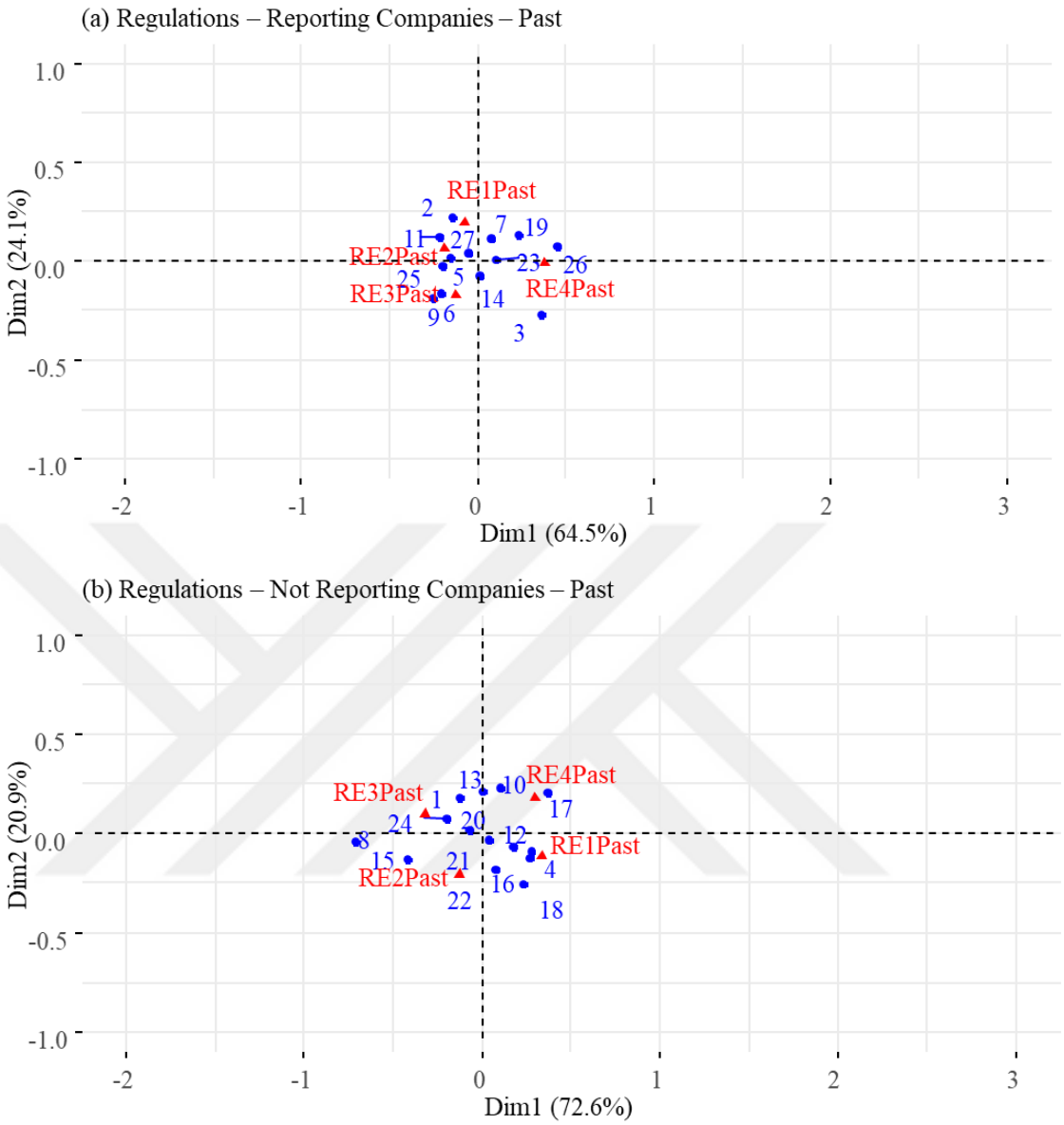


Figure 66 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the current situation (present).

Assessments of reporting and not reporting companies seem to be different from each other.

Reporting companies presented by biplot (a) of Figure 66 judge RE1 and RE3 with similar scores. Projections of profiles on Dimension 1 indicate that intervals to the origin from RE4 and RE2 are similar. None of the sub-items is differentiated in term of projections of profiles on Dimension 2 as well.

On the other hand, RE3 is differentiated by not reporting companies as seen with biplot (b) of Figure 66.

Figure 66: Reporting vs. Not Reporting Companies – Present

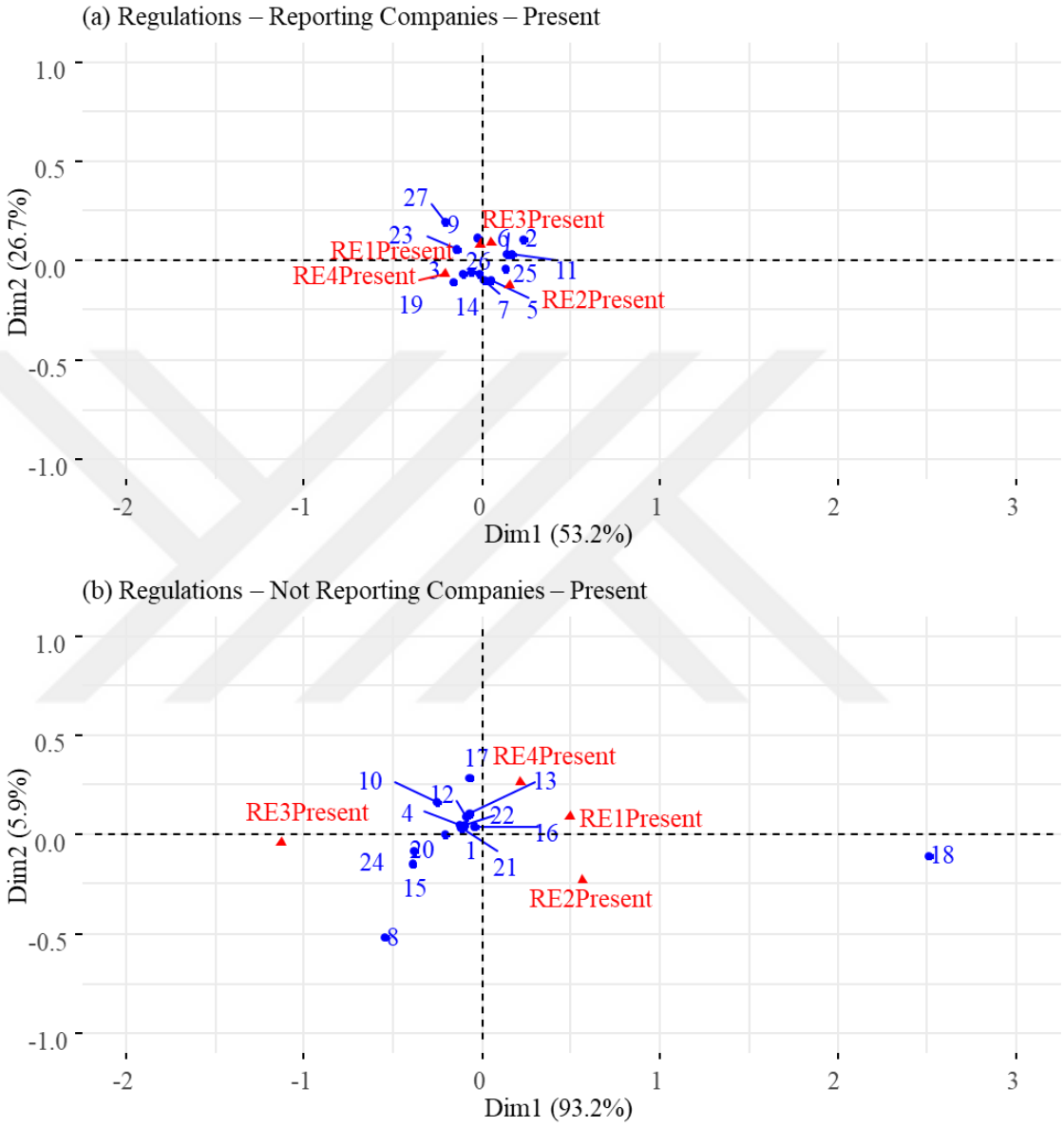
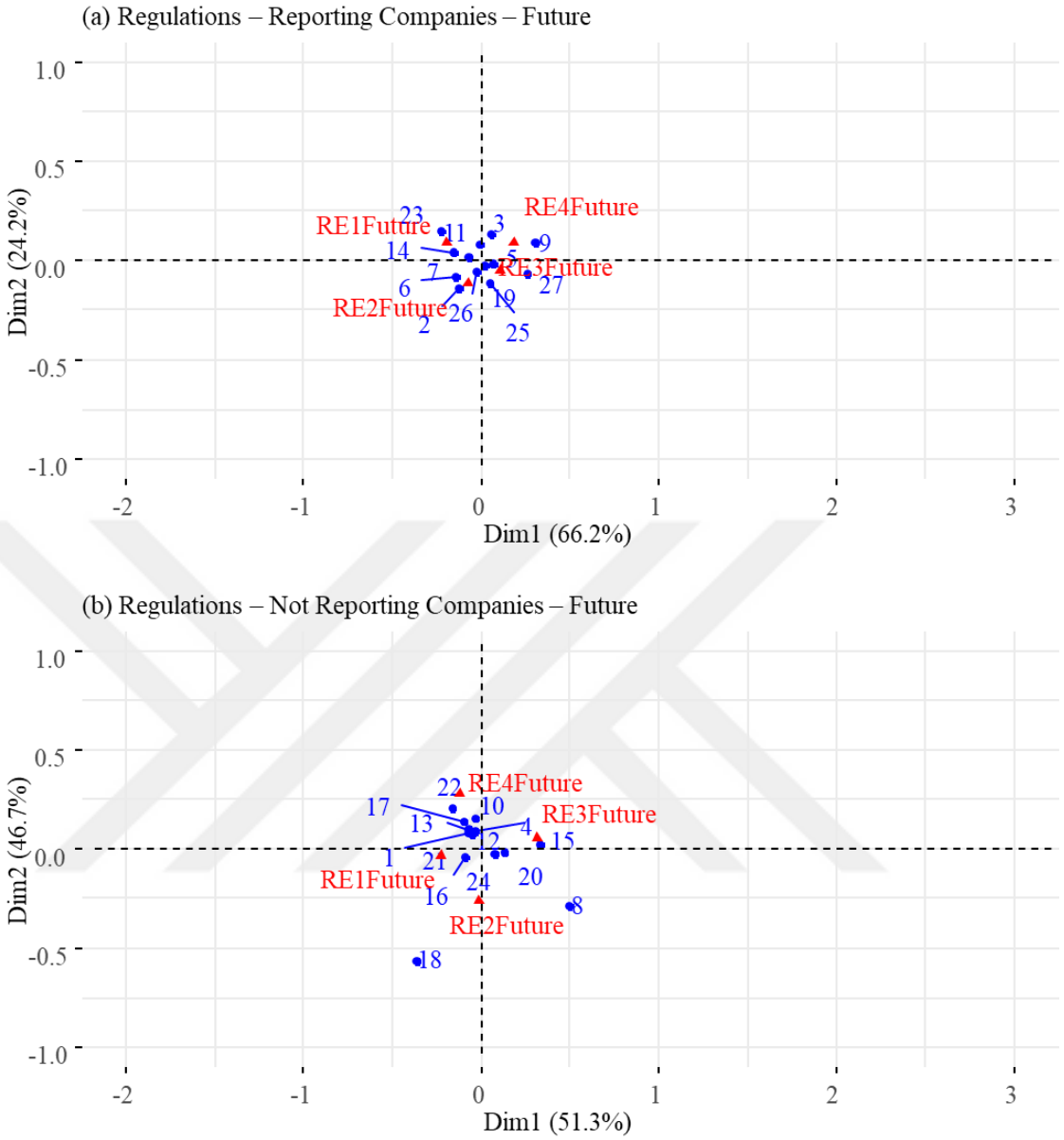


Figure 67 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the future expectations and foresights.

Assessments of reporting and not reporting companies seem to get closer for the future.

Figure 67: Reporting vs. Not Reporting Companies – Future



On biplot (a), Dimension 1 has 66.2 %, Dimension 2 has 24.2 % explanatory power. Profile projections of reporting companies both on Dimension 1 in itself, and Dimension 2 in itself have almost the same intervals.

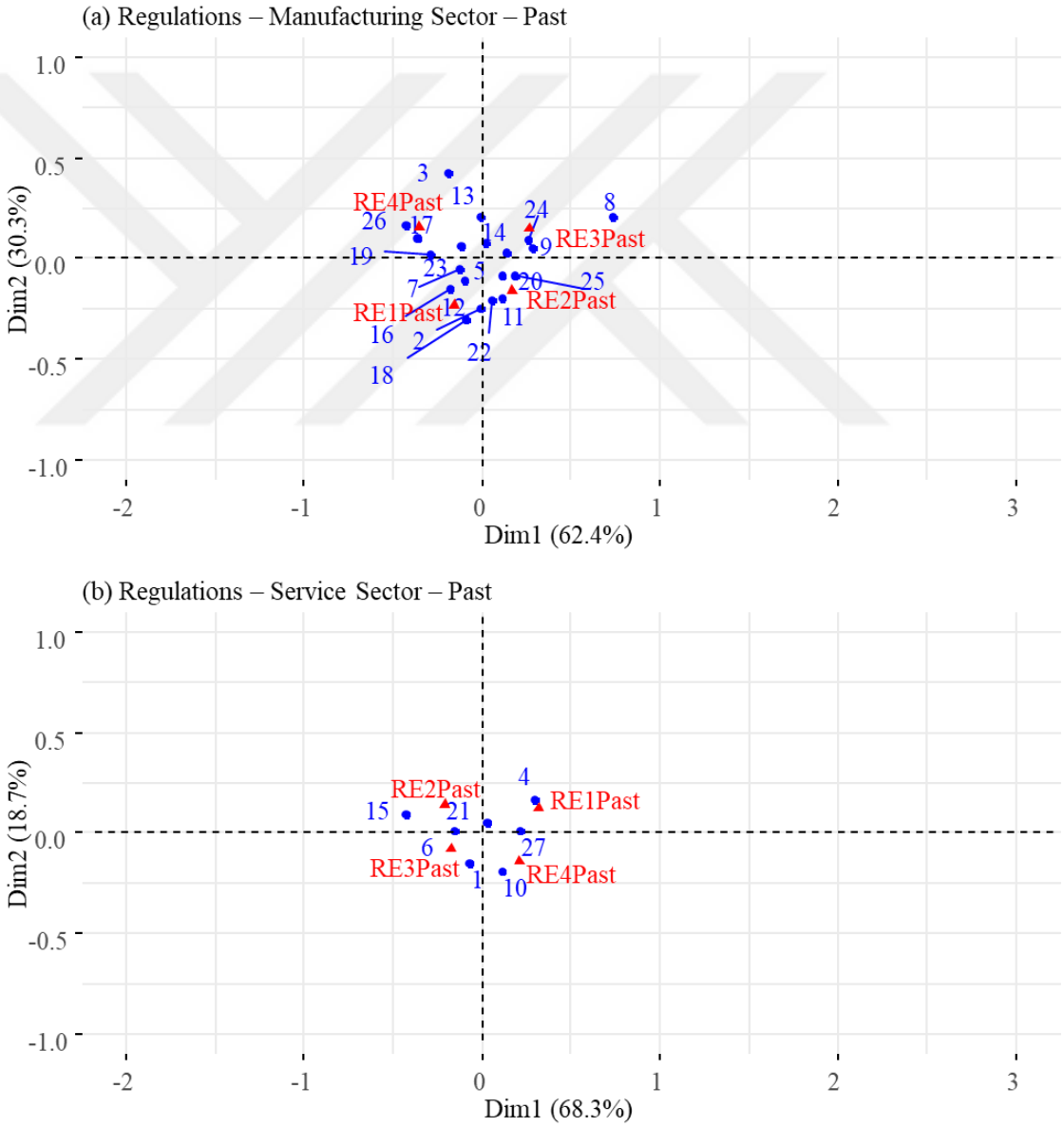
On biplot (b), Dimension 1 has 51.3 %, Dimension 2 has 46.7 % explanatory power. Although profile projections on Dimension 1 of not reporting companies seem to be closer, RE3 can be differentiated to some degree. Profile projections on Dimension 2 indicate that RE1, RE2 and RE4 have similar intervals. This can be interpreted as the differentiation of RE3 is getting lower and other sub-items are judged with similar scores.

6.5.3. Assessments of Manufacturing vs. Service Sector

In this section, the extent to which companies' judgements on complying with regulations varies in regard to being from manufacturing or service sector.

Figure 68 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the past experiences.

Figure 68: Manufacturing vs. Service Sector – Past



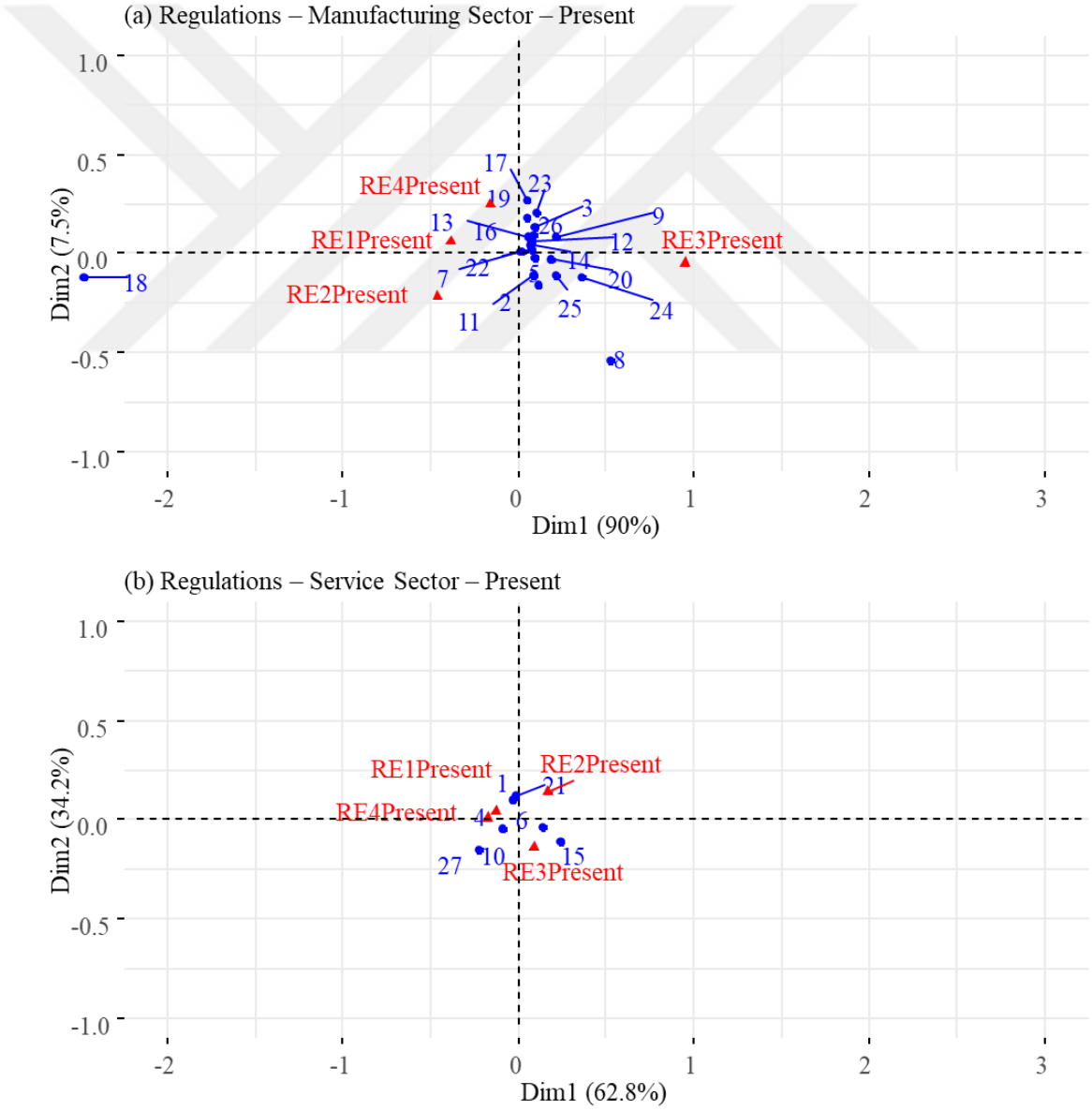
Biplot (a) of manufacturing sector shows that Dimension 1 has 62.4 %, Dimension 2 has 30.3 % explanatory power. Profile projections on Dimension 1 in

itself and Dimension 2 in itself have almost the same intervals. It is difficult to interpret a sub-item as dominant.

Biplot (b) of service sector indicates that Dimension 1 has 68.3 %, Dimension 2 has 18.7 % explanatory power. Profile projections on Dimension 1 and Dimension 2 imply no differentiation in terms of composition of regulations.

Figure 69 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the current situation (present).

Figure 69: Manufacturing vs. Service Sector – Present



For manufacturing sector, explanatory power of the graph is 97.5 % in general; Dimension 1 has 90 %, Dimension 2 has 7.5 % explanatory power. Projections of profiles on Dimension 1 reflect that RE3 differentiates among other sub-items.

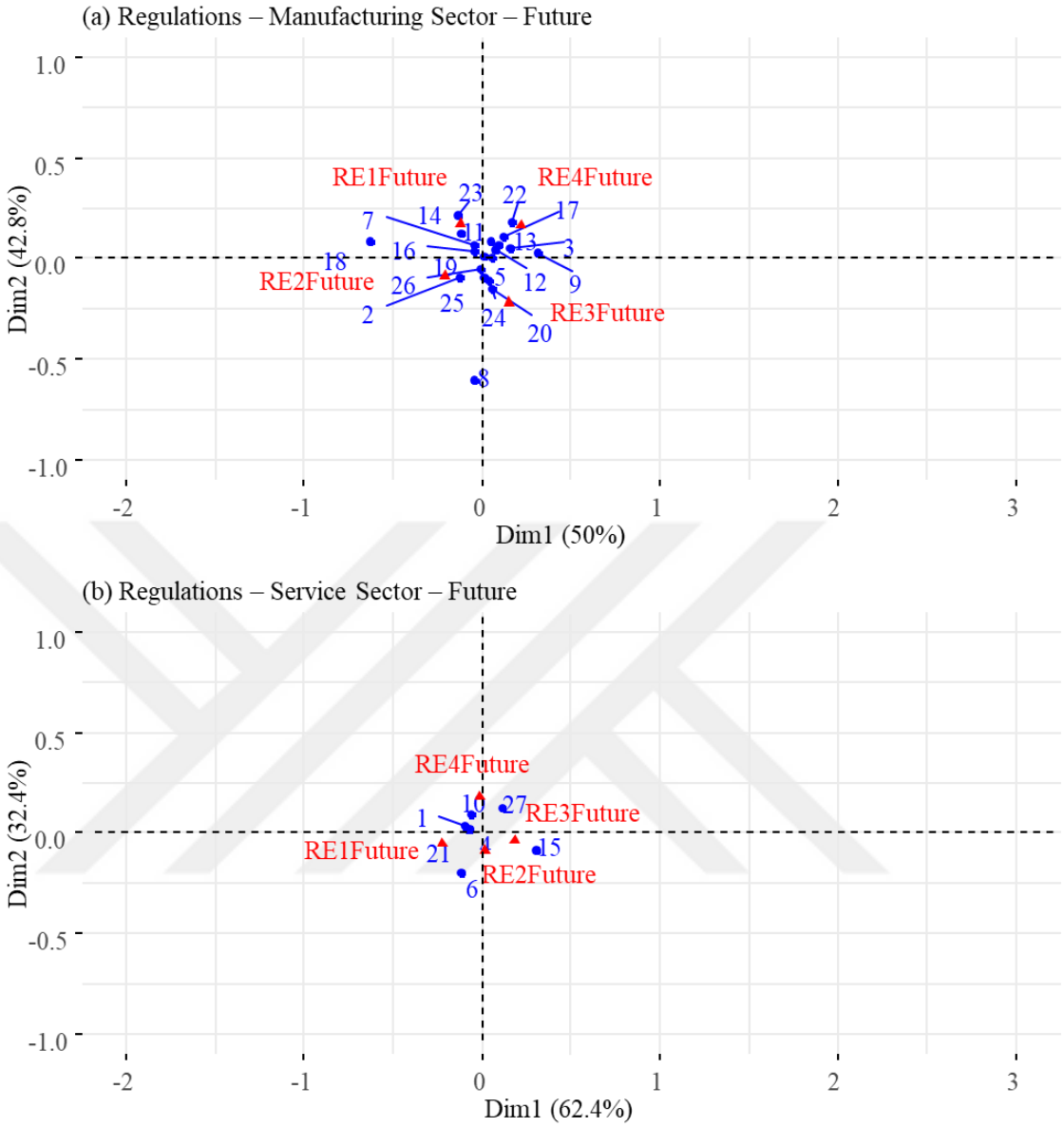
On biplot (b), for service sector, explanatory power of the graph is 97 % in general. Dimension 1 has 62.8 %, Dimension 2 has 34.2 % explanatory power. Accordingly, Dimension 2 has more contribution to total explanatory power on the graph representing manufacturing sector. Profile projections of reporting companies both on Dimension 1 in itself and Dimension 2 in itself have almost the same intervals. Only RE1 reflects a differentiation to some degree on Dimension 1. This means that respondents have given similar scores that are close to each other to all the four sub-item of regulations. Therefore, it can be interpreted that they have a holistic view on the composition of regulations.

Figure 70 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the future expectations and foresights.

Biplot (a) of Figure 70 presents a similar display to the assessments for the past. Dimension 1 has 50 %, Dimension 2 has 42.8 % explanatory power. Profile projections on Dimension 1 in itself and Dimension 2 in itself have almost the same intervals. Only RE3 reflects a differentiation to some degree on Dimension 2.

Biplot (b) of Figure 70 demonstrates that Dimension 1 has 62.4 %, Dimension 2 has 32.4 % explanatory power. It is seen that all sub-items are positioned around the origin with similar intervals. It means that the scores are close to average. Therefore, it can be interpreted that they have a holistic view on the composition of regulations.

Figure 70: Manufacturing vs. Service Sector - Future

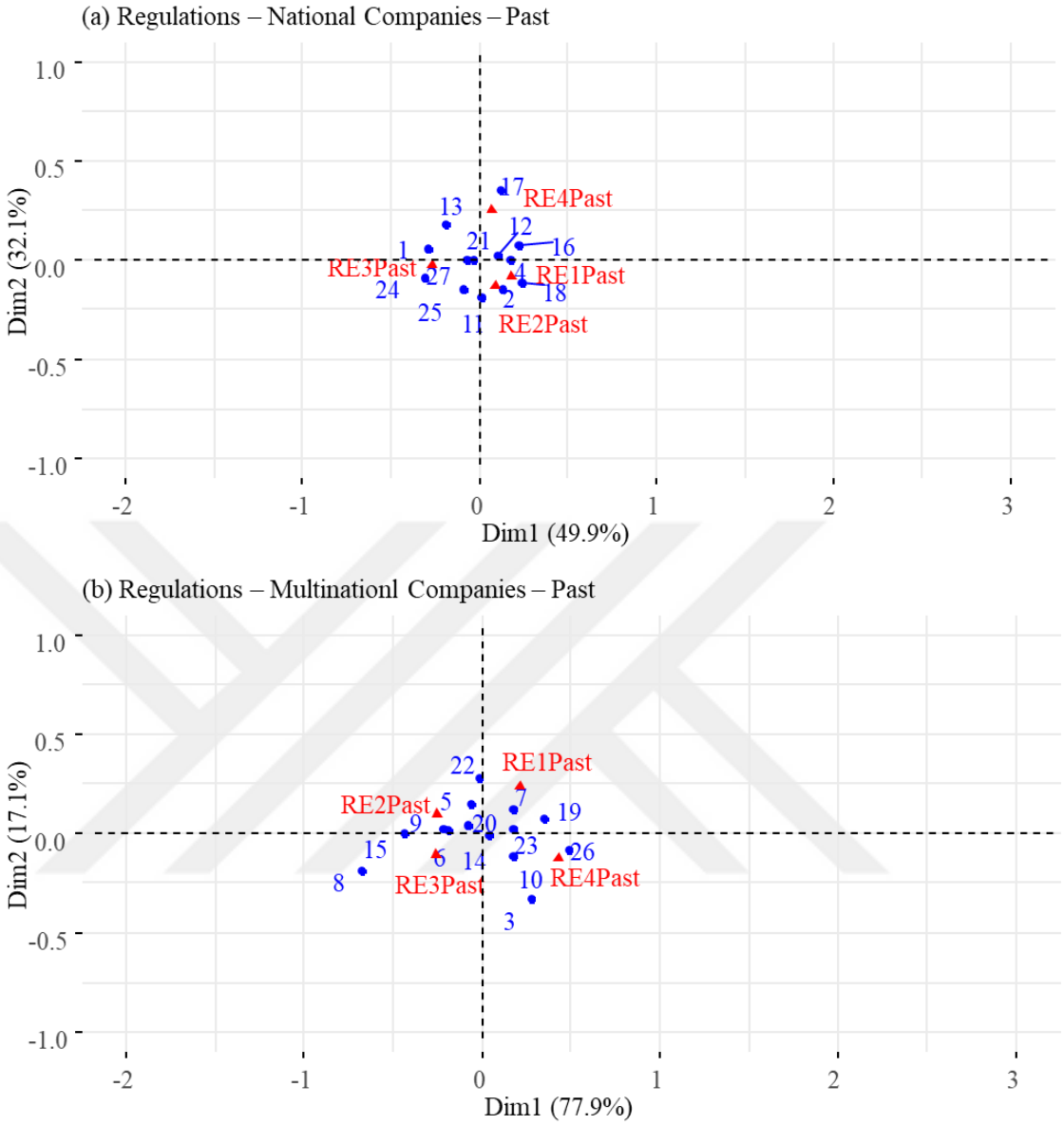


6.5.1. Assessments of National vs. Multinational Companies

In this section, the extent to which companies' judgements on complying with regulations varies in regard to being national or multinational.

Figure 71 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the past experiences.

Figure 71: National vs. Multinational Companies – Past

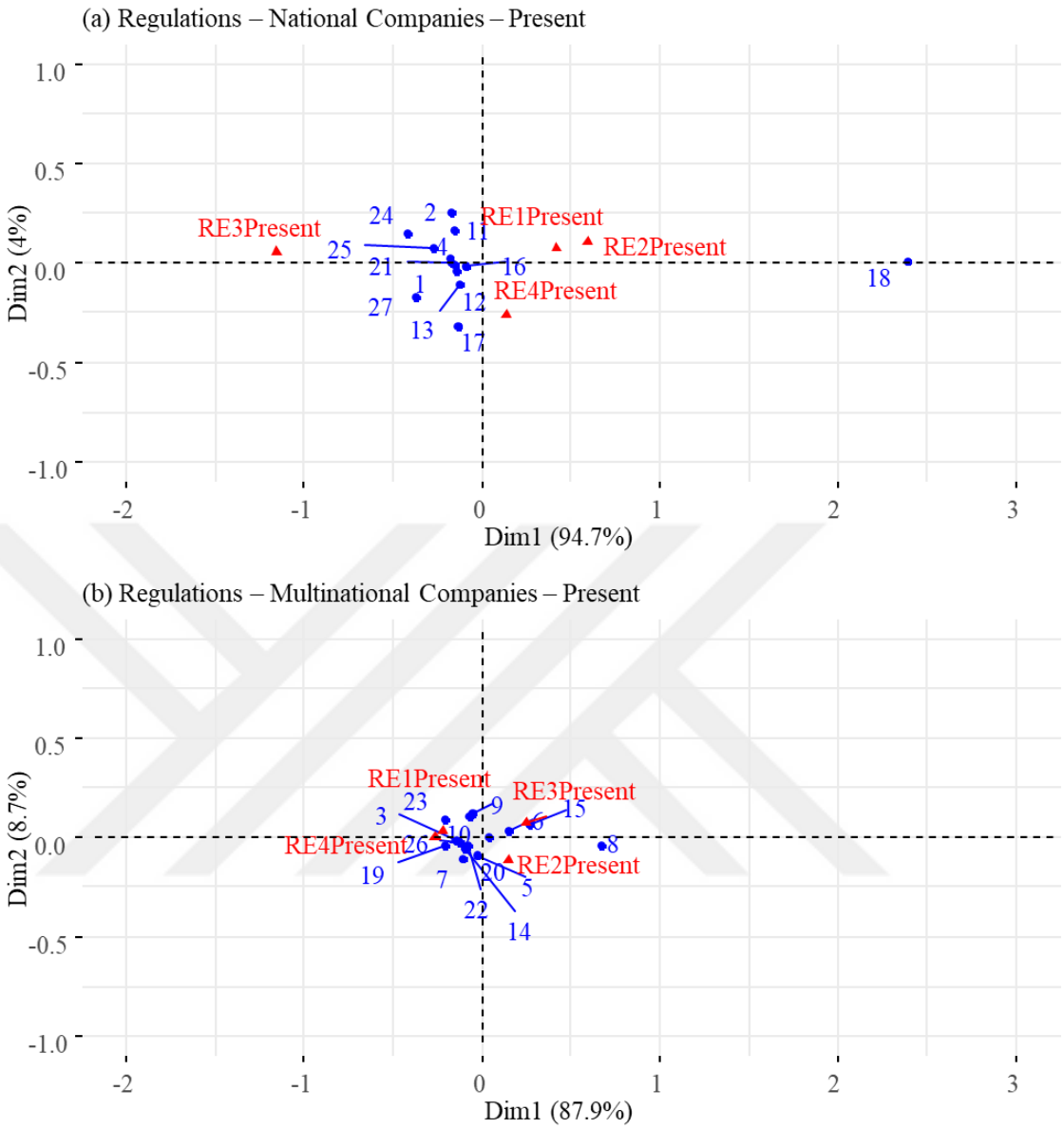


Biplot (a) of national companies explains the display with 82 %. Dimension 1 has 49.9 %, Dimension 2 has 32.1 % explanatory power. Profile projections on Dimension 1 indicate the differentiation of RE3.

Biplot (b) of multinational companies demonstrates that Dimension 1 has 77.9 %, Dimension 2 has 17.1 % explanatory power. Profile projections on Dimension 1 indicate that RE2 and RE3 are judged with the similar loadings. RE4 on Dimension 1, RE1 on Dimension 2 have differentiation in some degree.

Figure 72 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the current situation (present).

Figure 72: National vs. Multinational Companies – Present

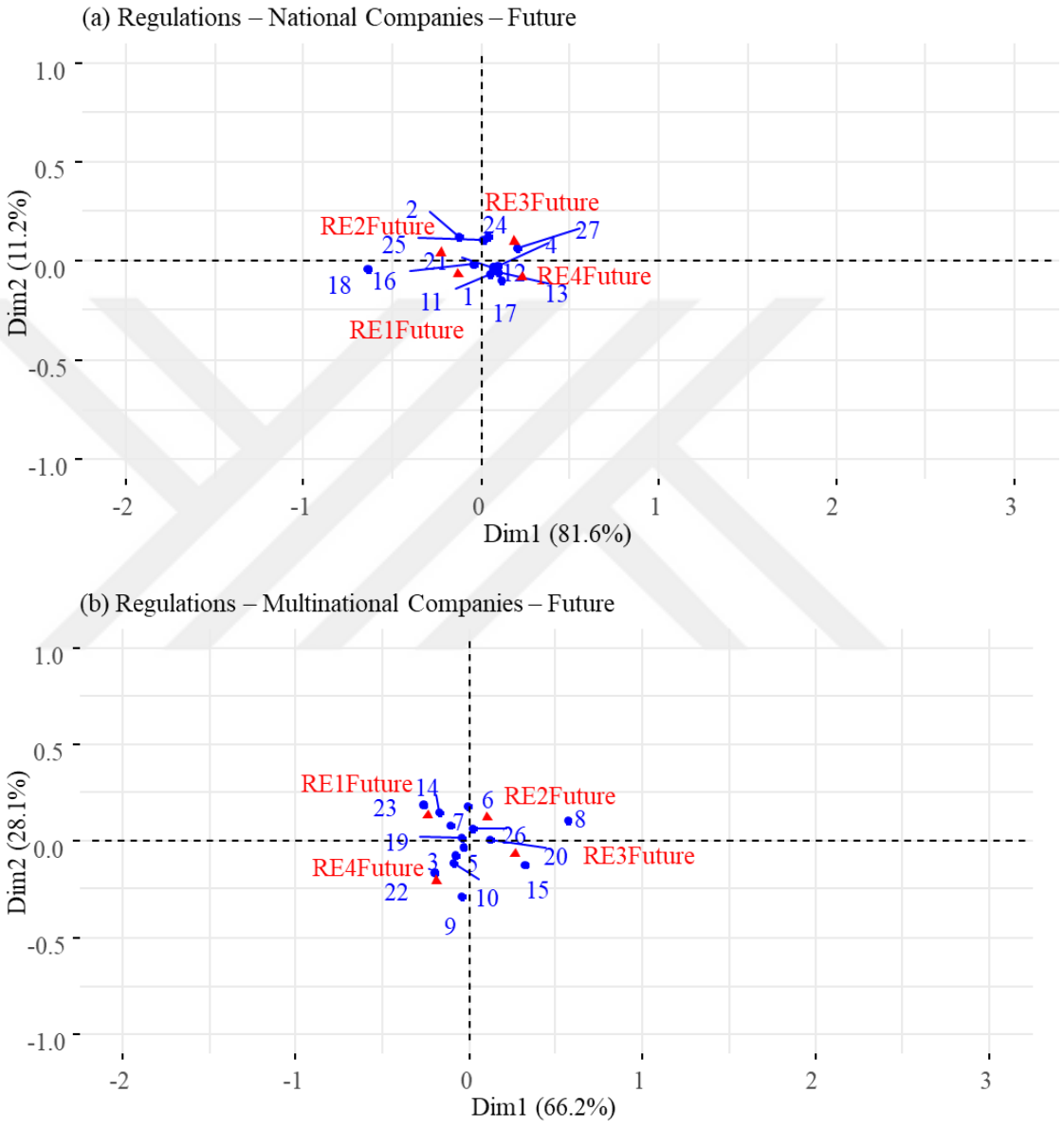


Biplot (a) of national companies present that Dimension 1 has 94.7 %, Dimension 2 has 4 % explanatory power. As Dimension 1 explains the 94.7 % of the model, projections of the profiles on Dimension 1 are important. RE1, RE2 and RE4 are positioned close to each other. On the other hand, RE3 is situated away from them. Consequently, the biplot (a) reflects that RE3 dominates the model. When the companies demonstrated by blue points are analysed, company number 18 is remarkable. It can be interpreted as an outlier.

Biplot (b) of multinational companies demonstrates that Dimension 1 has 87.9 %, Dimension 2 has 8.7 % explanatory power. Profile projections on Dimension 1 and Dimension 2 are close to each other. Therefore, it can be interpreted that they have a holistic view on the composition of regulations for present.

Figure 73 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the future expectations and foresights.

Figure 73: National vs. Multinational Companies - Future



Biplot (a) of national presents that Dimension 1 has 81.6 %, Dimension 2 has 11.2 % explanatory power. It is seen that all sub-items are positioned around the origin with similar intervals. It means that the scores are close to average. Therefore, it can be interpreted that they have a holistic view on the composition of regulations for the future.

Biplot (b) of multinational companies demonstrate that Dimension 1 has 66.2 %, Dimension 2 has 28.1 % explanatory power. Profile projections on Dimension 1 indicate that RE1 and RE4 are judged with the similar loadings. Profile projections on Dimension 2 show that RE1 and RE2 are judged with the similar loadings. RE3 seems to have a differentiation in some degree on Dimension 1.

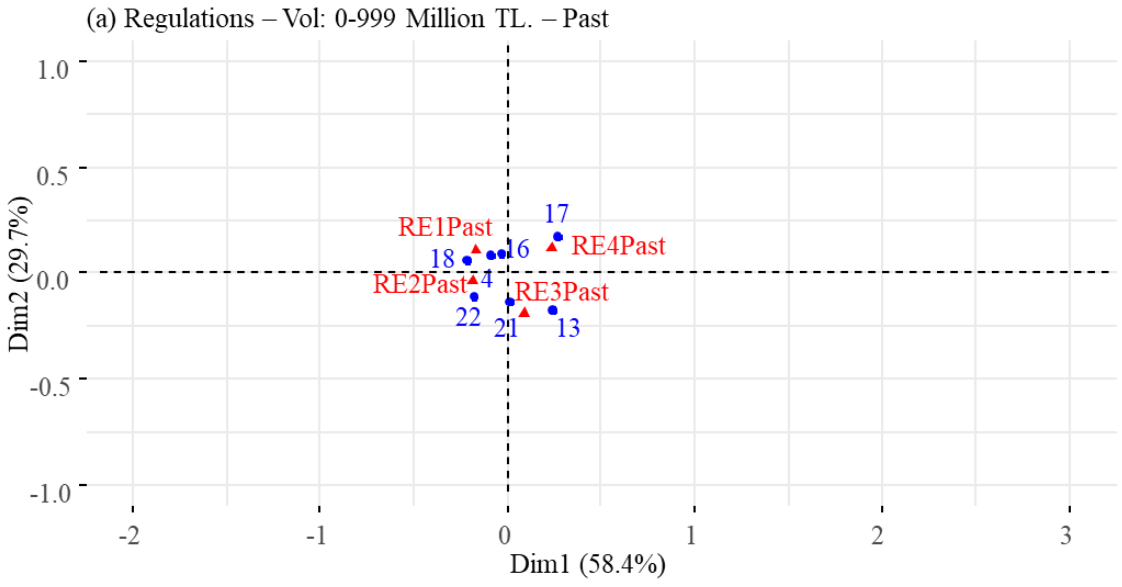
6.5.2. Assessments Related to Business Volume

In this section, the extent to which companies' judgements on complying with regulations varies in regard to annual business volume.

Figure 74 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the past experiences.

Biplot (a) of Figure 74 indicates that Dimension 1 has 58.4 %, Dimension 2 has 29.7 % explanatory power while biplot (b) of Figure 74 presents that Dimension 1 has 67.6 %, Dimension 2 has 22.6 % explanatory power. Taking each case independently, it is seen on both of the displays that all sub-items are positioned around the origin with similar intervals. It means that the scores are close to average. Therefore, it can be interpreted that they have a holistic view on the composition of regulations for the past.

Figure 74: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past



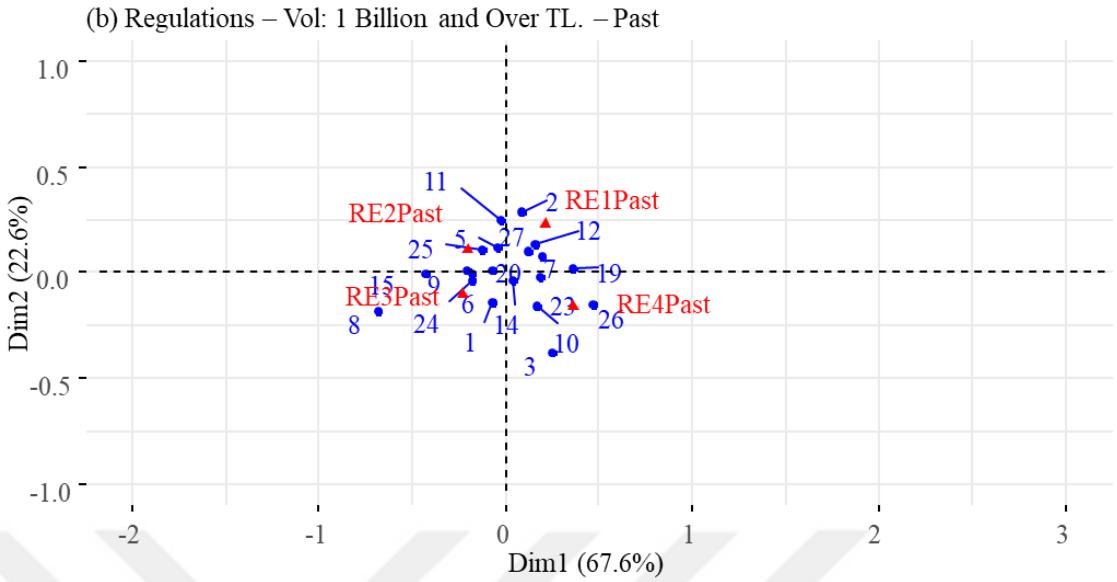
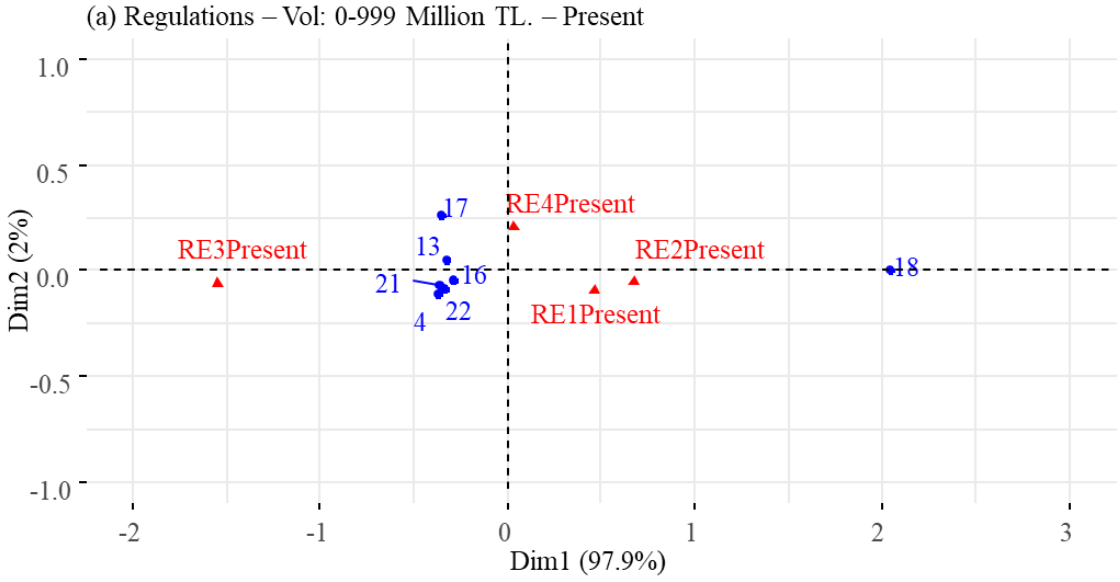
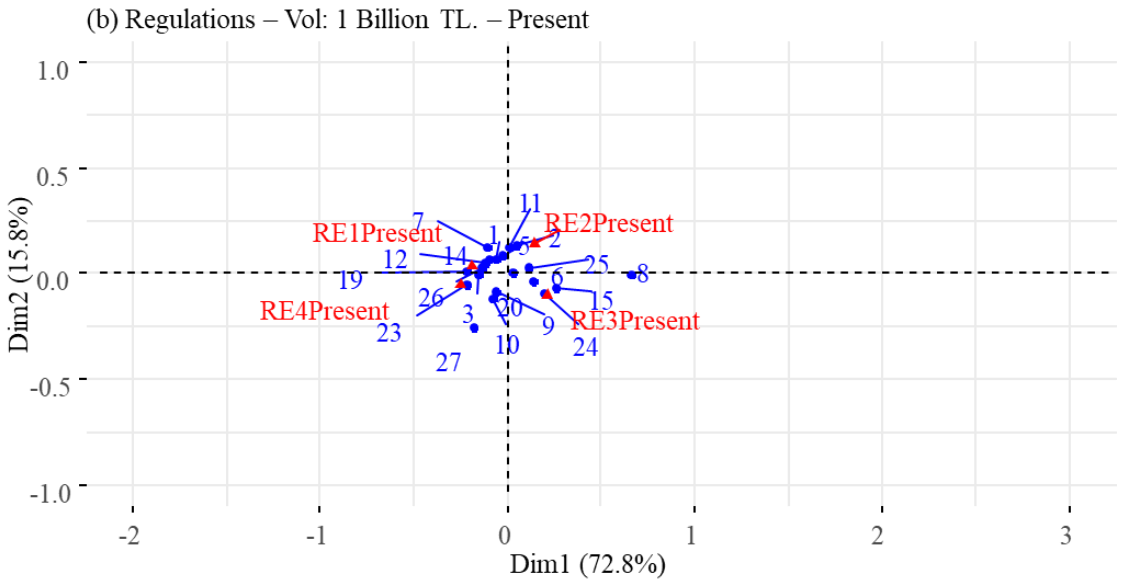


Figure 75 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the current situation (present).

Figure 75: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present





Biplot (a) of Figure 75 has 99.9 % explanatory power in general; Dimension 1 has 97.9 %, Dimension 2 has 2 % explanatory power. Projections of the profiles on Dimension 1 reveal that RE1, RE2 and RE4 are positioned close to each other. On the other hand, RE3 is situated away from them. Consequently, the biplot (b) reflects that RE3 dominates the model. In terms of companies, company number 18 is the outlier.

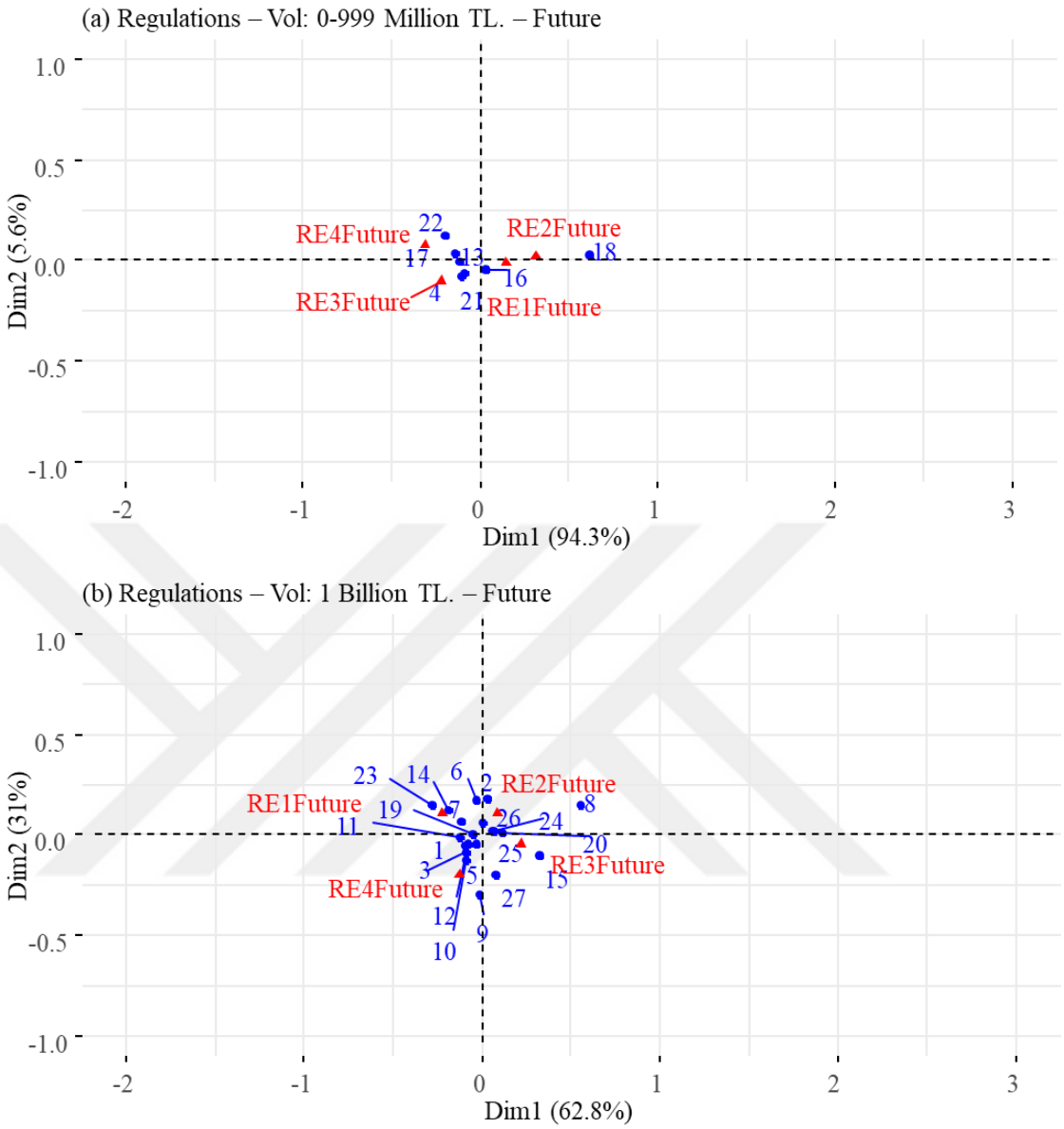
Companies with at least 1 billion TL. annual business volume as presented by biplot (b) judge the current situation in parallel with the past. Their view of composition of regulations is holistic.

Figure 76 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the future expectations and foresights.

Assessments of the companies with less than 1 billion TL. annual business volume as presented by biplot (a) seem to become more holistic. The biplot (a) of Figure 76 indicates that the profiles get closer to each other.

As for the biplot (b) of Figure 76, it is seen that the display has 93.8 % total explanatory power. Projections of the profiles on Dimension 2 indicate that RE4 is differentiated in some degree.

Figure 76: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future



6.6. Findings for Risk Management

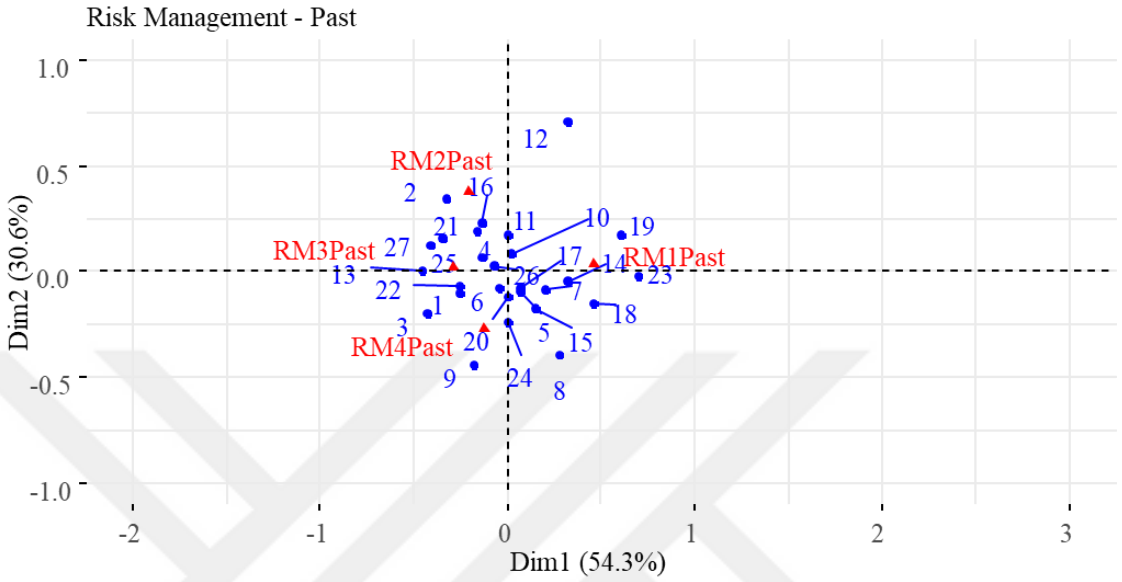
Under this topic, judgements of companies regarding to the components related with risk management are discussed.

6.6.1. General Characteristics of Past - Present – Future Assessments

In this section, RM1 symbolizes reducing financial risks by providing corporate transparency, RM2 symbolizes reducing environmental risks through understanding environmental resource constraints, RM3 symbolizes reducing social

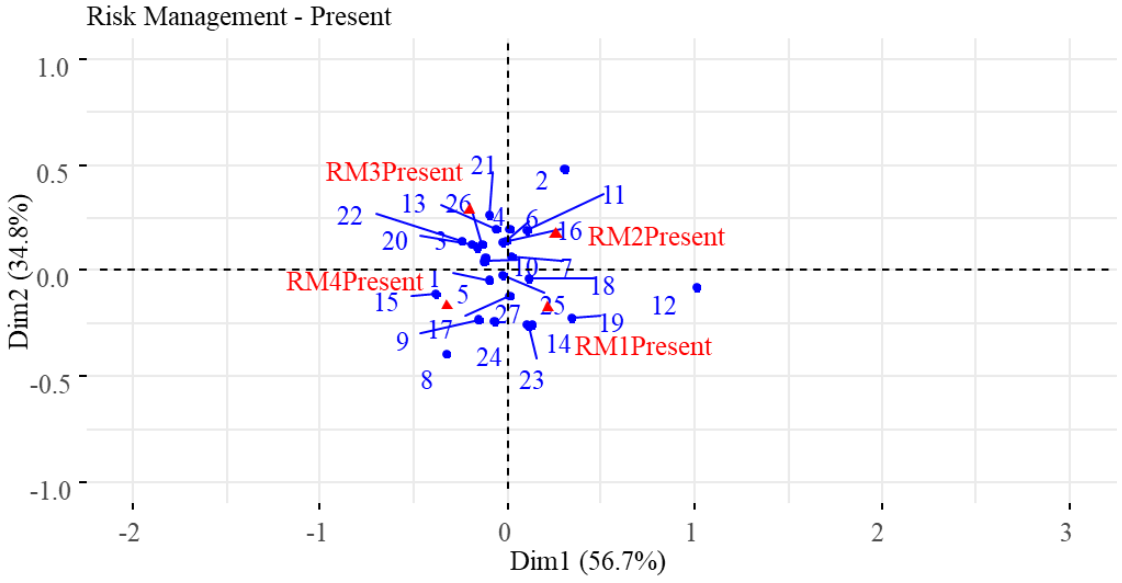
risks through respecting for human rights and RM4 symbolizes reducing the risk of entering new markets.

Figure 77: Risk Management – Past



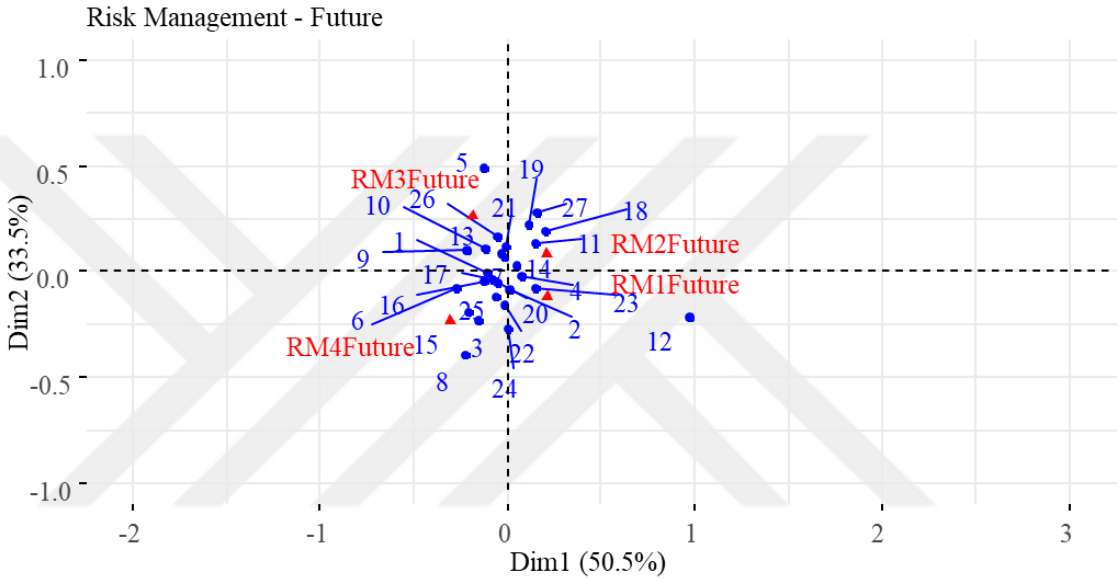
As demonstrated in Figure 77, Dimension 1 has 54.3 %, Dimension 2 has 30.6 % explanatory power. Total quality of display equals to 84.9 %. Projections of the profiles on Dimension 1 indicate that RM2, RM3 and RM4 are very close to each other. On the other hand, RM1 is situated away from them and differentiated. Consequently, the biplot reflects that RM1 dominates the model.

Figure 78: Risk Management – Present



As demonstrated in Figure 78, Dimension 1 56.7 %, Dimension 2 has 34.8 % explanatory power. Total quality of display equals to 91.5 %. Projections of the profiles on Dimension 1 and Dimension 2 indicate that sub-items are not differentiated to a large extent. It can be interpreted as respondents judge all items with similar scores and they have a holistic view on the composition of risk management dimensions for present.

Figure 79: Risk Management – Future



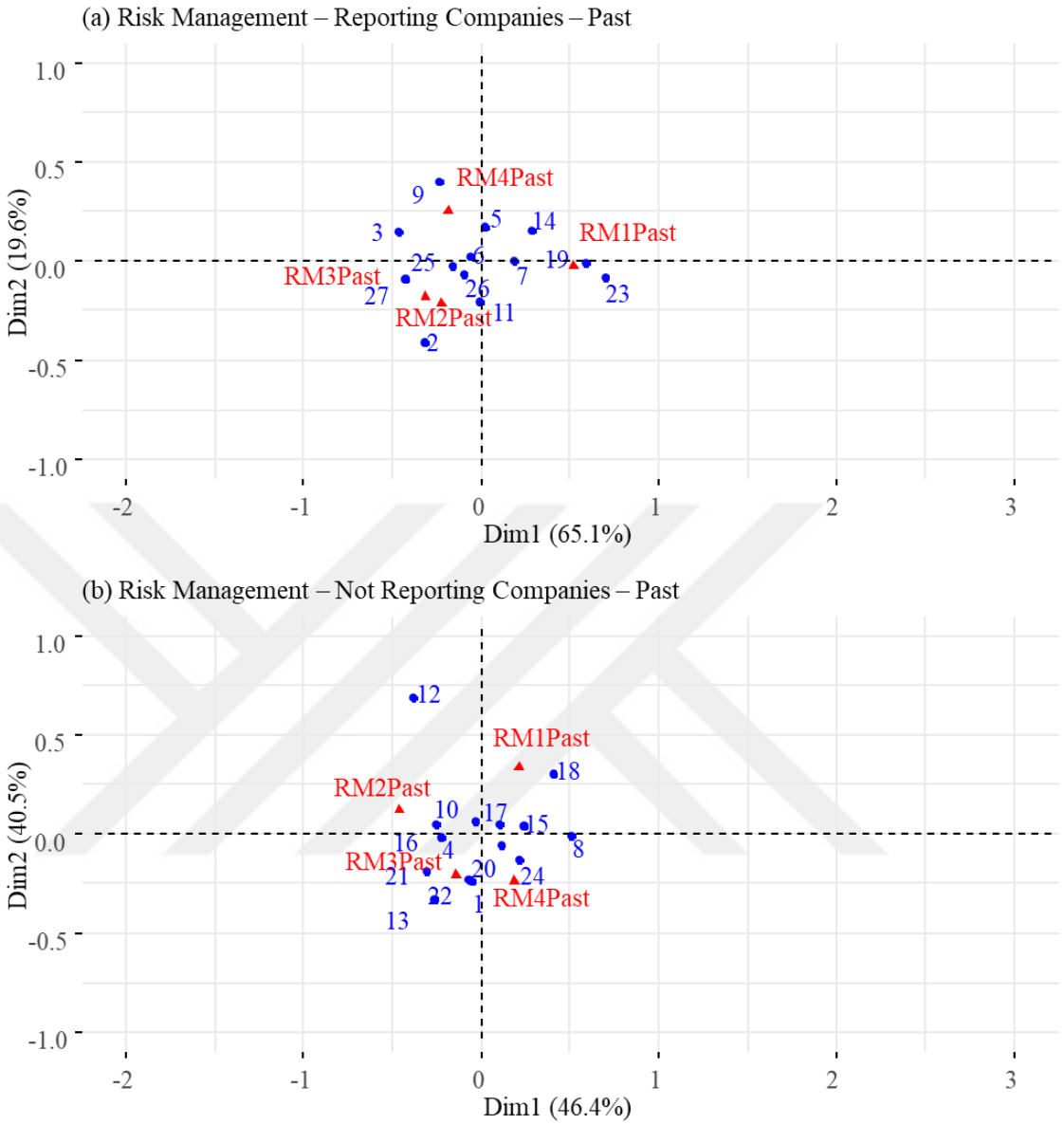
As demonstrated in Figure 79, Dimension 1 50.5 %, Dimension 2 has 33.5 % explanatory power. Total quality of display equals to 84 %. Profile projections on Dimension 1 indicate that RE1 and RE2 are judged with similar loadings. RE3 on Dimension 2 has differentiation in some degree.

6.6.2. Assessments of Reporting vs. Not Reporting Companies

In this section, the extent to which companies' judgements on risk management varies in regard to sustainability reporting status or not.

Figure 80 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the past experiences.

Figure 80: Reporting vs. Not Reporting Companies – Past

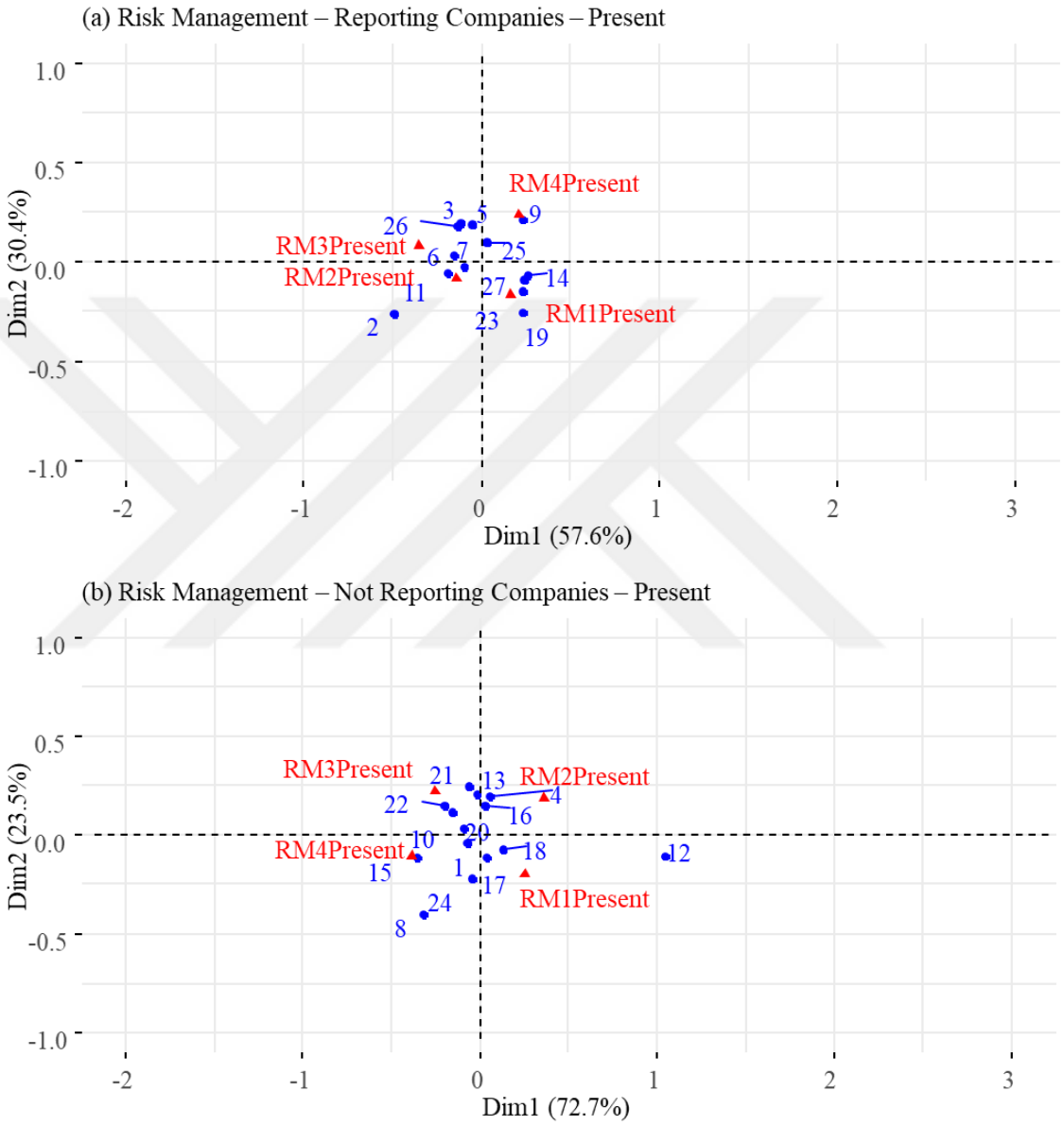


As it is seen with biplot (a) of Figure 80, Dimension 1 explains the 65.1% of the model whereas Dimension 2 has 19.6 % explanatory power. Projections of profiles on Dimension 1 reflect that RM2, RM3 and RM4 are positioned close to each other, while RM1 is situated away and differentiates.

As for the biplot (b) of Figure 80, Dimension 1 explains the 46.4 % of the model whereas Dimension 2 has 40.5 % explanatory power. Although projections of profiles on Dimension 1 are close to each other, on Dimension 2, RM1 is situated away and differentiates as it is among the reporting companies. Therefore, RM1 dominates the model both for reporting and not reporting companies.

Figure 81 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the current situation (present).

Figure 81: Reporting vs. Not Reporting Companies – Present



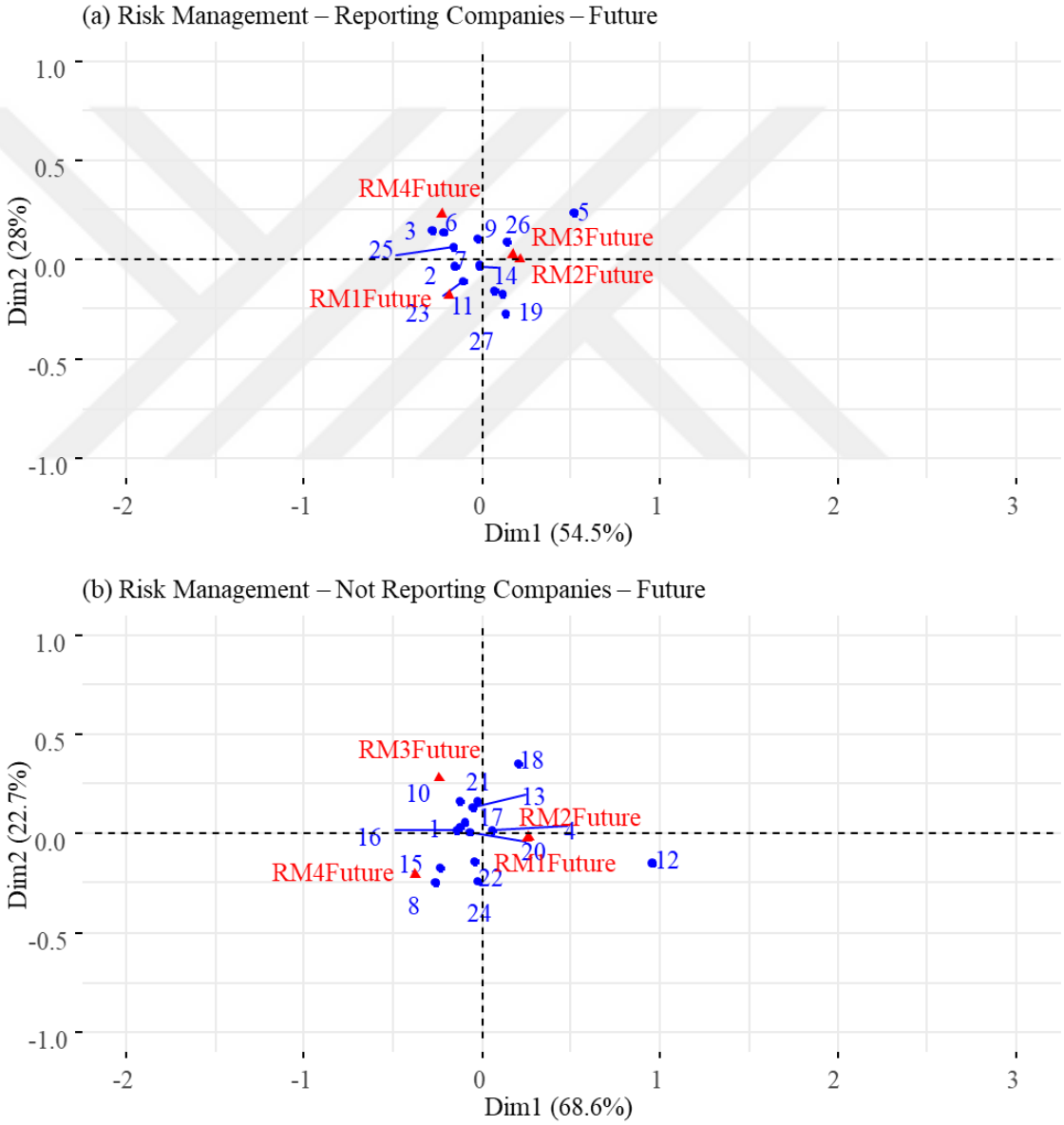
As it is seen on biplot (a) of Figure 81, Dimension 1 explains the 57.6 % of the model whereas Dimension 2 has 30.4 % explanatory power. Although projections of profiles on Dimension 1 are close to each other, on Dimension 2, RM4 is situated away and differentiates

As for the biplot (b) of Figure 81, Dimension 1 explains the 72.7 % of the model whereas Dimension 2 has 23.5 % explanatory power. In terms of not reporting

companies, sub-items are situated as with similar and close intervals on Dimension 1 and on Dimension 2. None of the sub-items are differentiated meaning that respondents distribute the 100 points to four sub-items with little differences.

Figure 82 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the future expectations and foresights.

Figure 82: Reporting vs. Not Reporting Companies – Future



As it is seen on biplot (a) of Figure 82, Dimension 1 explains the 54.5 % of the model whereas Dimension 2 has 28 % explanatory power. In terms of projections

of profiles on Dimension 1, RM4 and RM1 are close to each other and RM2 and RM3 are very close as well. It seems that respondents judge the risk management components as a composition of two groups.

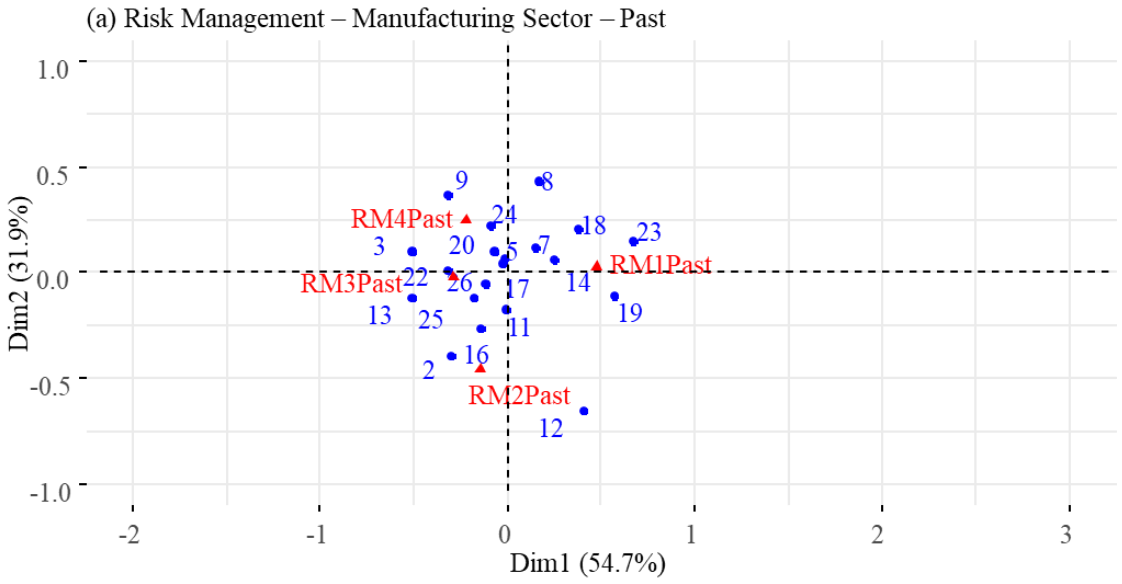
As for the biplot (b) of Figure 82, Dimension 1 explains the 68.6 % of the model whereas Dimension 2 has 22.7 % explanatory power. In terms of the projections of profiles on Dimension 1, RM1 and RM2 are very close to each other. In terms of the projections of profiles on Dimension 2, RM3 is differentiated from others.

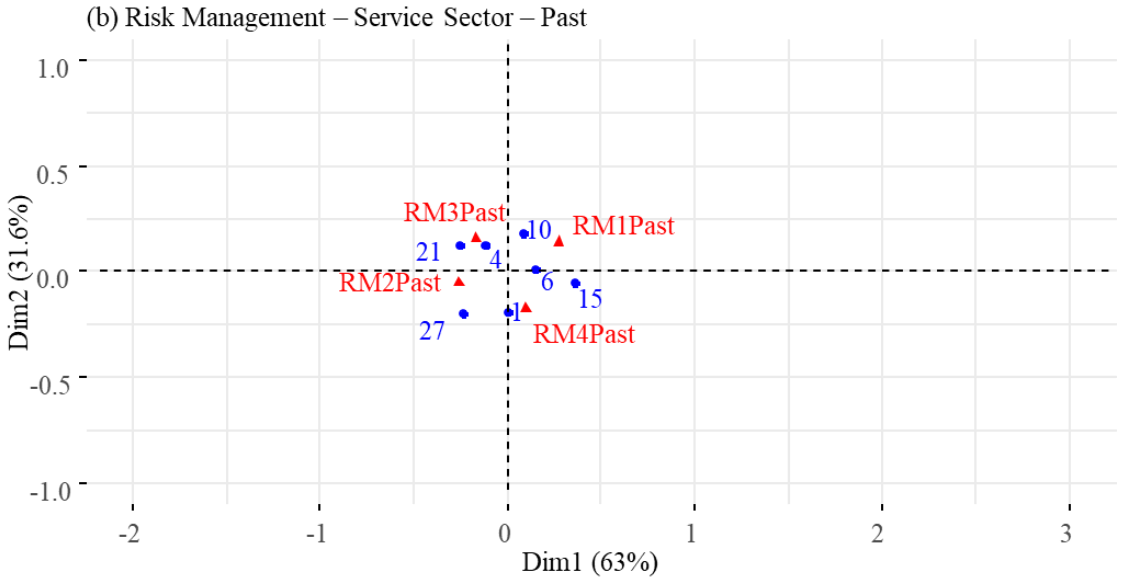
6.6.3. Assessments of Manufacturing vs. Service Sector

In this section, the extent to which companies' judgements on risk management varies in regard to being from manufacturing or service sector.

Figure 83 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the past experiences.

Figure 83: Manufacturing vs. Service Sector – Past





Biplot (a) of Figure 83 shows that Dimension 1 has 54.7 %, Dimension 2 has 31.9 % explanatory power. Profile projections on Dimension 1 indicate that RM2, RM3 and RM4 are positioned closely. However, RM1 is situated away from these and it can be interpreted as RM1 dominates the display. Profile projections on Dimension 2 indicate that, RM2 is judged as differentiated.

Biplot (b) of Figure 83 indicates that Dimension 1 has 63 %, Dimension 2 has 31.6 % explanatory power. Profile projections on Dimension 1 and Dimension 2 imply no differentiation in terms of composition of risk management for the past.

Figure 84 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the current situation (present).

Biplot (a) of manufacturing sector shows that Dimension 1 has 58.6 %, Dimension 2 has 32.4 % explanatory power. Profile projections on Dimension 1 indicate sub-items are situated with similar and close intervals on Dimension 1. None of the sub-items are differentiated meaning that respondents distribute the 100 points to four sub-items with little differences. Profile projections on Dimension 2 reveal that RM3 presents differentiation in some degree.

Biplot (b) of service sector indicates that Dimension 1 has 56.7 %, Dimension 2 has 38.7 % explanatory power. It is seen that all sub-items are positioned around the origin with similar intervals. It means that the scores are close to average.

Therefore, it can be interpreted that they have a holistic view on the composition of regulations.

Figure 84: Manufacturing vs. Service Sector – Present

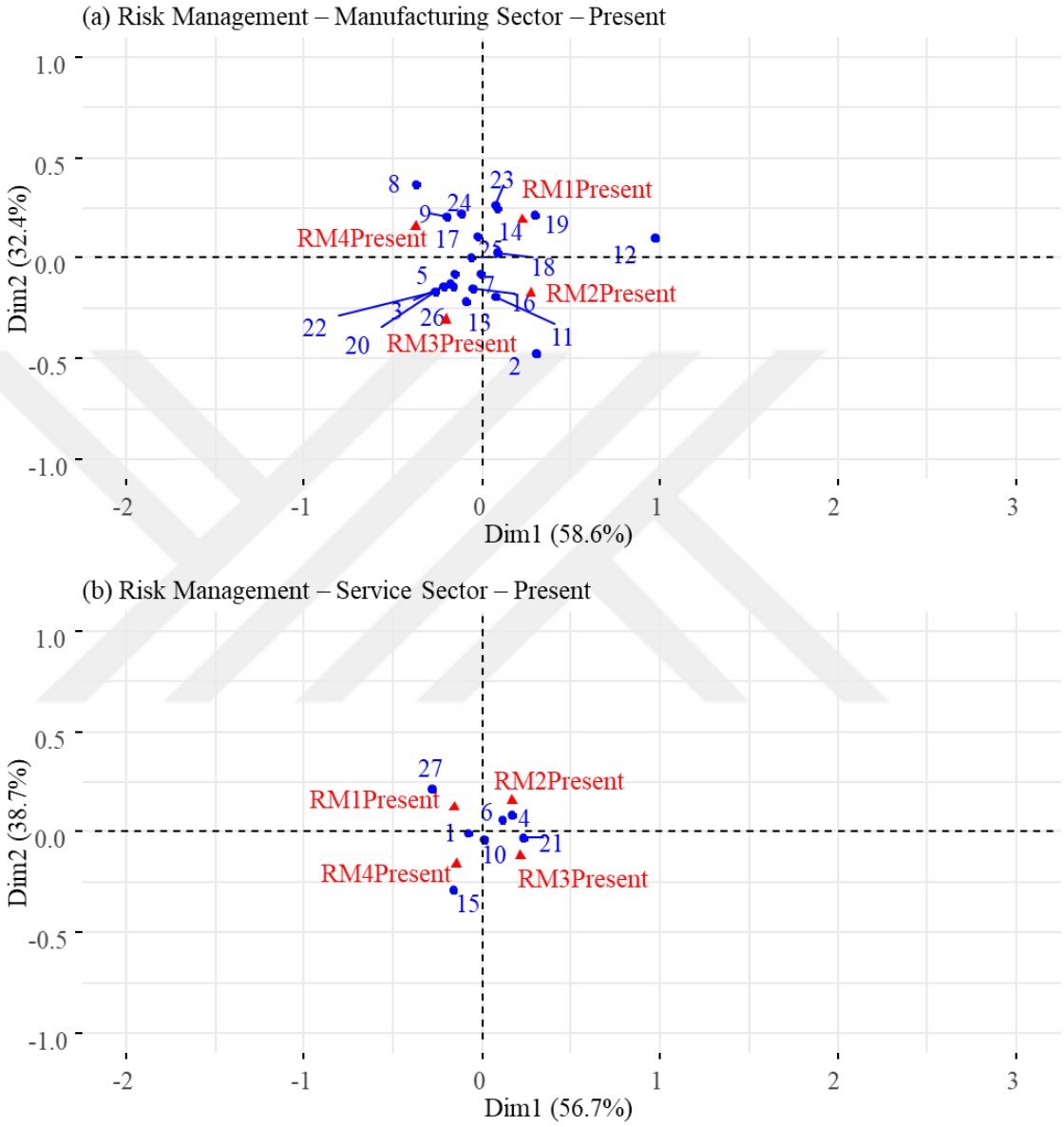


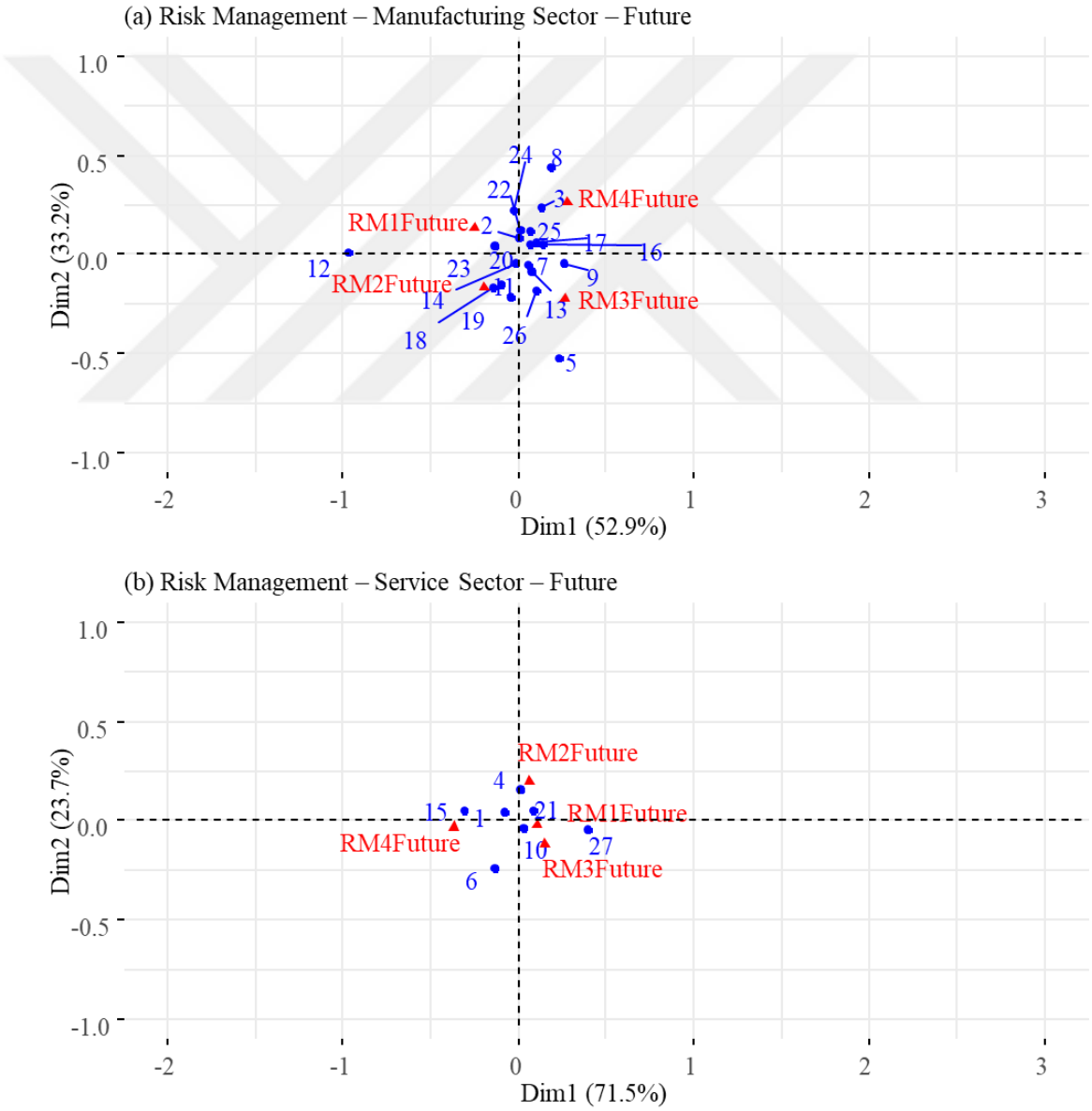
Figure 85 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the future expectations and foresights.

Biplot (a) of Figure 85 shows that Dimension 1 has 52.9 %, Dimension 2 has 33.2 % explanatory power. Profile projections on Dimension 1 indicate RM1 and RM2 are situated closely, while RM3 and RM4 are positioned close to each other. It

seems that respondents judge the risk management components as a composition of two groups.

Biplot (b) of Figure 85 indicates that Dimension 1 has 71.5 %, Dimension 2 has 23.7 % explanatory power. It is seen from projections of the profiles on Dimension 1 that RM1, RM2 and RM3 are very close to each other. On the other hand, RM4 is situated away from them. Consequently, the biplot reflects that RM4 dominates the model.

Figure 85: Manufacturing vs. Service Sector – Future

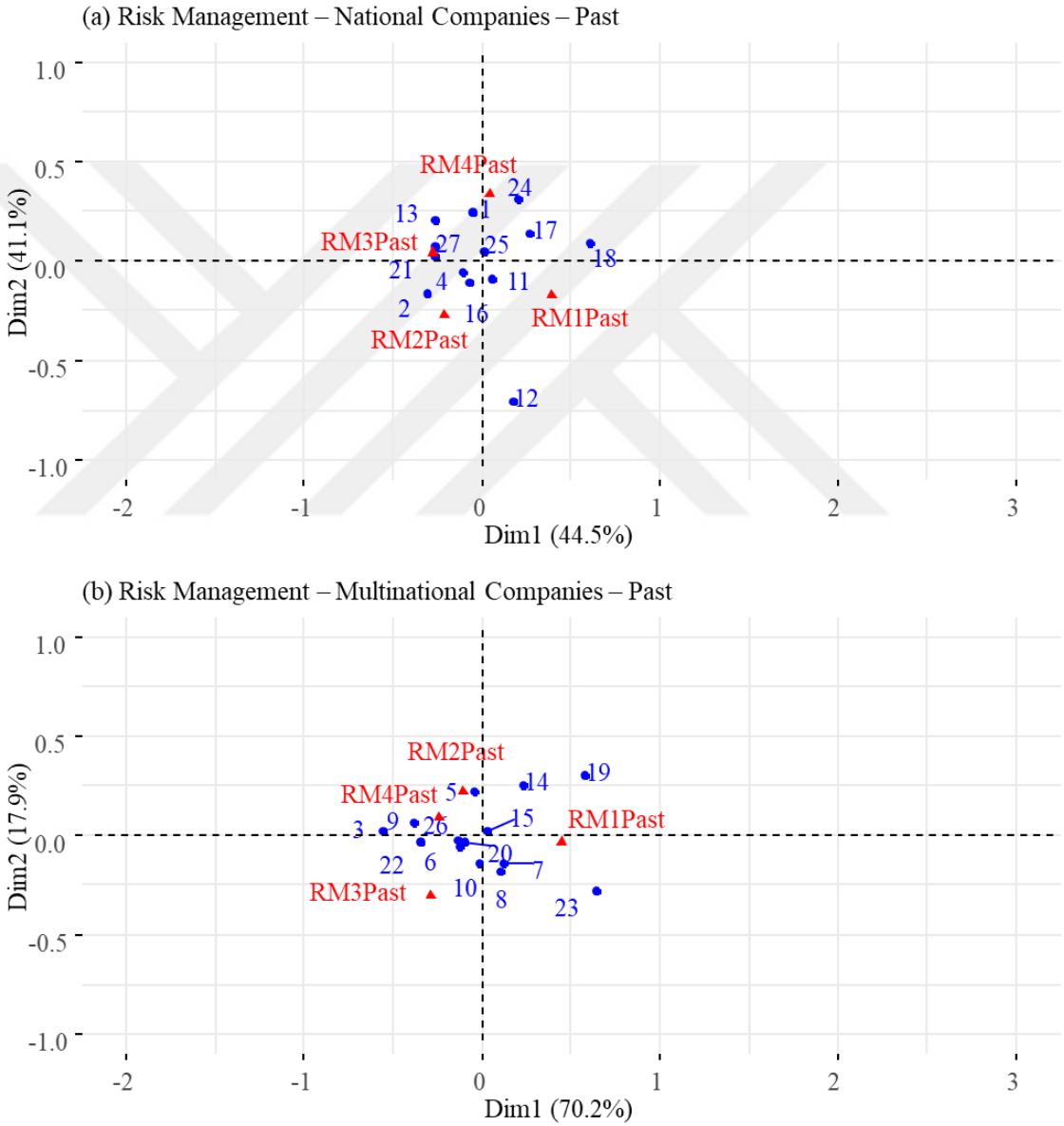


6.6.4. Assessments of National vs. Multinational Companies

In this section, the extent to which companies' judgements on risk management varies in regard to being national or multinational.

Figure 86 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the past experiences.

Figure 86: National vs. Multinational Companies – Past

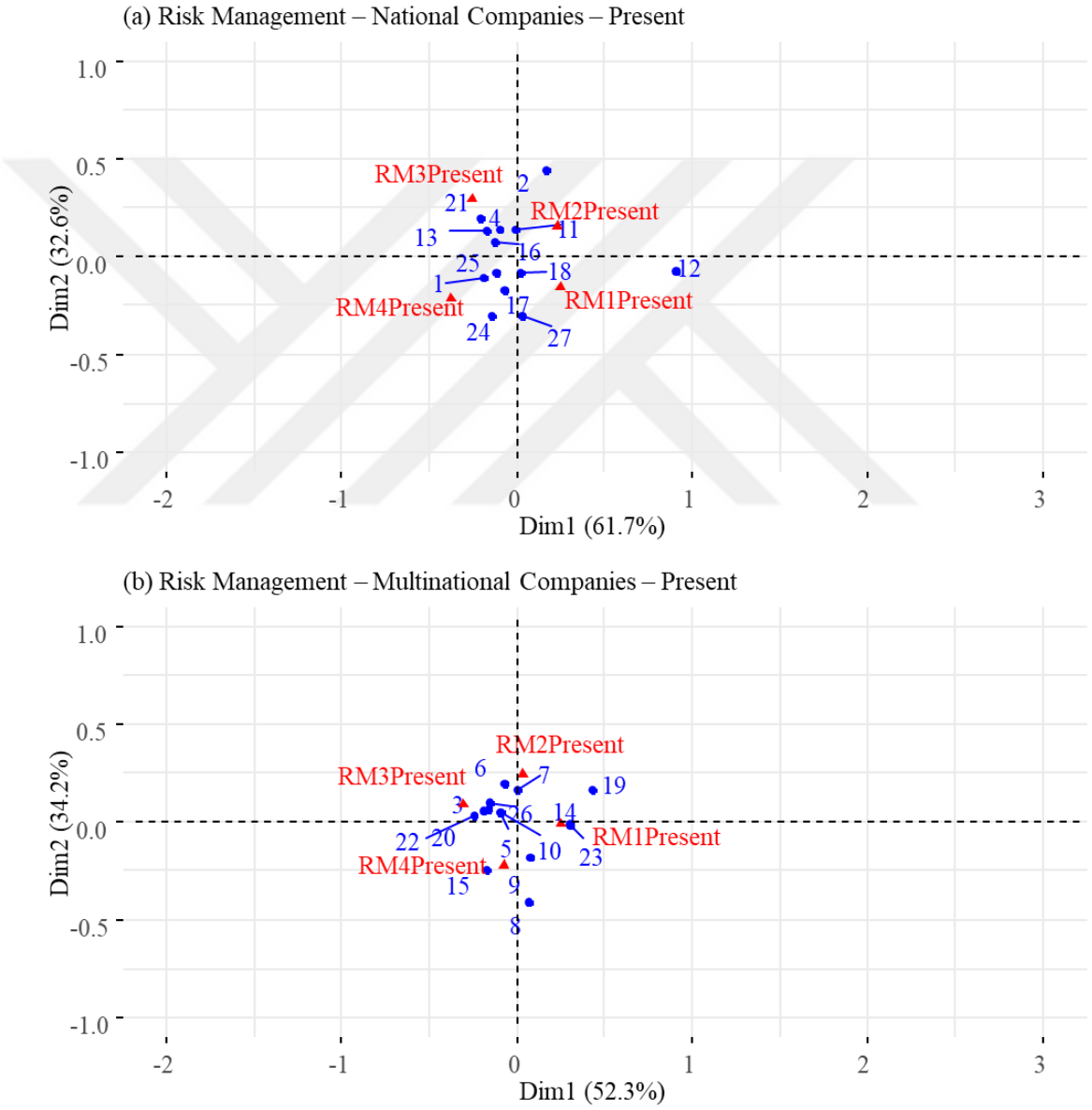


Biplot (a) of national companies presents that Dimension 1 has 44.5 %, Dimension 2 has 41.1 % explanatory power. According to projections of the profiles on Dimension 1 RM1; according to projections of the profiles on Dimension 2, RM4 are situated as differentiated.

Biplot (b) of multinational companies demonstrate that Dimension 1 has 70.2 %, Dimension 2 has 17.9 % explanatory power. Profile projections on Dimension 1 indicate that RM1 is differentiated as it was in the biplot of national companies.

Figure 87 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the current situation (present).

Figure 87: National vs. Multinational Companies – Present



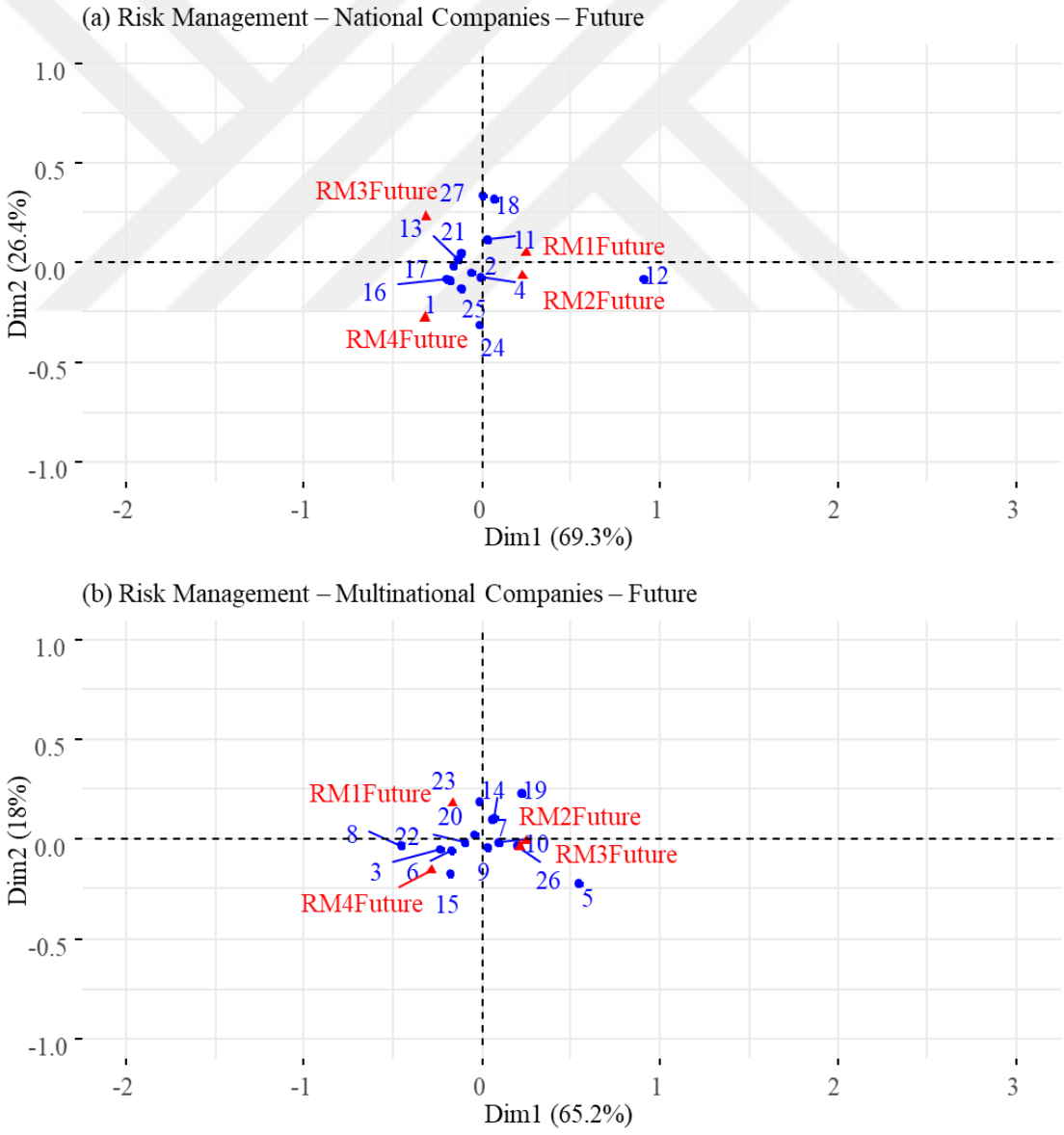
Biplot (a) of national presents that Dimension 1 has 61.7 %, Dimension 2 has 32.6 % explanatory power. Compared to the past, it is seen that all sub-items come closer to the origin and they are positioned with similar intervals. It means that the

scores are getting closer to average. Therefore, it can be interpreted that they have a holistic view on the composition of regulations for present.

Biplot (b) of multinational companies demonstrate that Dimension 1 has 52.3 %, Dimension 2 has 34.2 % explanatory power. Profile projections are positioned around the origin with similar and close distances. No items can be interpreted as differentiated according to this display.

Figure 88 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the future expectations and foresights.

Figure 88: National vs. Multinational Companies – Future



Biplot (a) of national presents that Dimension 1 has 69.3 %, Dimension 2 has 26.4 % explanatory power. In terms of projections of profiles on Dimension 1, RM3 and RM4 are close to each other and RM1 and RM2 are very close as well. It seems that respondents judge the risk management components as a composition of two groups for the future.

Biplot (b) of multinational companies demonstrate that Dimension 1 has 65.2 %, Dimension 2 has 18 % explanatory power. Profile projections on Dimension 1 indicate that respondents judge RM2 and RM3 similarly. It is seen that there is a differentiation in some degree for RM4.

6.6.5. Assessments Related to Business Volume

In this section, the extent to which companies' judgements on risk management varies in regard to annual business volume.

Figure 89 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the past experiences.

Biplot (a) of Figure 89 has 91.7 % explanatory power in general; Dimension 1 has 70.1 %, Dimension 2 has 21.6 % explanatory power. Projections of the profiles on Dimension 1 reveal that RM1 is positioned a little bit far away from the other sub-items. In terms of companies, company number 18 situated away from other companies. This can be interpreted as that RM1 is dominated by company number 18. Respondents' judgements for RM3 and RM4 are similar and converge on Dimension 1.

Assessments of the companies with at least 1 billion TL. business volume as presented by biplot (b) indicate that Dimension 1 explains the 53.8 % of the model whereas Dimension 2 has 32.9 % explanatory power. Projections of profiles on Dimension 1 reflect that RM1 differentiates among others.

Figure 89: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past

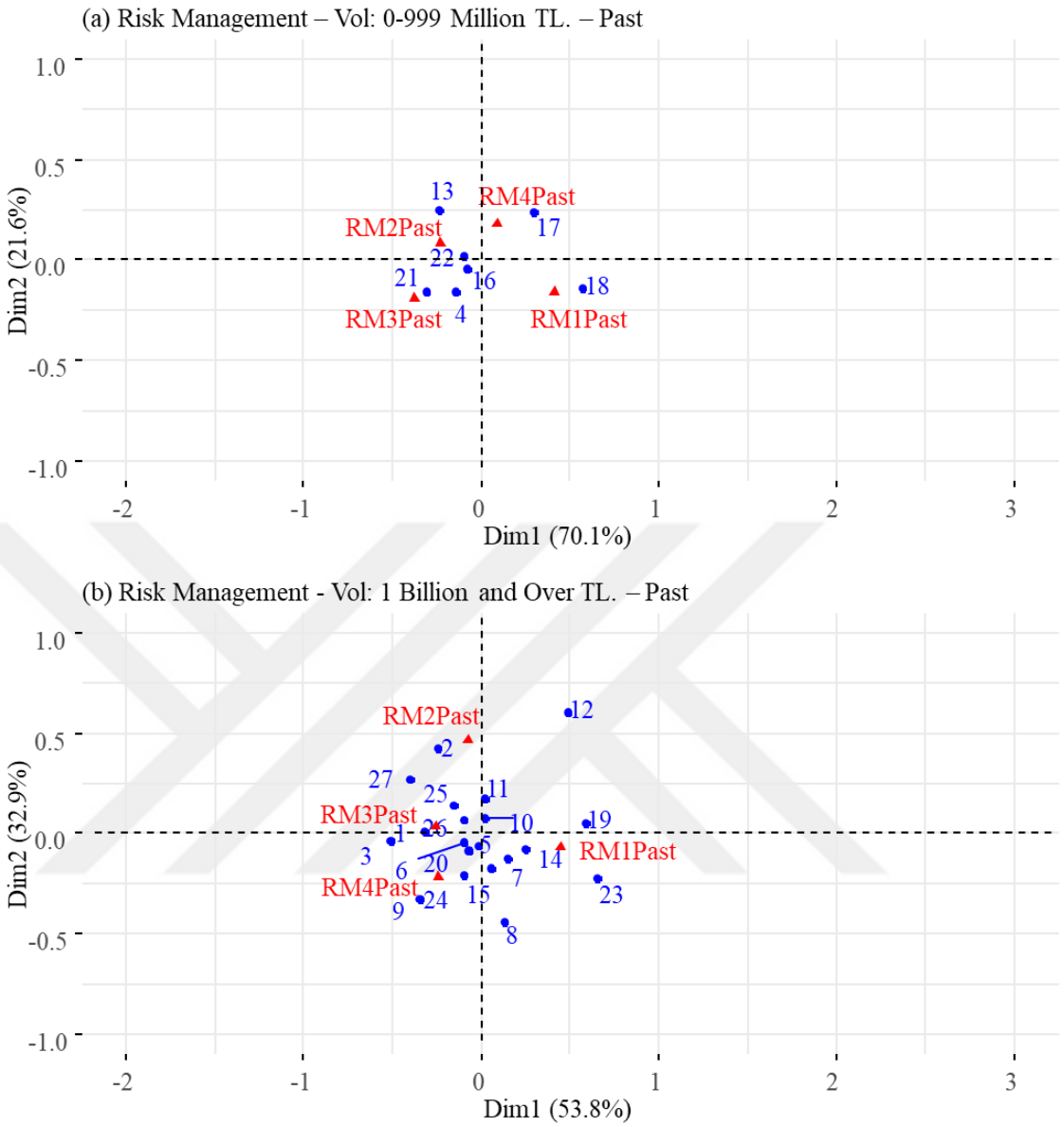


Figure 90 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the current situation (present).

Assessments of the companies with less than 1 billion TL. annual business volume as presented by biplot (a) seem to become more holistic. The biplot (a) of Figure 90 indicates that the profiles get closer to each other and to the origin. It is seen that all sub-items are positioned around the origin with similar intervals. It means that the scores are close to average. Therefore, it can be interpreted that they have a holistic view on the composition of regulations.

Assessments of the companies with at least 1 billion TL. business volume as presented by biplot (b) indicate that Dimension 1 explains the 62.2 % of the model whereas Dimension 2 has 30.9 % explanatory power. Projections of profiles on Dimension 2 reflect that RM3 differentiates among others.

Figure 90: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present

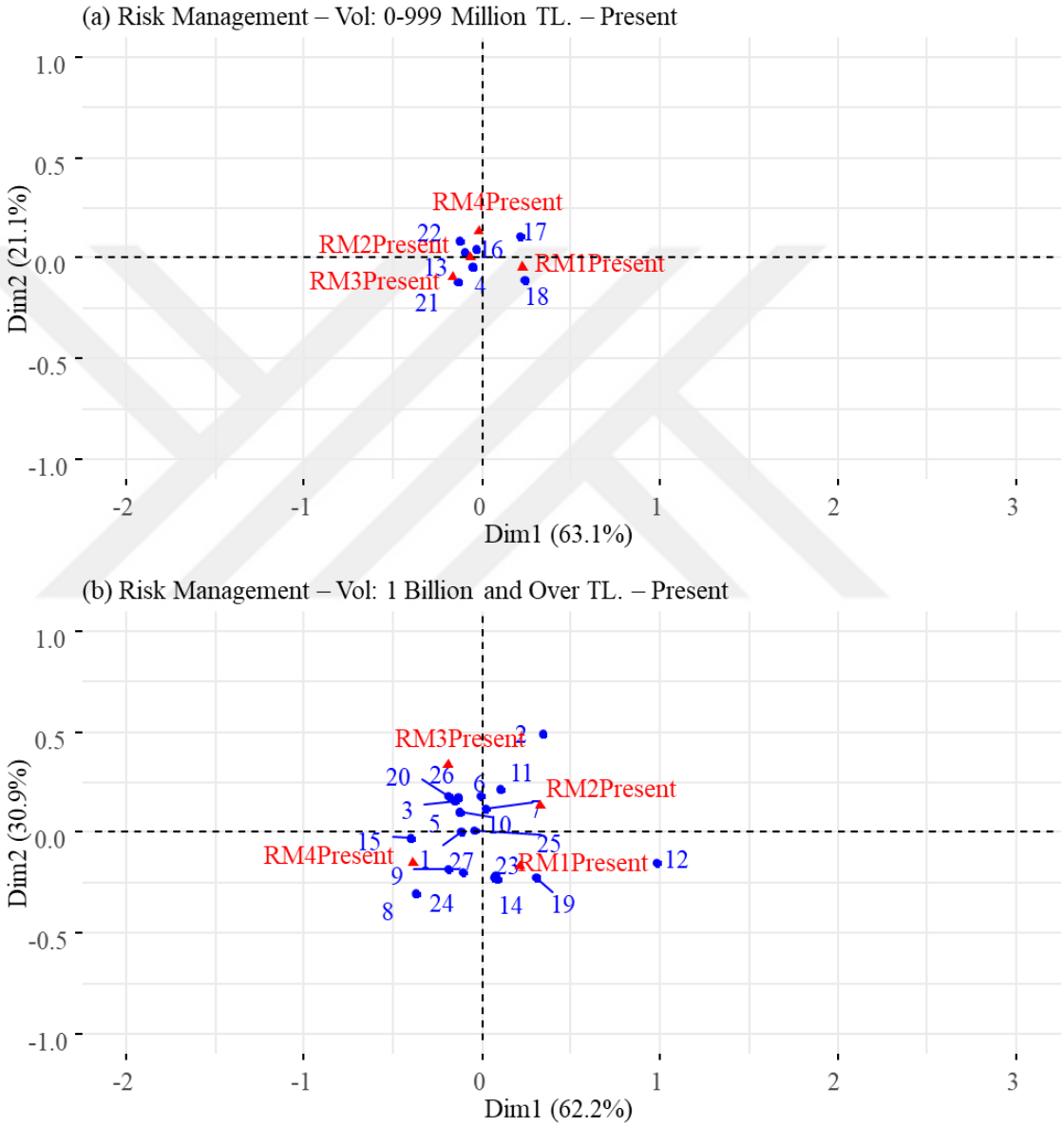
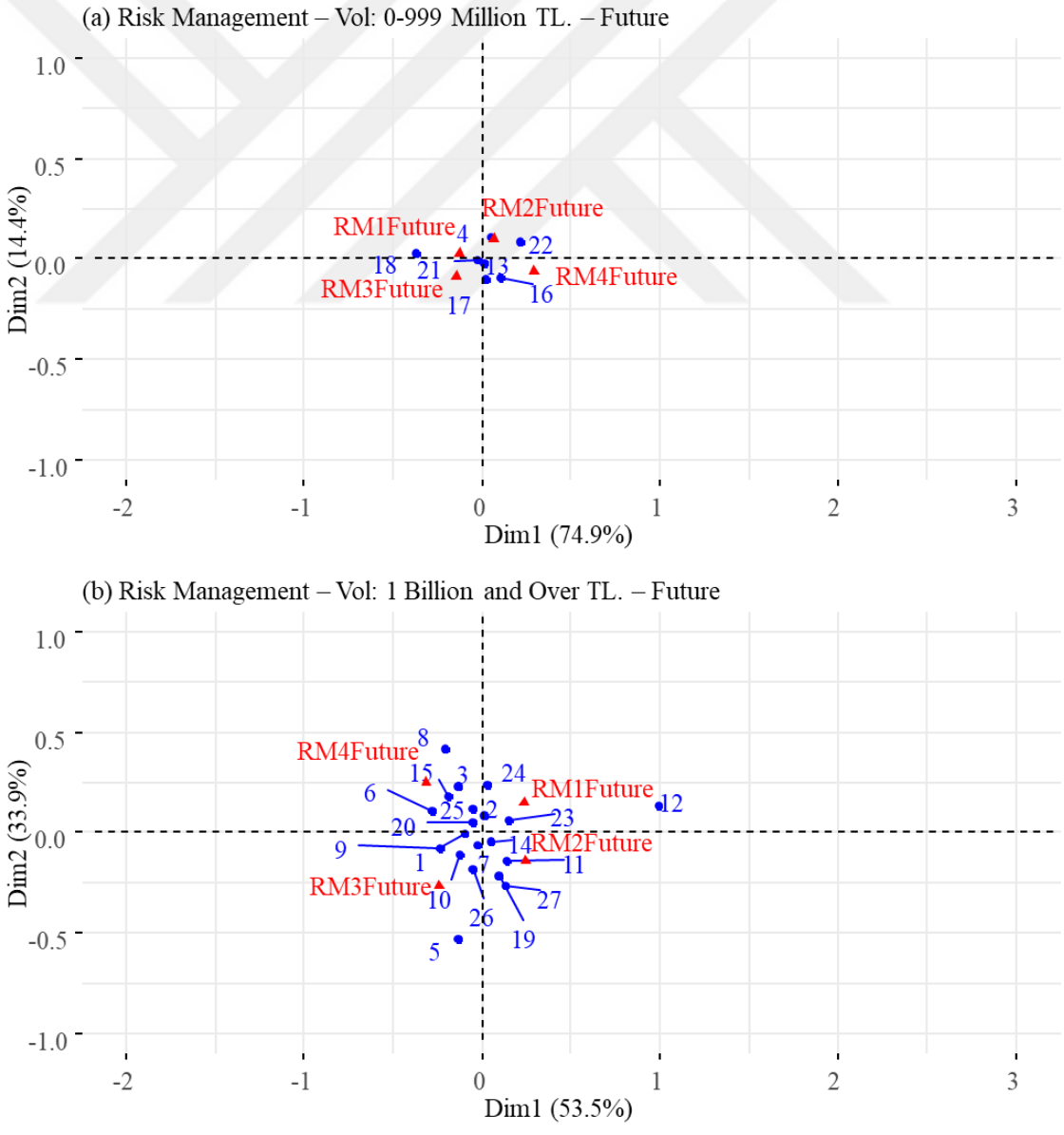


Figure 91 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the future expectations and foresights.

Assessments of the companies with less than 1 billion TL. annual business volume as presented by biplot (a) for the future are almost the same with the assessments for present. It can be interpreted that they have a holistic view on the composition of regulations.

Assessments of the companies with at least 1 billion TL. business volume as presented by biplot (b) indicate that Dimension 1 explains the 53.5 % of the model whereas Dimension 2 has 39.9 % explanatory power. Projections of profiles on Dimension 1 indicate that respondents' judgements for RM1 and RM2 are similar and converge on Dimension 1. RM3 and RM4 are differentiated in some degree.

Figure 91: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future



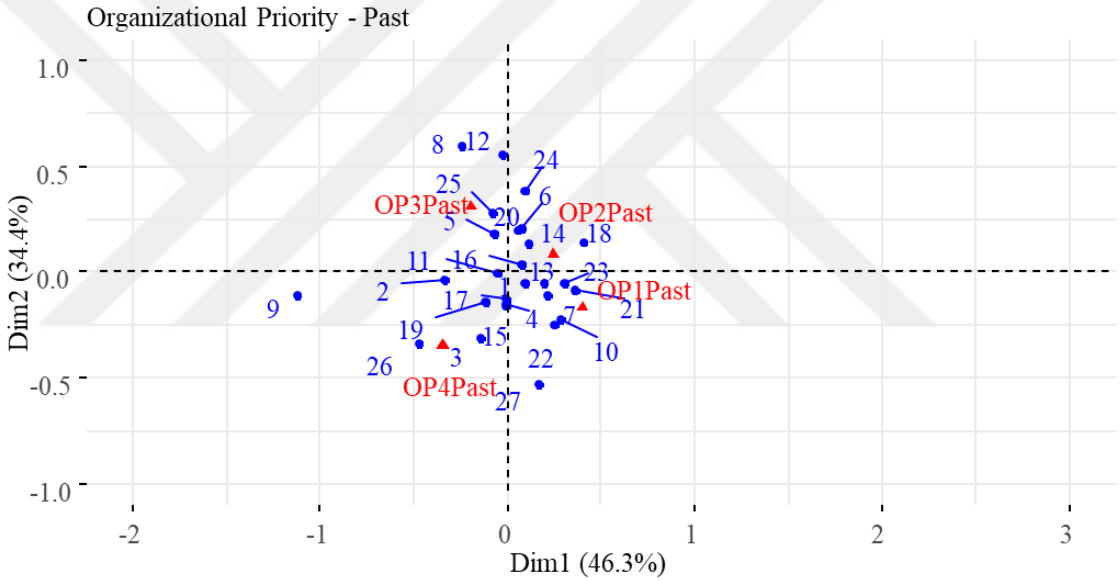
6.7. Findings for Organizational Priorities

Under this topic, judgements of companies regarding to the components related with organizational priorities are discussed.

6.7.1. General Characteristics of Past - Present – Future Assessments

In this section, OP1 symbolizes overall corporate strategy, OP2 symbolizes being in CEO's agendas, OP3 symbolizes leadership's personal interest, and OP4 symbolizes being in accordance with the advice of the consulting firms.

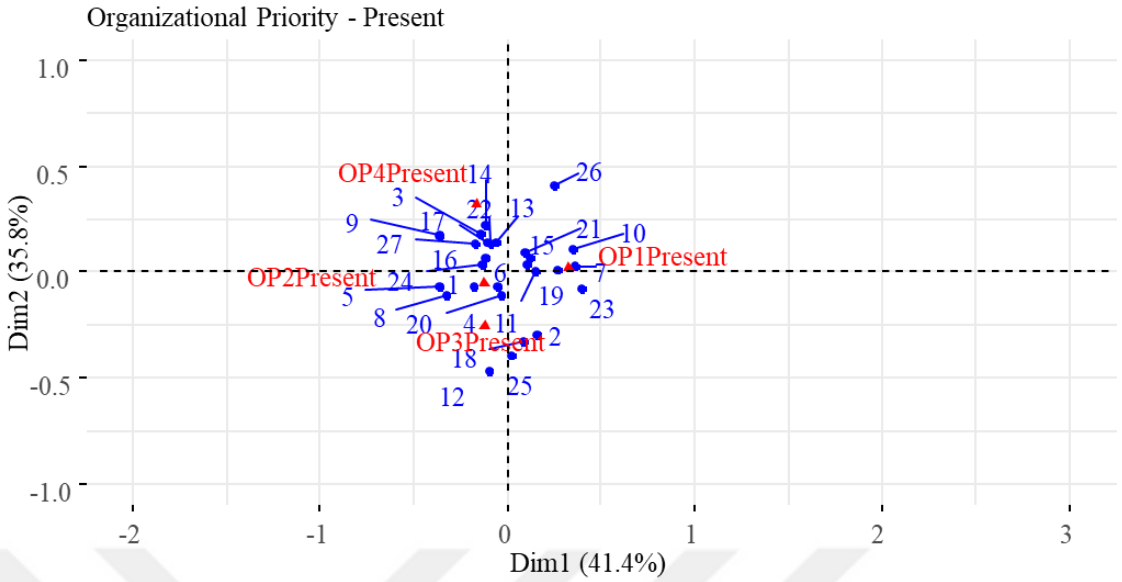
Figure 92: Organizational Priorities – Past



As demonstrated in Figure 92, Dimension 1 has 46.3 %, Dimension 2 has 34.4 % explanatory power. Total quality of display equals to 80.7 %. Projections of the profiles on Dimension 1 indicate that all sub-items are sequenced with close and similar intervals. On the other hand, projections of the profiles on Dimension 2 show that although OP2 and OP1 are situated closely, OP3 and OP4 positioned away. This can be interpreted as the dominance and differentiation of OP3 and OP4 is relatively higher than OP1 and OP2.

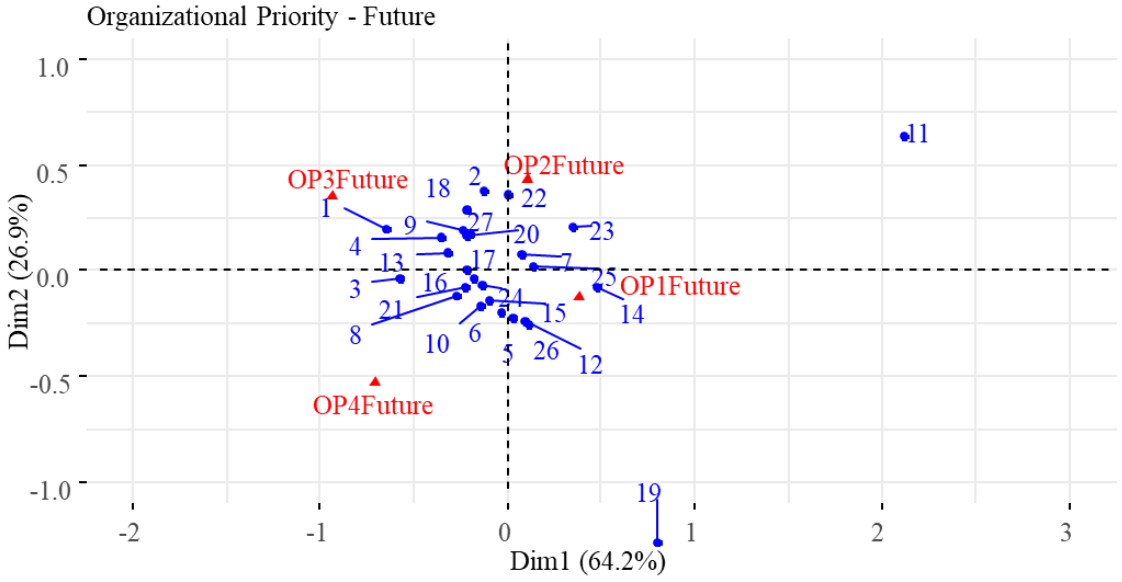
When the company details are checked, it is seen company number 9 situated away from the other companies. It seems to be outlier.

Figure 93: Organizational Priorities – Present



As demonstrated in Figure 93, Dimension 1 has 41.4 %, Dimension 2 has 35.8 % explanatory power. Projections of the profiles on Dimension 1 reveal that OP2, OP3 and OP4 are positioned close to each other whereas OP1 is differentiated. Therefore, the model is dominated by OP1.

Figure 94: Organizational Priorities – Future



As demonstrated in Figure 94, Dimension 1 has 64.2 %, Dimension 2 has 26.9 % explanatory power. Total explanatory power of the display equals to 91.1 %.

In terms of projections of profiles on Dimension 1, OP3 and OP4 are close to each other and OP1 and OP2 are close as well. It seems that respondents judge the

several organizational priorities as a composition of two groups. Respondents' judgements for OP2 seem to be the closest sub-item to average.

In terms of projections of profiles on Dimension 2, OP4 is differentiated from the other sub-items.

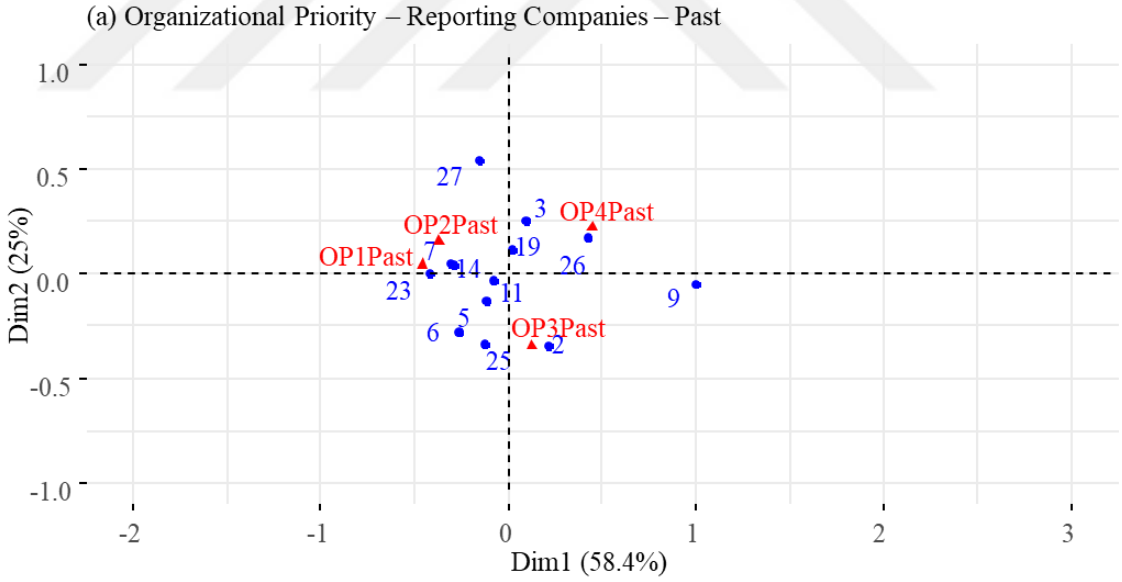
Finally, company number 11, and number 19 are the outliers.

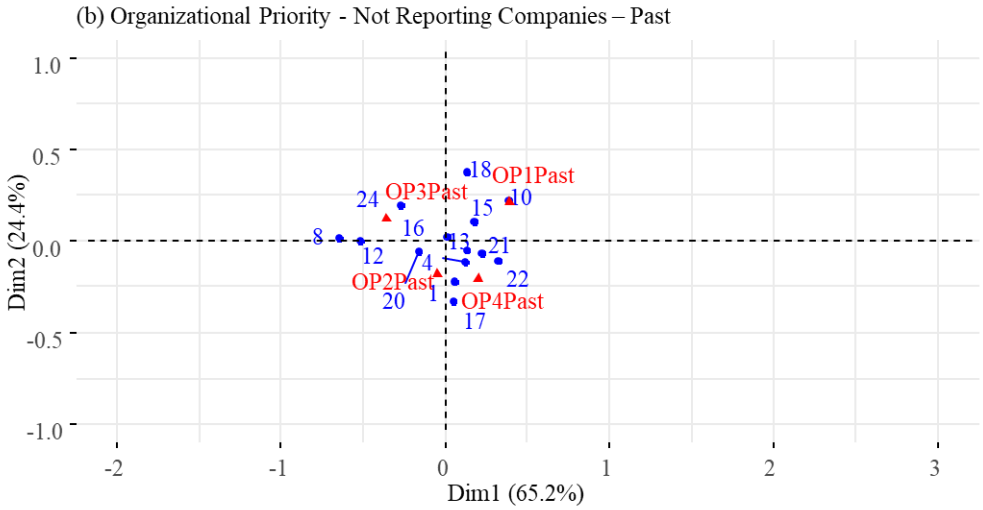
6.7.1. Assessments of Reporting vs. Not Reporting Companies

In this section, the extent to which companies' judgements on organizational priorities varies in regard to sustainability reporting status or not.

Figure 95 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the past experiences.

Figure 95: Reporting vs. Not Reporting Companies – Past





As it is seen on biplot (a) of Figure 95, Dimension 1 explains the 58.4% of the model whereas Dimension 2 has 25 % explanatory power. Projections of profiles on Dimension 1 reflect that OP1, OP2 and OP3 are positioned close to each other, while OP4 is situated away and differentiates. Projections of profiles on Dimension 2 reveal that OP3 is differentiated.

As for the biplot (b) of Figure 95, in terms of not reporting companies, sub-items are situated with similar and close intervals on dimensions. None of the sub-items are differentiated meaning that respondents distribute the 100 points to four sub-items with little differences.

Figure 96 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the current situation (present).

As it is seen on biplot (a) of Figure 96, Dimension 1 explains the 48.3 % of the model whereas Dimension 2 has 30.4 % explanatory power. Projections of profiles on Dimension 1 reflect that OP2 and OP3 are positioned close to each other and to the origin, while OP4 is situated away and differentiates.

As for the biplot (b) of Figure 96, in terms of not reporting companies, Dimension 1 explains the 52.8 % of the model whereas Dimension 2 has 37.1 % explanatory power. Projections of profiles on Dimension 1 reflect that sub-items are situated with similar and close intervals on dimensions. None of the sub-items are differentiated. Projections of profiles on Dimension 2 reveal that OP1 has a differentiation in some degree.

Figure 96: Reporting vs. Not Reporting Companies - Present

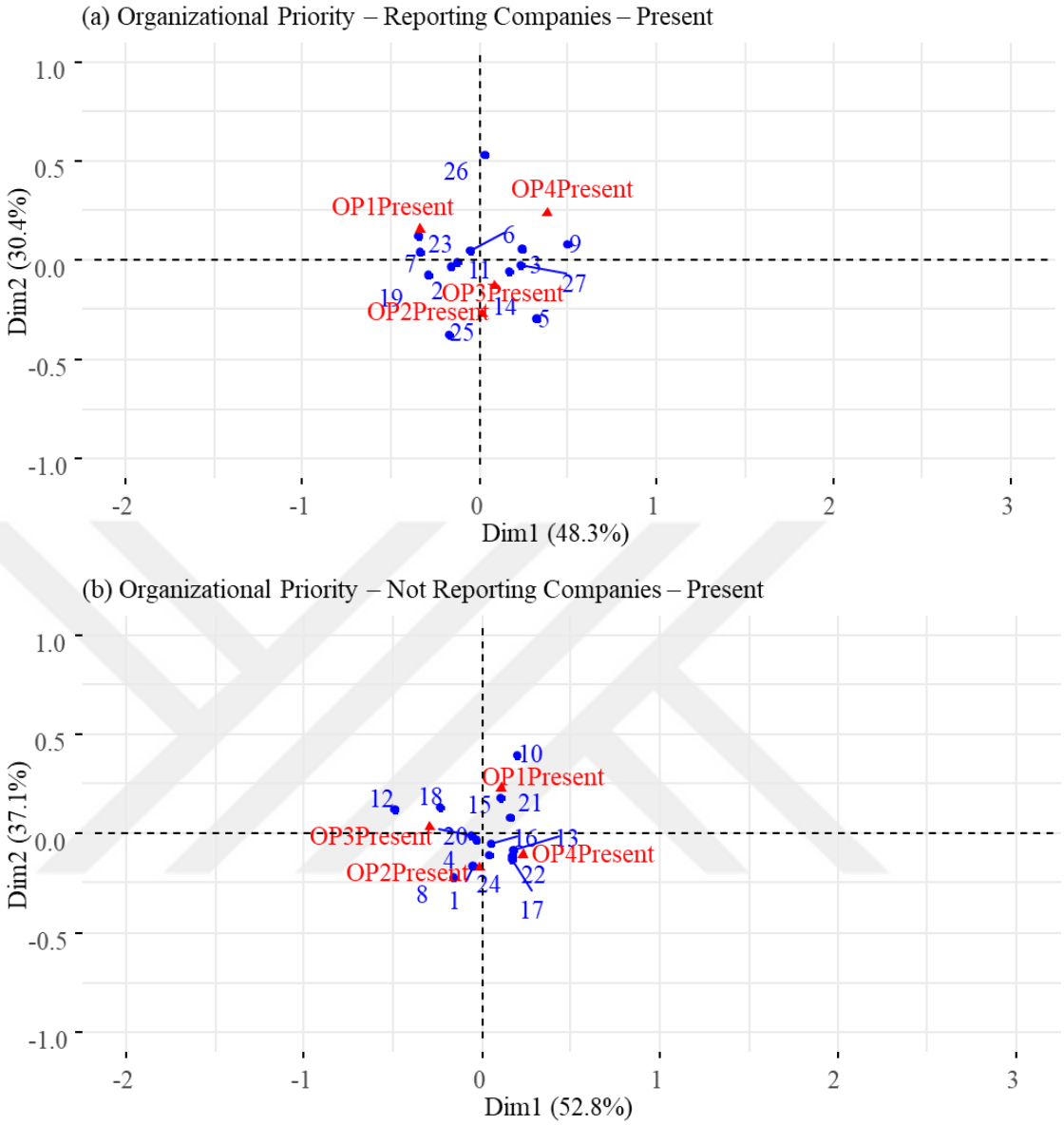


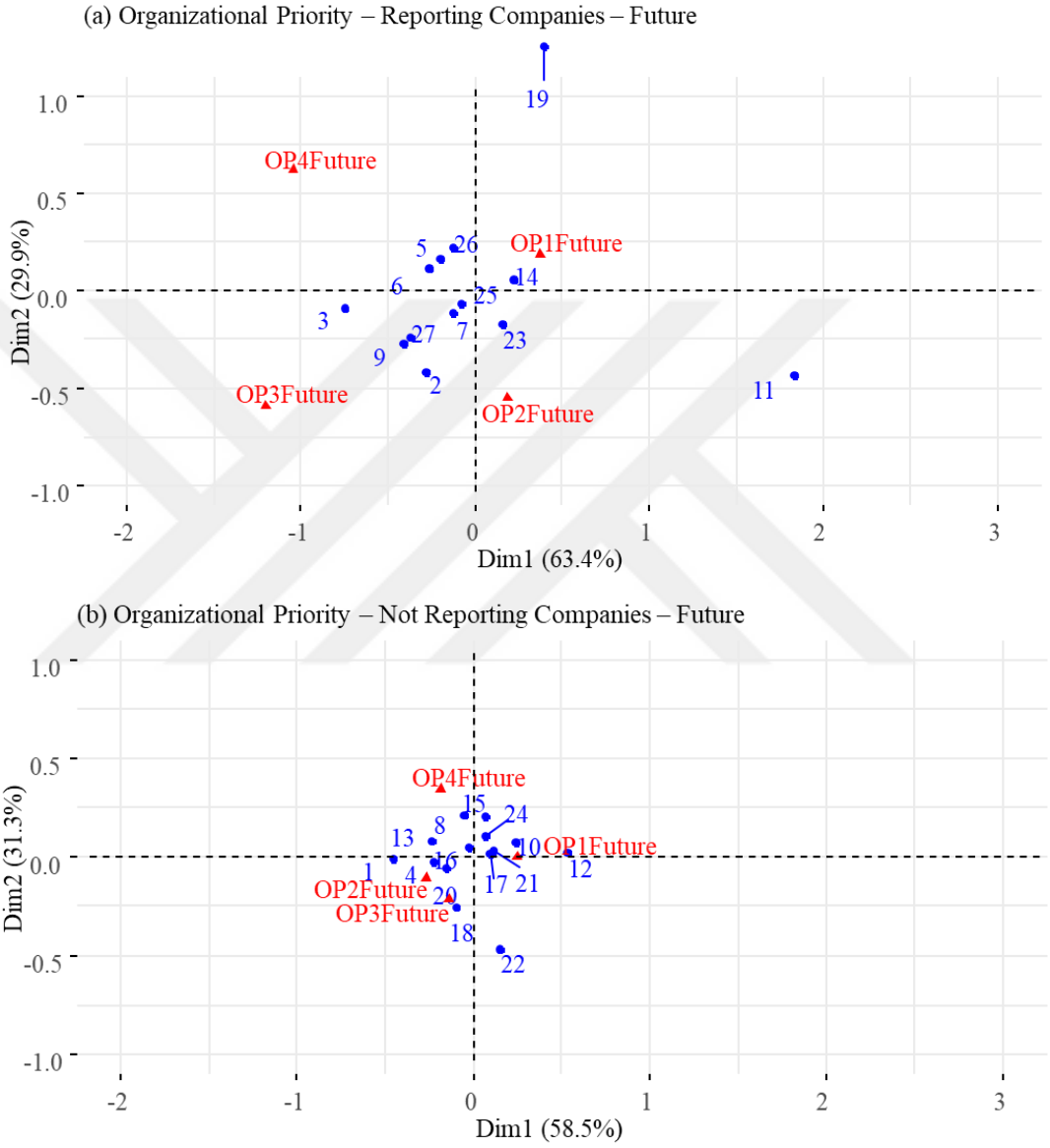
Figure 97 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the future expectations and foresights.

As it is seen on biplot (a) of Figure 97, Dimension 1 explains the 63.4 % of the model whereas Dimension 2 has 29.9% explanatory power. Projections of profiles on Dimension 1 reflect that OP1 and OP2 are positioned close to each other and to the origin, while OP 3 and OP4 are situated away and differentiated. Projections of profiles on Dimension 2 reveal that OP4 is dominated.

As for the biplot (b) of Figure 97, in terms of not reporting companies, Dimension 1 explains the 58.5 % of the model whereas Dimension 2 has 31.3 %

explanatory power. Projections of profiles on Dimension 1 reflect that OP2, OP3 and OP4 are positioned close to each other whereas OP1 is differentiated. Projections of profiles on Dimension 2 reveal that OP4 has a differentiation.

Figure 97: Reporting vs. Not Reporting Companies – Future

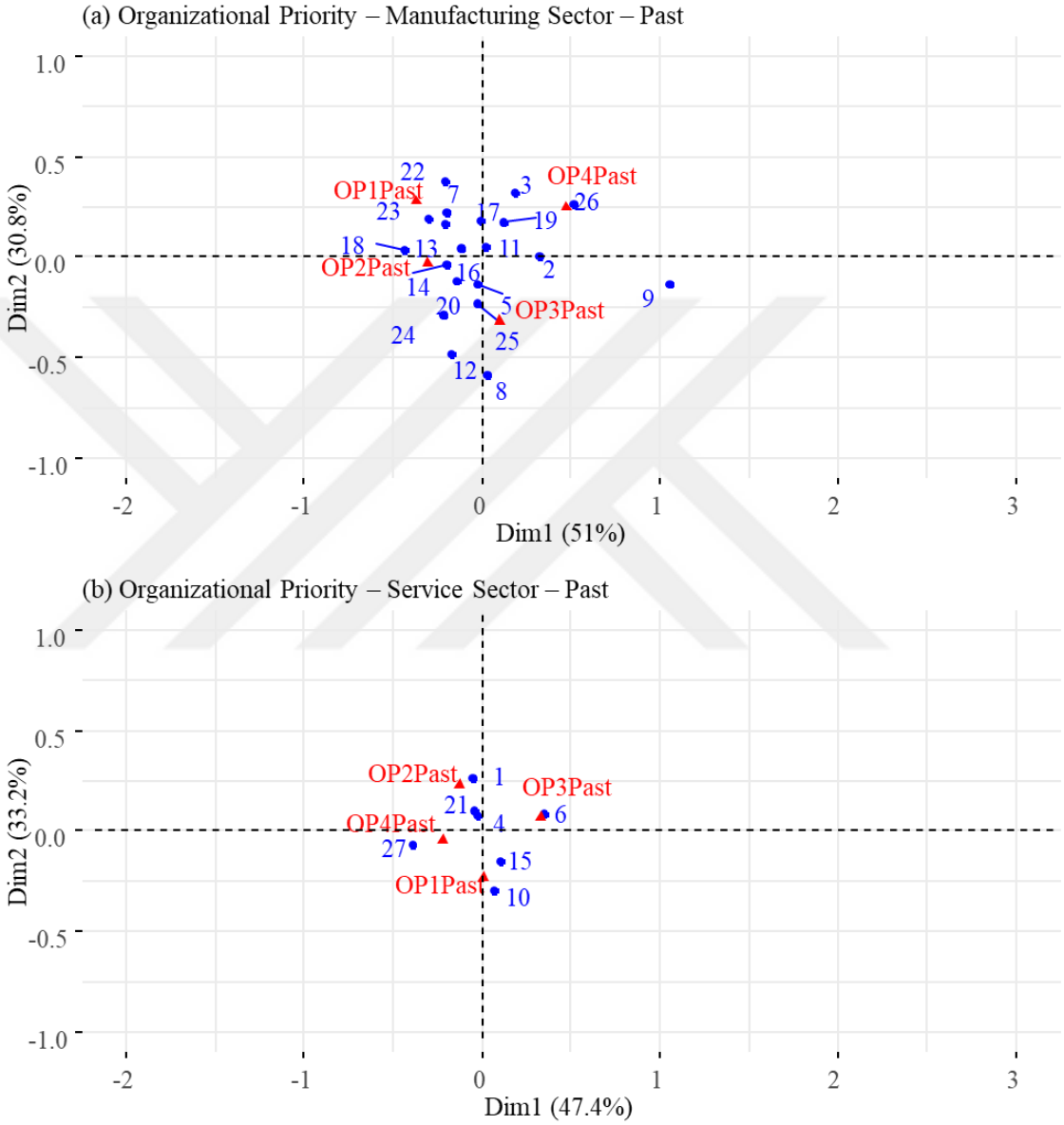


6.7.2. Assessments of Manufacturing vs. Service Sector

In this section, the extent to which companies' judgements on organizational priorities varies in regard to being from manufacturing or service sector.

Figure 98 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the past experiences.

Figure 98: Manufacturing vs. Service Sector - Past

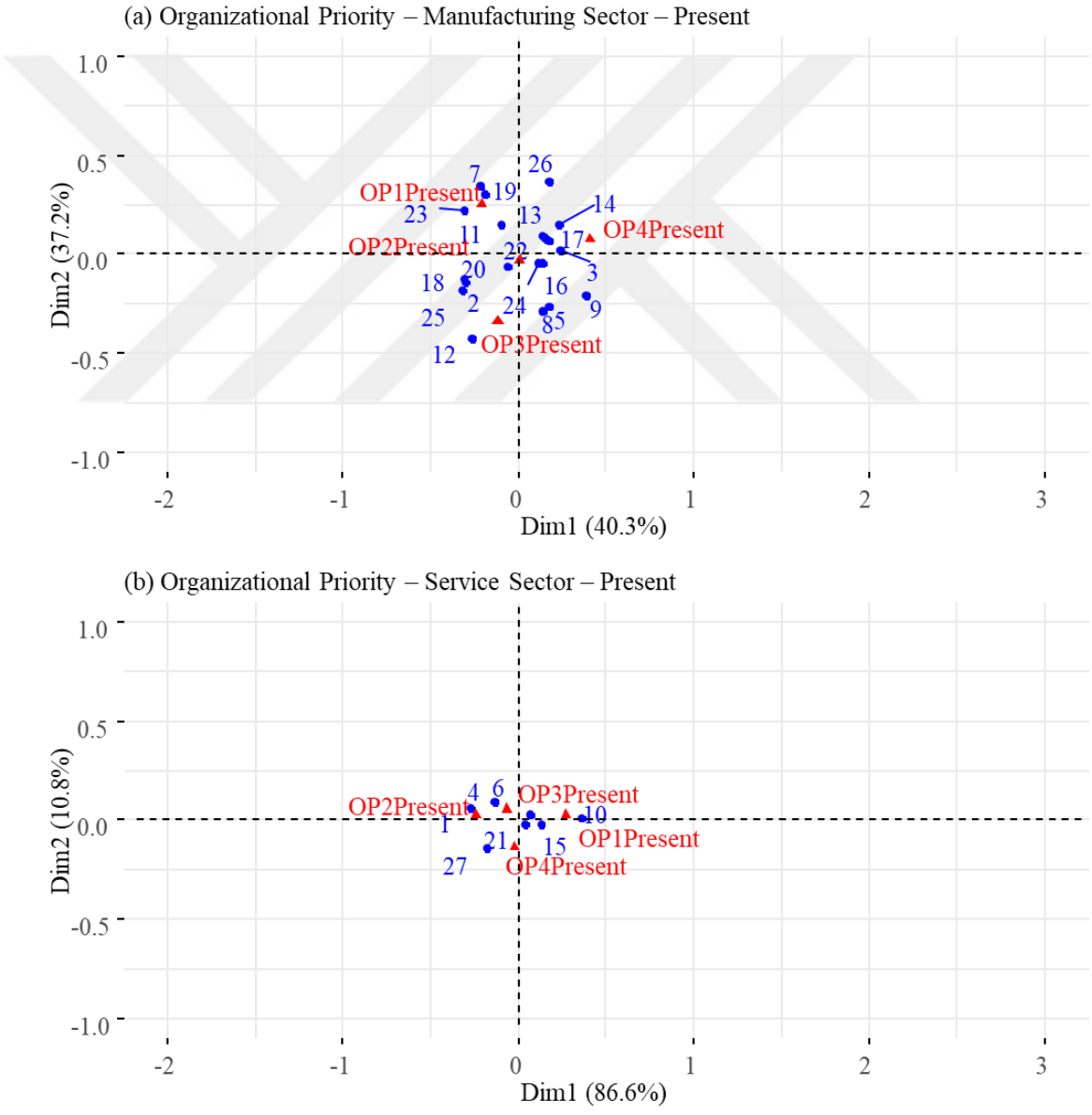


Biplot (a) of manufacturing sector shows that Dimension 1 has 51 %, Dimension 2 has 30.8 % explanatory power. Profile projections on Dimension 1 indicate that OP1, OP2 and OP3 are positioned closely. However, OP4 is situated away from these and it can be interpreted as OP4 dominates the display. Profile projections on Dimension 2 indicate that, OP3 is judged as differentiated.

Biplot (b) of service sector indicates that Dimension 1 has 47.4 %, Dimension 2 has 33.2 % explanatory power. Projections of profiles on Dimension 1 reflect that OP3 is differentiated. Projections of profiles on Dimension 2 reveal that OP1 is dominated.

Figure 99 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the current situation (present).

Figure 99: Manufacturing vs. Service Sector - Present



Biplot (a) of Figure 99 shows that Dimension 1 has 40.3 %, Dimension 2 has 37.2 % explanatory power. Therefore, two dimensions have similar explanatory

power. Profile projections on Dimension 1 and Dimension 2 confirm that OP4 is differentiated. By the way, OP2 states at origin and represents the average value.

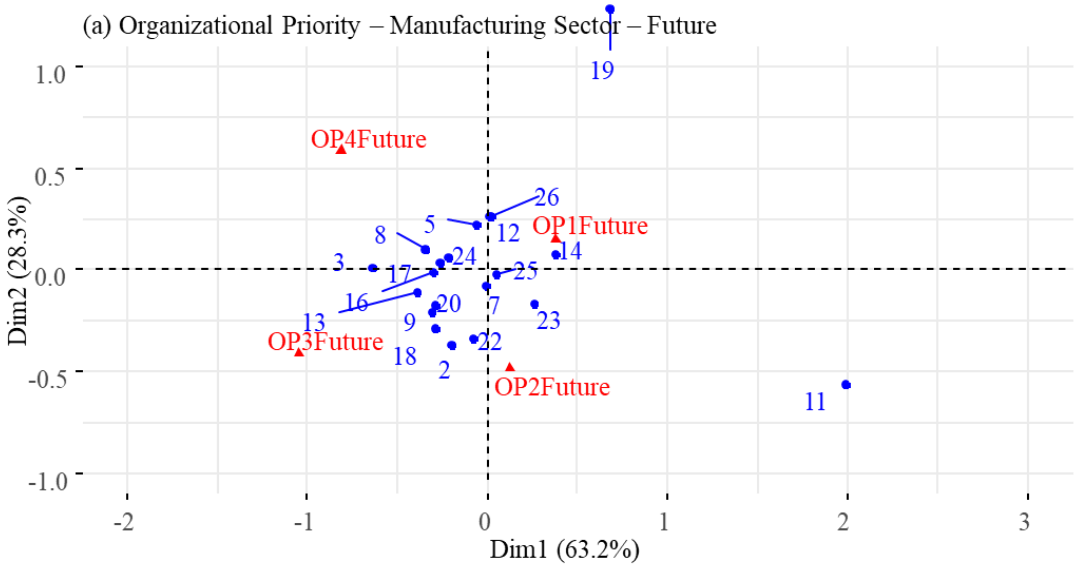
Biplot (b) of Figure 99 indicates that Dimension 1 has 86.6 %, Dimension 2 has 10.8 % explanatory power. Projections of profiles on Dimension 1 reflect that OP1 is differentiated in some degree.

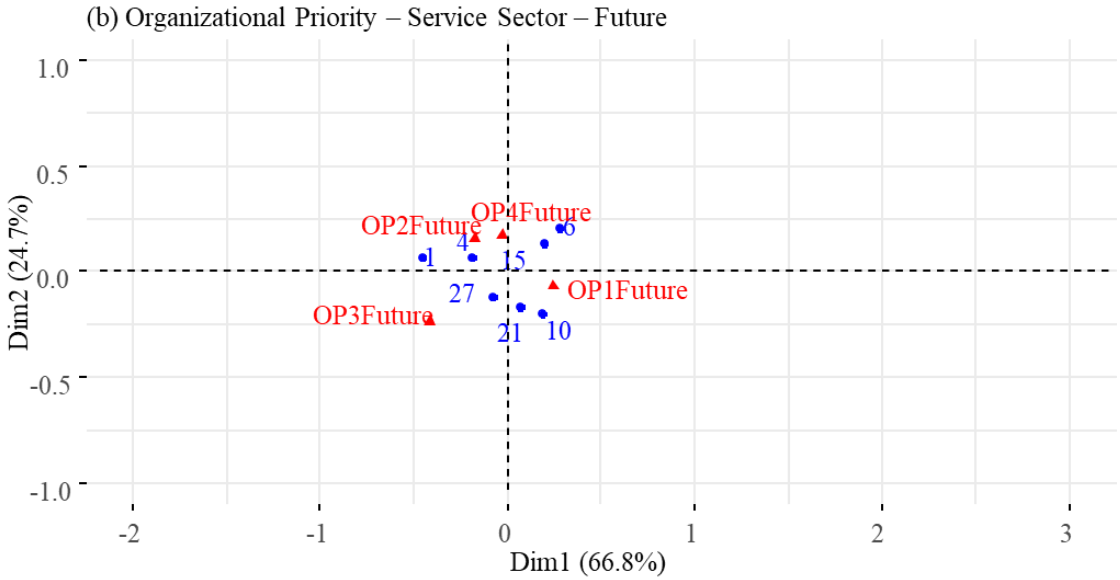
Figure 100 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the future expectations and foresights.

Biplot (a) of manufacturing sector shows that Dimension 1 has 63.2 %, Dimension 2 has 28.3 % explanatory power. Profile projections on Dimension 1 indicate that OP1 and OP2 positioned closely while OP3 and OP4 are situated close to each other but away from OP1 and OP2. However, profile projections on Dimension 2 indicate that, OP4 is judged as differentiated.

Biplot (b) of service sector indicates that Dimension 1 has 66.8 %, Dimension 2 has 24.7 % explanatory power. Projections of profiles on Dimension 1 and Dimension 2 reflect that OP3 is differentiated.

Figure 100: Manufacturing vs. Service Sector – Future



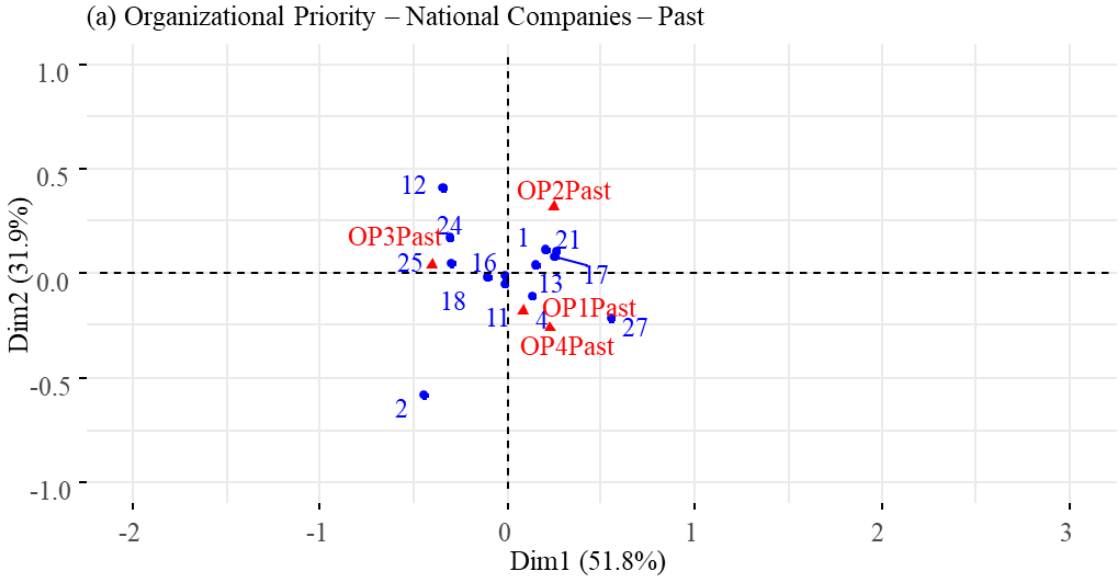


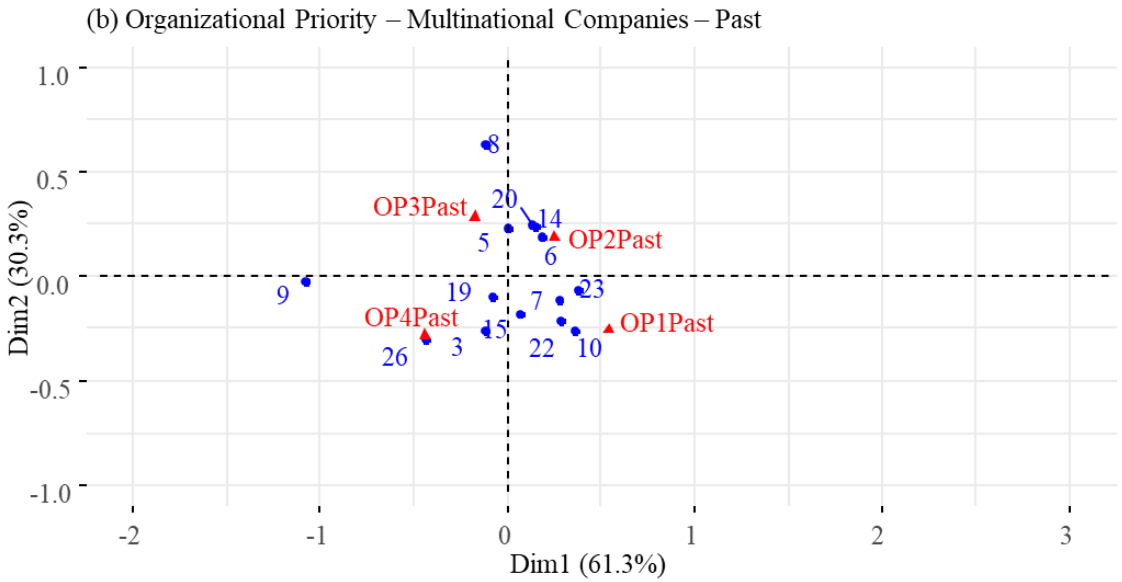
6.7.3. Assessments of National vs. Multinational Companies

In this section, the extent to which companies' judgements on organizational priorities varies in regard to being national or multinational.

Figure 101 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the past experiences.

Figure 101: National vs. Multinational Companies – Past





Biplot (a) of Figure 101 presents that Dimension 1 has 51.8 %, Dimension 2 has 31.9 % explanatory power. According to projections of the profiles on Dimension 1 OP3 is situated as differentiated. Company number 2 is the outlier.

Biplot (b) of Figure 101demonstrate that Dimension 1 has 61.3 %, Dimension 2 has 30.3 % explanatory power. Profile projections on Dimension 1 indicate that OP1 is differentiated in some degree.

Further, Figure 102 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the current situation (present).

Biplot (a) of Figure 102 presents that Dimension 1 has 69.5 %, Dimension 2 has 15.7 % explanatory power. According to projections of the profiles on Dimension 1 and Dimension 2, sub-items are situated with similar and close the origin. Only OP4 has differentiation in some degree.

Biplot (b) of Figure 102 demonstrate that Dimension 1 has 58.8 %, Dimension 2 has 30.2 % explanatory power. Profile projections on Dimension 1 indicate that OP1 is differentiated as it was in the biplot of the multinational companies past assessments.

Figure 102: National vs. Multinational Companies – Present

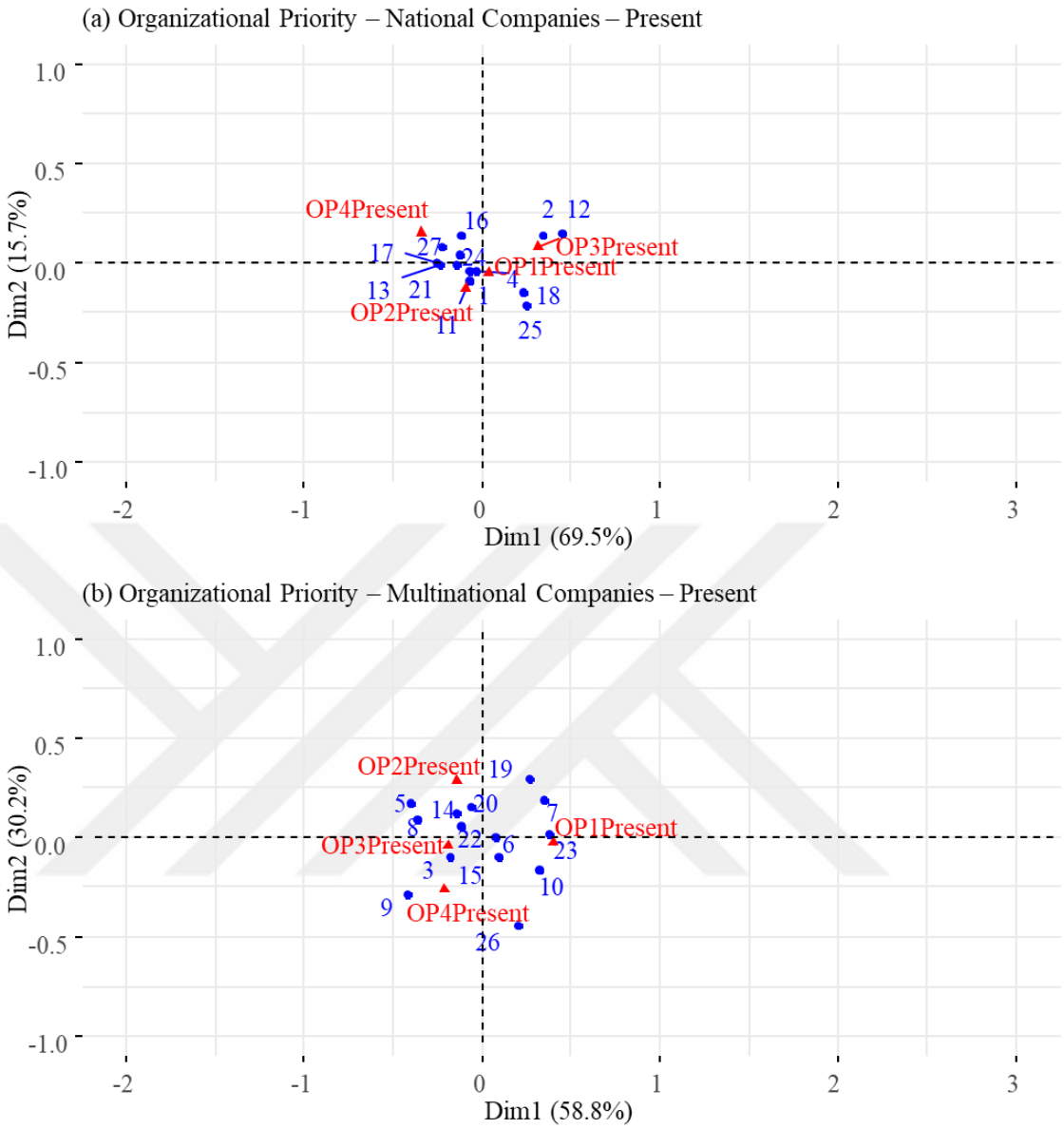


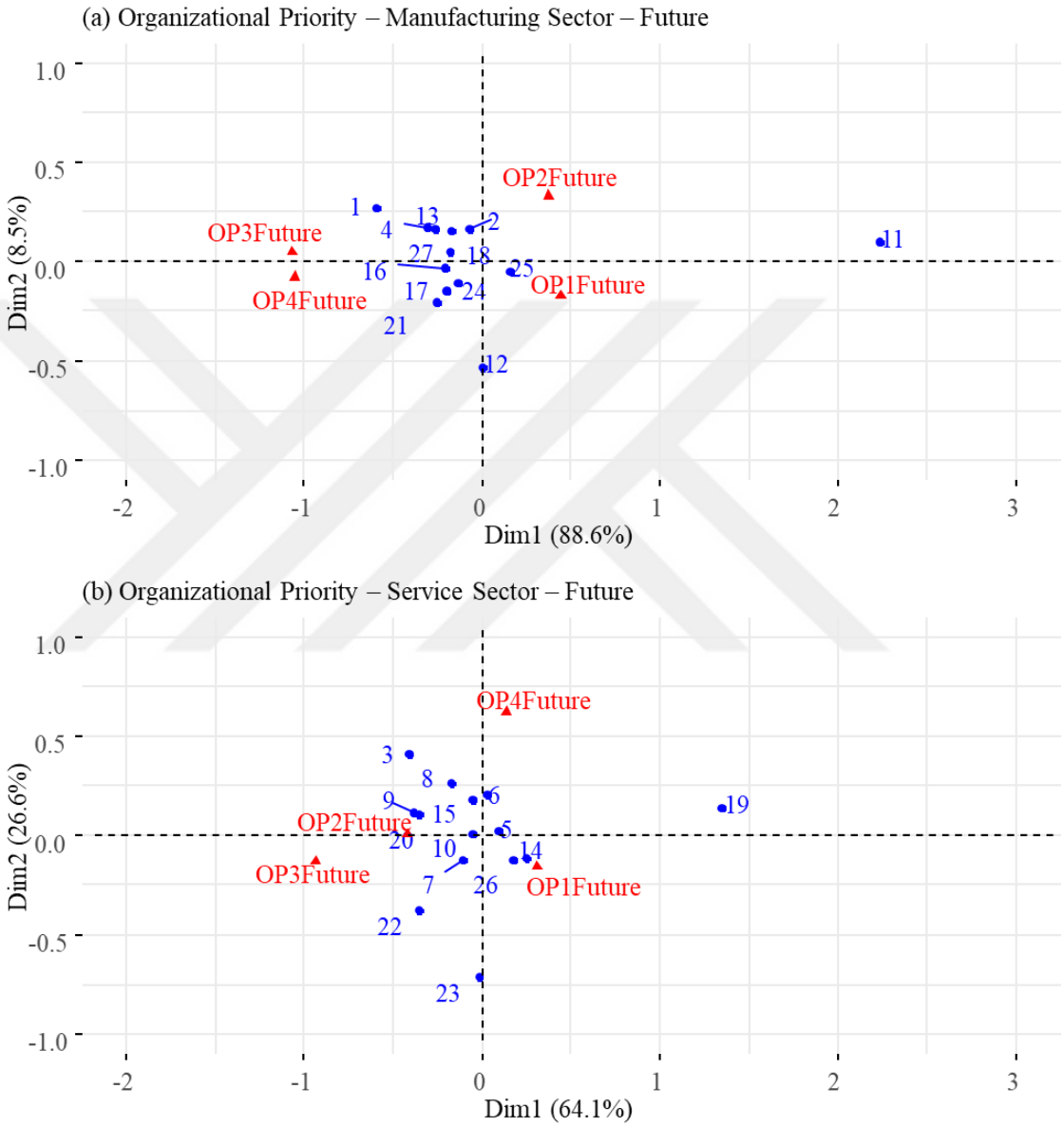
Figure 103 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the future expectations and foresights.

Biplot (a) of Figure 103 presents that Dimension 1 has 88.6 %, Dimension 2 has 8.5 % explanatory power. In terms of projections of profiles on Dimension 1, OP3 and OP4 are close to each other and OP1 and OP2 are very close as well. It seems that respondents judge the organizational priorities as a composition of two groups.

Biplot (b) of Figure 103 demonstrate that Dimension 1 has 64.1 %, Dimension 2 has 26.6 % explanatory power. Profile projections on Dimension 1

indicate that OP3 is differentiated in some degree. Profile projections on Dimension 2 show that OP4 is positioned away from the other sub-items that it dominates the model. In addition, company number 19 is the outlier.

Figure 103: National vs. Multinational Companies - Future

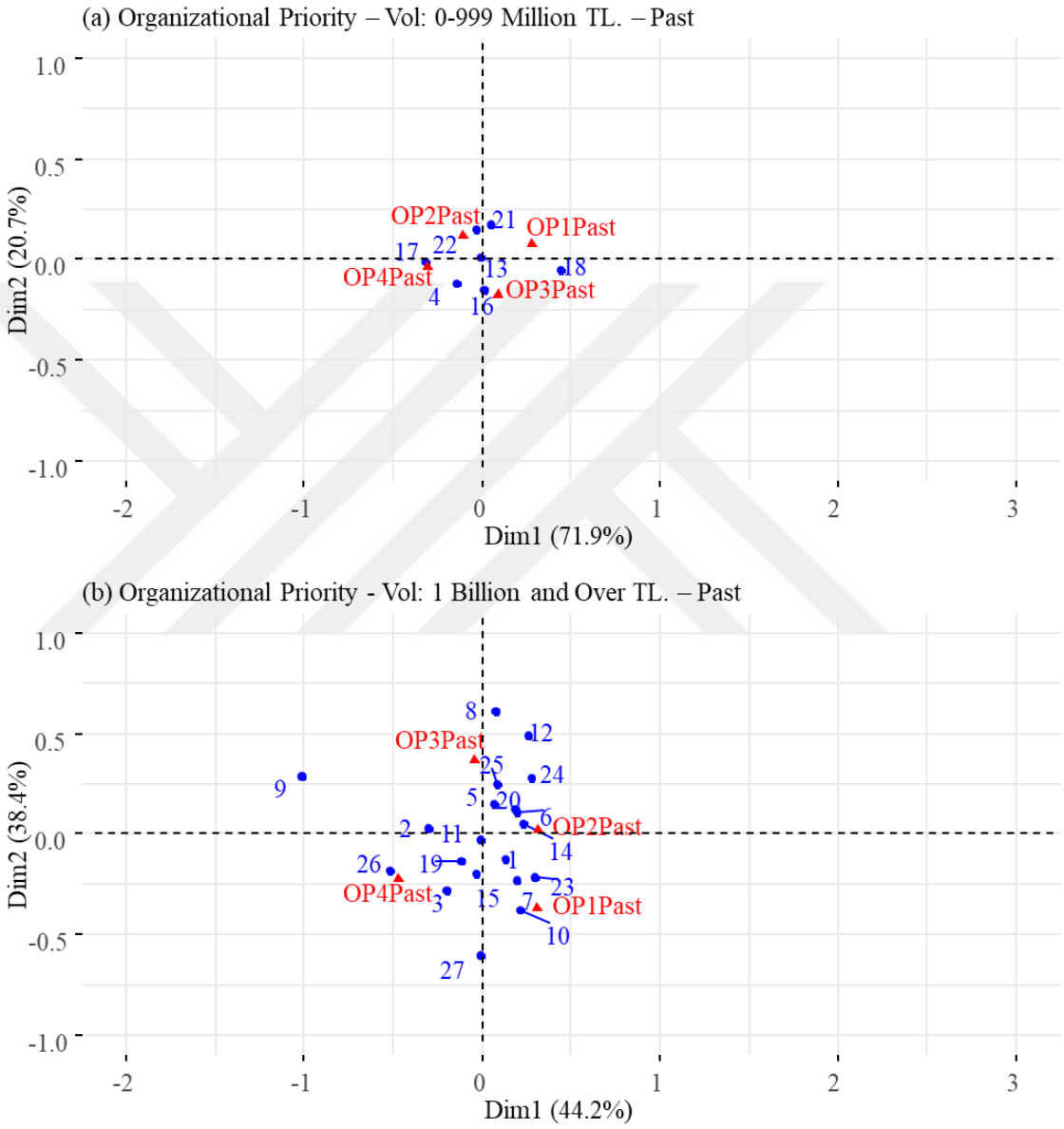


6.7.4. Assessments Related to Business Volume

In this section, the extent to which companies' judgements on organizational priorities varies in regard to annual business volume.

Figure 104 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the past experiences.

Figure 104: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past

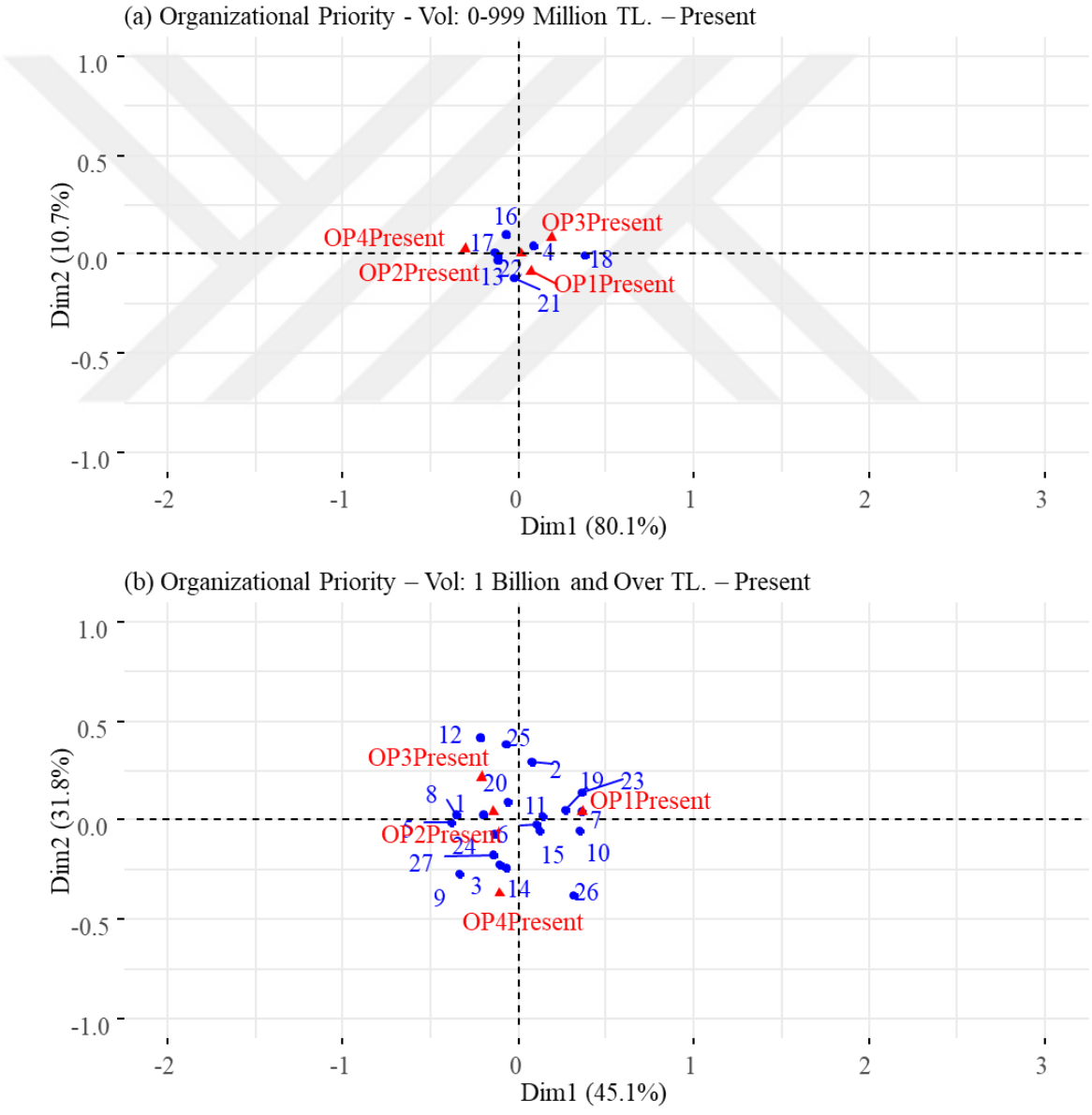


Biplot (a) of Figure 104 has 92.6 % explanatory power in general; Dimension 1 has 71.9 %, Dimension 2 has 20.7 % explanatory power. It is seen that all sub-items are positioned around the origin with similar intervals in term of projections of profiles on two dimensions. It means that the scores are close to average. Therefore, it can be interpreted that they have a holistic view on the composition of organizational priorities.

Biplot (b) of Figure 104 has 82.6 % explanatory power in general; Dimension 1 has 44.2 %, Dimension 2 has 38.4 % explanatory power. Projections of profiles on Dimension 1 do not reflect a differentiation, but on Dimension 2, OP3 is differentiated.

Figure 105 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the current situation (present).

Figure 105: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present



Assessments of the companies with less than 1 billion TL. annual business volume as presented by biplot (a) seem to become more holistic. The biplot (a)

indicates that the profiles are close to each other and to the origin. It is seen that all sub-items are positioned around the origin with similar intervals. It means that the scores are close to average. Therefore, it can be interpreted that they have a holistic view on the composition of organizational priorities with a 90.8 % explanatory power.

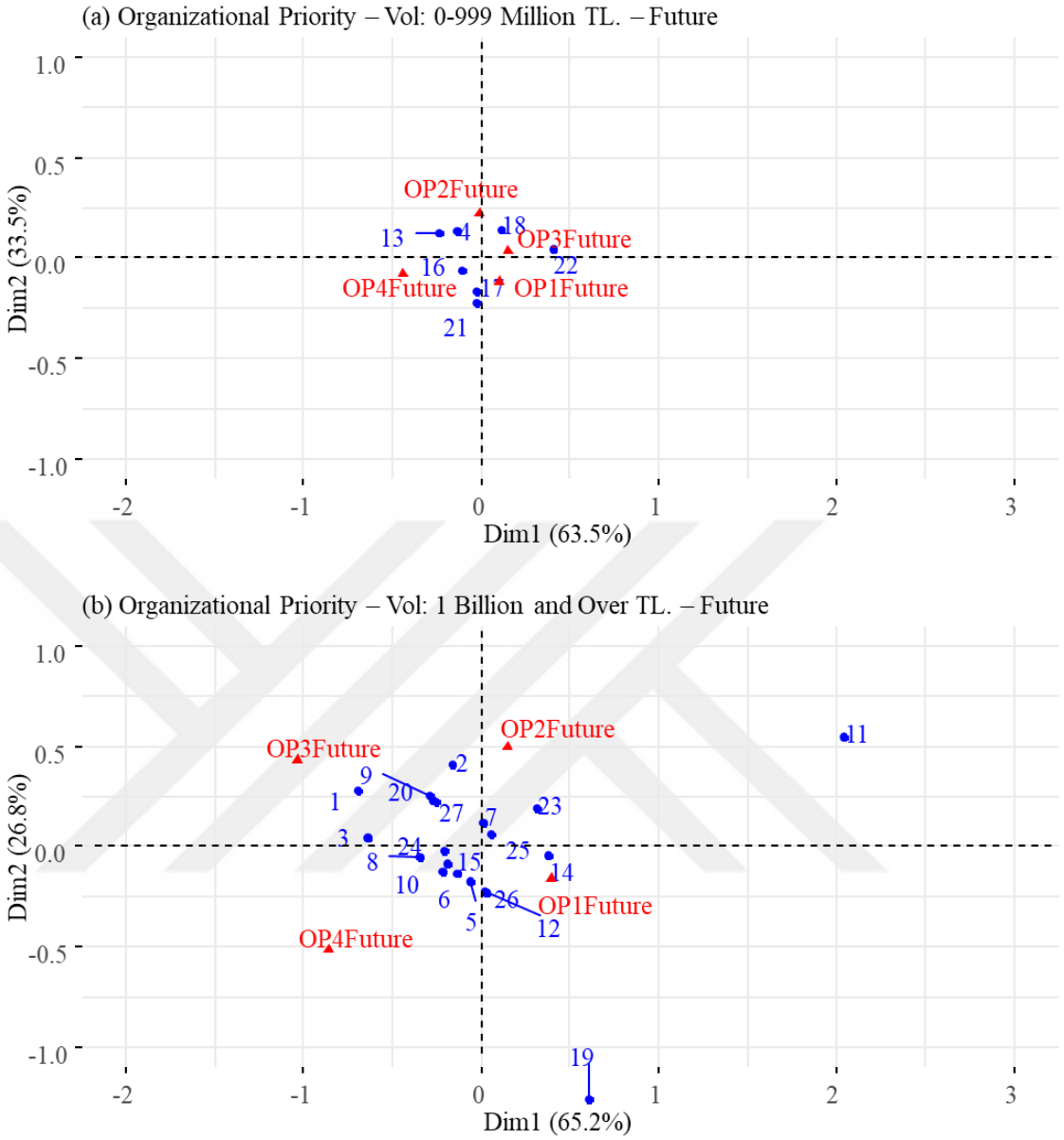
Assessments of the companies with at least 1 billion TL. business volume as presented by biplot (b) indicate that Dimension 1 explains the 45.1 % of the model whereas Dimension 2 has 31.8 % explanatory power. Projections of profiles on Dimension 1 reflect that OP1 differentiates among others. As for the projections of profiles on Dimension 2, OP4 is positioned away from the other sub-items.

Figure 106 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the future expectations and foresights.

Assessments of the companies with less than 1 billion TL. annual business volume as presented by biplot (a) indicate that Dimension 1 explains the 63.5 % of the model whereas Dimension 2 has 33.5 % explanatory power. Positioning of sub-items are holistic. Thus, biplot (a) of Figure 106 indicate that the profiles get closer to each other and to the origin. It means that the scores distributed by respondents are close to average.

Assessments of the companies with at least 1 billion TL. business volume as presented by biplot (b) of Figure 106 indicate that Dimension 1 explains the 65.2 % of the model whereas Dimension 2 has 26.8 % explanatory power. In terms of projections of profiles on Dimension 1, OP3 and OP4 are close to each other and OP1 and OP2 are very close as well. It seems that respondents judge the organizational priorities as a composition of two groups. Company number 11 and number 19 are the outliers.

Figure 106: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future



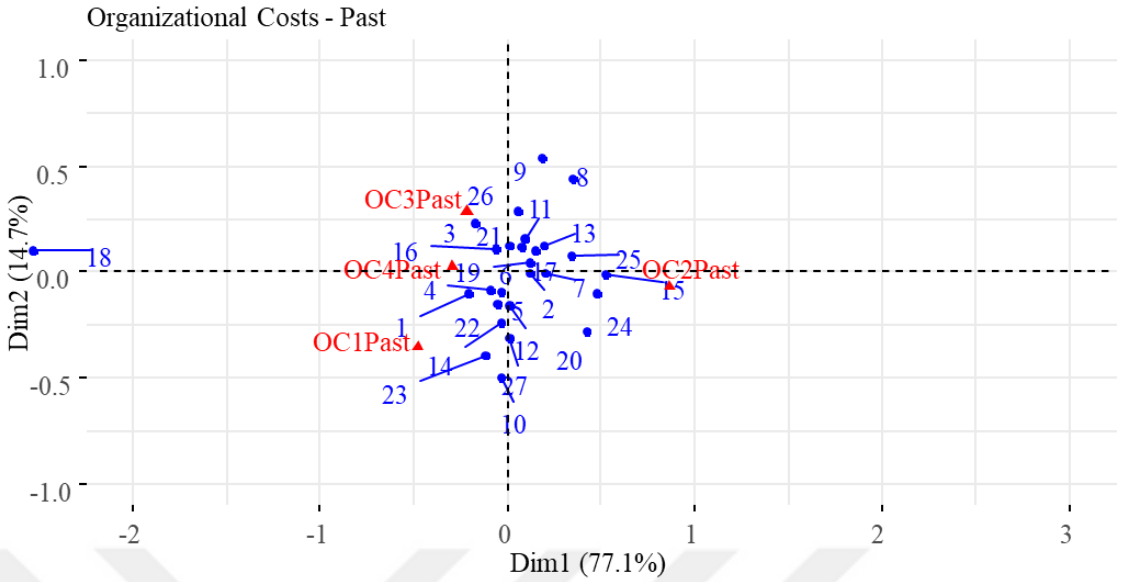
6.8. Findings for Organizational Costs

Under this topic, judgements of companies regarding to the components related with lowering organizational costs are discussed.

6.8.1. General Characteristics of Past - Present – Future Assessments

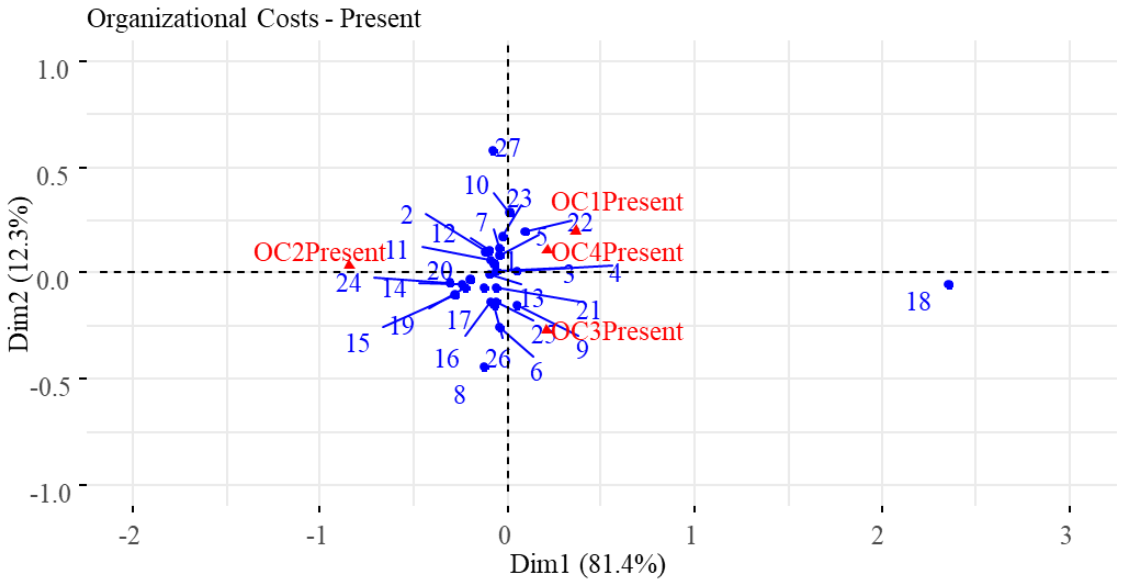
In this section, OC1 symbolizes increasing recycled resources, OC2 symbolizes increasing water conservation, OC3 symbolizes increasing energy saving and OC4 symbolizes improving waste management.

Figure 107: Organizational Costs – Past



As demonstrated in Figure 107, Dimension 1 has 77.1 %, Dimension 2 has 14.7 % explanatory power. Total quality of display equals to 91.8 %. Projections of the profiles on Dimension 1 indicate that OC1, OC3 and OC4 are positioned close to each other. On the other hand, OC2 is situated away from them. Consequently, the biplot reflects that OC2 dominates the model.

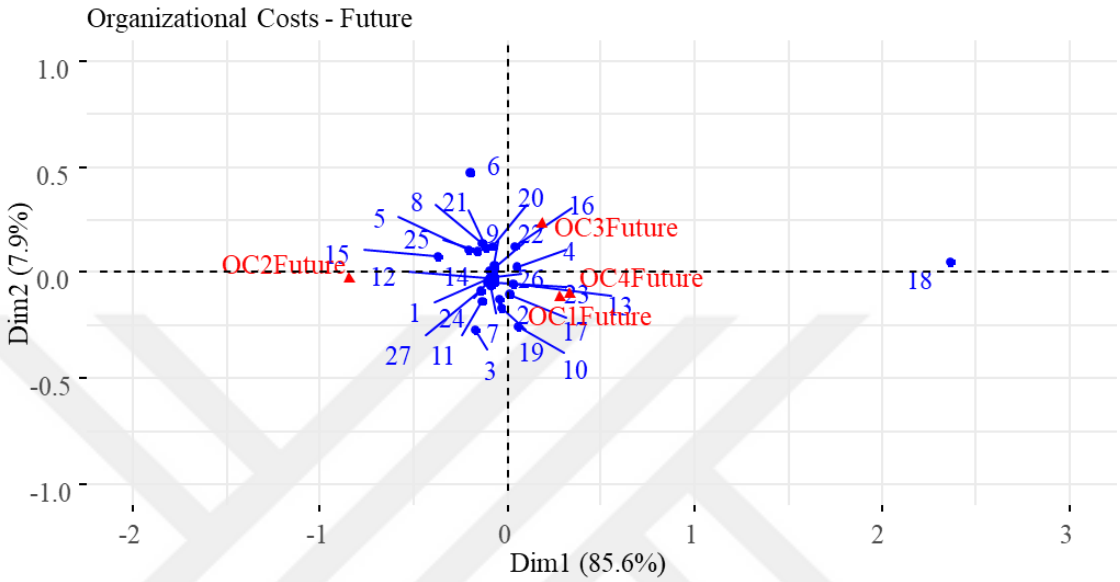
Figure 108: Organizational Costs – Present



As demonstrated in Figure 108, Dimension 1 has 81.4 %, Dimension 2 has 12.3 % explanatory power. Total quality of display equals to 93.7 %. Projections of the profiles on Dimension 1 indicate that OC1, OC3 and OC4 are positioned close to

each other. On the other hand, OC2 is situated away from them. Consequently, the biplot reflects that OC2 dominates the model. Assessments for present seem similar to the assessments for the past. In addition, company number 18 is the outlier.

Figure 109: Organizational Costs – Future



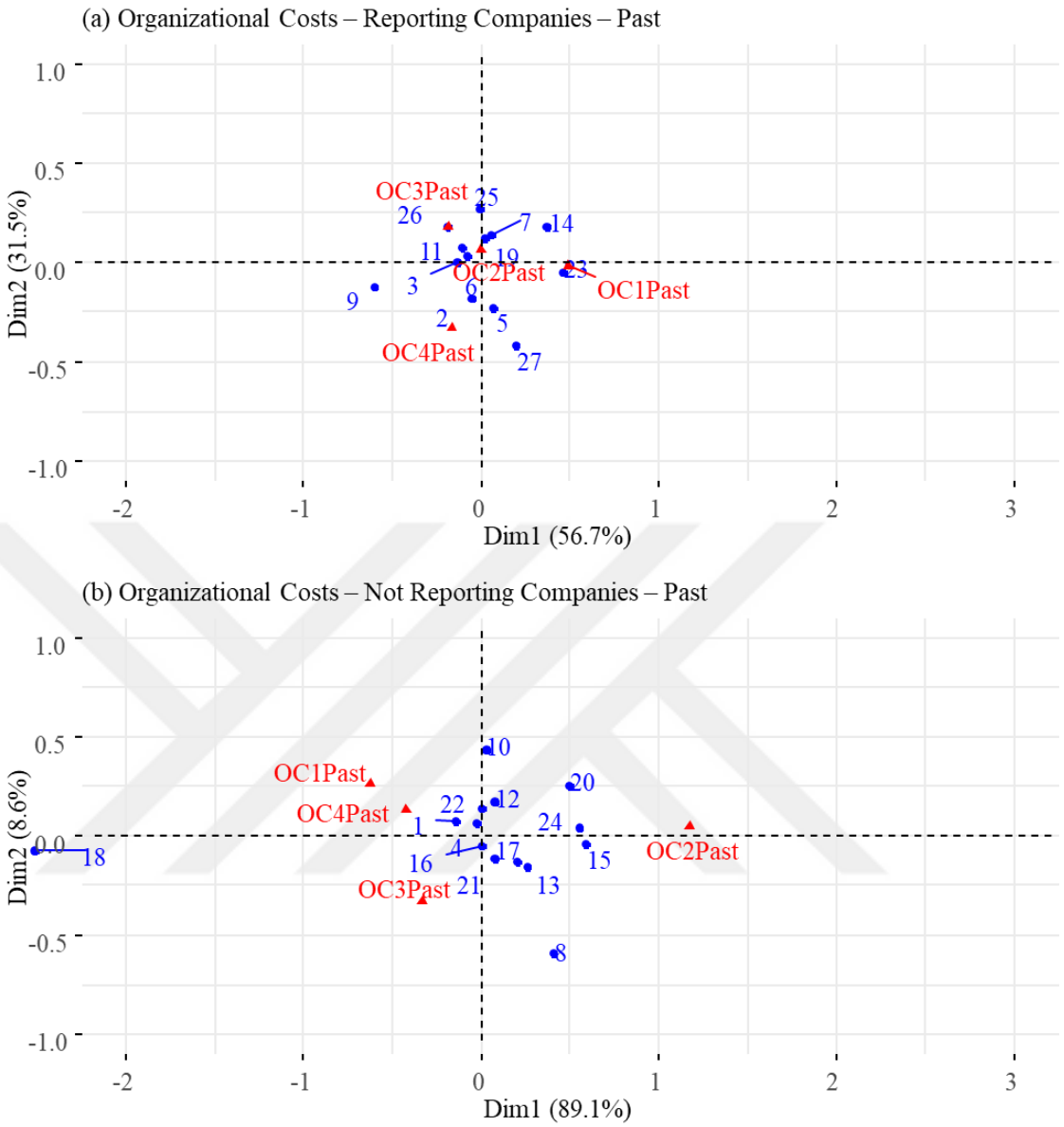
As demonstrated in Figure 109, Dimension 1 has 85.6 %, Dimension 2 has 7.9 % explanatory power. Total quality of display equals to 93.5 %. Projections of the profiles on Dimension 1 indicate that OC1, OC3 and OC4 are positioned close to each other. On the other hand, OC2 is situated away from them. Consequently, the biplot reflects that OC2 dominates the model. Assessments for the future seem similar to the assessments for present and the past. In addition, company number 18 is the outlier as it was on Figure 108.

6.8.2. Assessments of Reporting vs. Not Reporting Companies

In this section, the extent to which companies' judgements on lowering organizational costs varies in regard to sustainability reporting status or not.

Figure 110 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the past experiences.

Figure 110: Reporting vs. Not Reporting Companies – Past

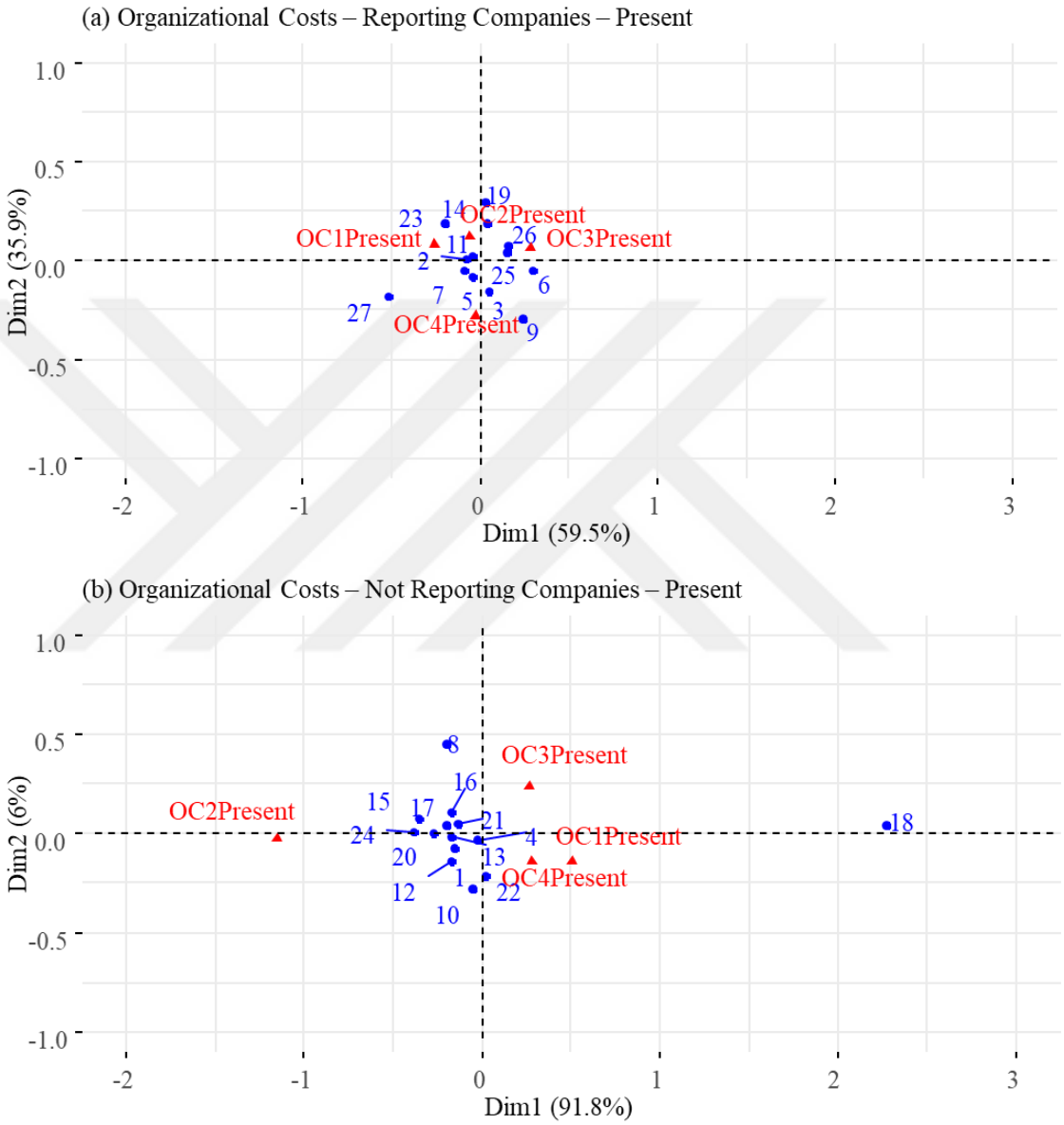


As it is seen on biplot (a) of Figure 110, Dimension 1 explains the 56.7 % of the model whereas Dimension 2 has 31.5 % explanatory power. Projections of profiles on Dimension 1 reflect that OC2, OC3 and OC4 are positioned close to each other, while OC1 is situated away and differentiates. Projections of profiles on Dimension 2 indicate that OC4 is differentiated.

As for the biplot (b) of Figure 110, Dimension 1 explains the 89.1 % of the model whereas Dimension 2 has 8.6 % explanatory power. Projections of profiles on Dimension 1 reflect that OC1, OC3 and OC4 are positioned close to each other, while OC2 is situated away and differentiates. Company number 18 is the outlier.

Figure 111 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the current situation (present).

Figure 111: Reporting vs. Not Reporting Companies – Present

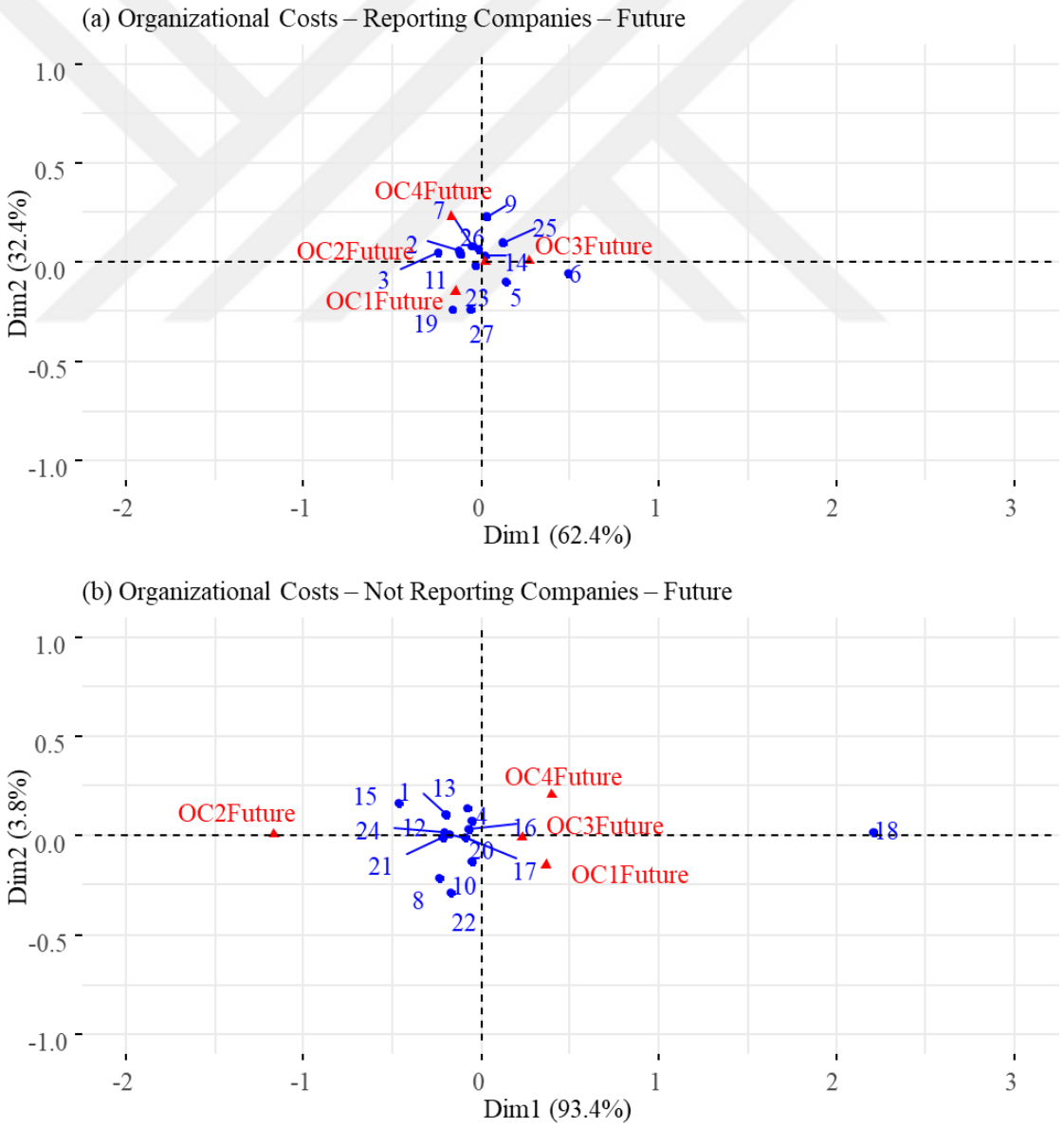


As it is seen on biplot (a) of Figure 111, Dimension 1 explains the 59.5 % of the model whereas Dimension 2 has 35.9 % explanatory power. According to the projections of profiles on Dimension 1 and Dimension 2, sub-items are situated towards origin with similar intervals. None of the sub-items are differentiated meaning that respondents distribute the 100 points to four sub-items with little differences.

As for the biplot (b) of Figure 111, Dimension 1 explains the 91.8 % of the model whereas Dimension 2 has 6 % explanatory power. Projections of profiles on Dimension 1 reflect that OC1, OC3 and OC4 are positioned close to each other, while OC2 is situated away and differentiates. Company number 18 is the outlier. These results are in parallel with the judgements of not reporting companies for the past.

Figure 112 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the future expectations and foresights.

Figure 112: Reporting vs. Not Reporting Companies – Future



As it is seen on biplot (a) of Figure 112, Dimension 1 explains the 62.4 % of the model whereas Dimension 2 has 32.4 % explanatory power. According to the projections of profiles on Dimension 1 and Dimension 2, sub-items are situated towards origin with similar intervals. OC2 is situated on the origin. None of the sub-items are differentiated meaning that respondents distribute the 100 points to four sub-items with little differences.

As for the biplot (b) of Figure 112, Dimension 1 explains the 93.4 % of the model whereas Dimension 2 has 3.8 % explanatory power. Projections of profiles on Dimension 1 reflect that OC1, OC3 and OC4 are positioned close to each other, while OC2 is situated away and differentiates. Company number 18 is the outlier. These results are in parallel with the judgements of not reporting companies for the past and present.

6.8.3. Assessments of Manufacturing vs. Service Sector

In this section, the extent to which companies' judgements on lowering organizational costs varies in regard to being from manufacturing or service sector.

Figure 113 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the past experiences.

Biplot of manufacturing sector (a) shows that Dimension 1 has 81.2 %, Dimension 2 has 11.5 % explanatory power. Projections of profiles on Dimension 1 reflect that OC1, OC3 and OC4 are positioned close to each other, while OC2 is situated away and differentiates. Company number 18 is the outlier. These results are in parallel with the judgements of not reporting companies.

Biplot of service sector (b) indicates that Dimension 1 has 54 %, Dimension 2 has 29.1 % explanatory power. In terms of projections of profiles on Dimension 1, OC1 and OC4 are close to each other while OC2 and OC3 are very close as well. It seems that respondents judge the components for lowering organizational costs as a composition of two groups.

Figure 113: Manufacturing vs. Service Sector – Past

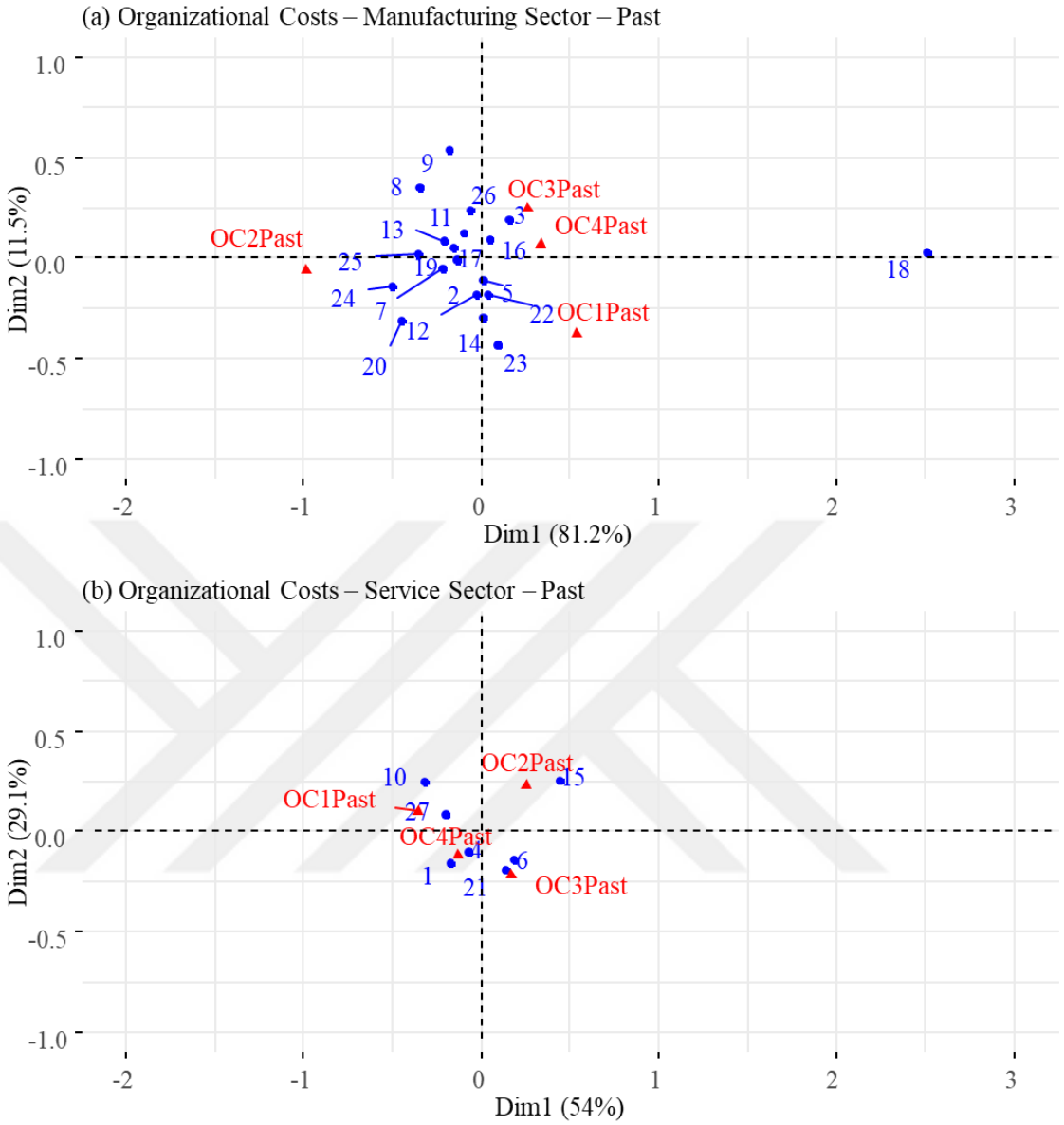


Figure 114 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the current situation (present).

Biplot (a) of manufacturing sector of Figure 114 shows that Dimension 1 has 88.3 %, Dimension 2 has 6.7 % explanatory power. Projections of profiles on Dimension 1 reflect that OC1, OC3 and OC4 are positioned close to each other, while OC2 is situated away and differentiates. Company number 18 is the outlier. These results are in parallel with the assessments of manufacturing sector for the past.

Biplot (b) of service sector indicates that Dimension 1 has 76.4 %, Dimension 2 has 13.5 % explanatory power. In terms of projections of profiles on Dimension 1, OC2 and OC4 are close to each other and to the origin while OC1 and OC3 are positioned a bit far away. OC1 and OC3 have differentiation in some degree relative to OC2 and OC4.

Figure 114: Manufacturing vs. Service Sector – Present

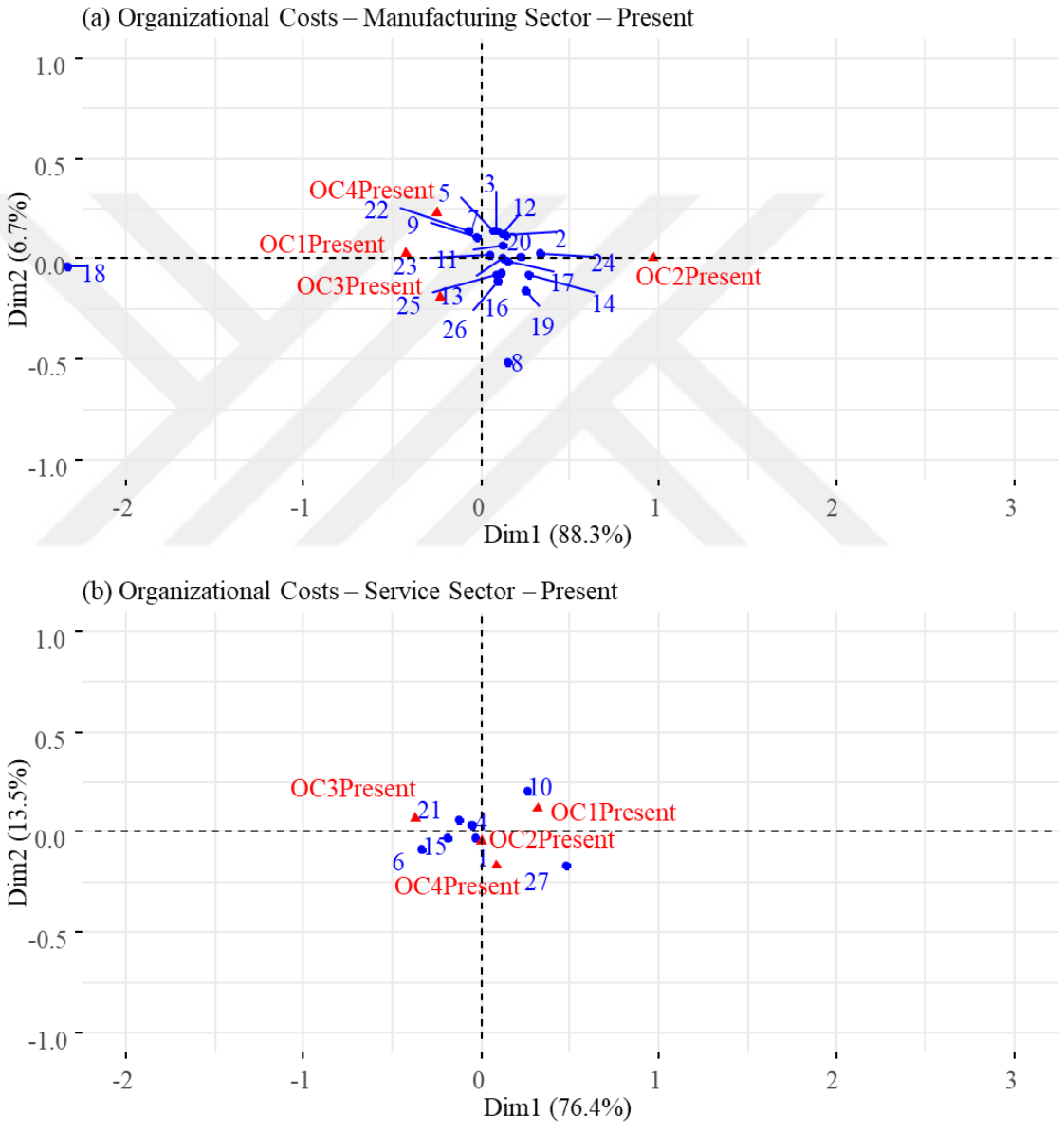
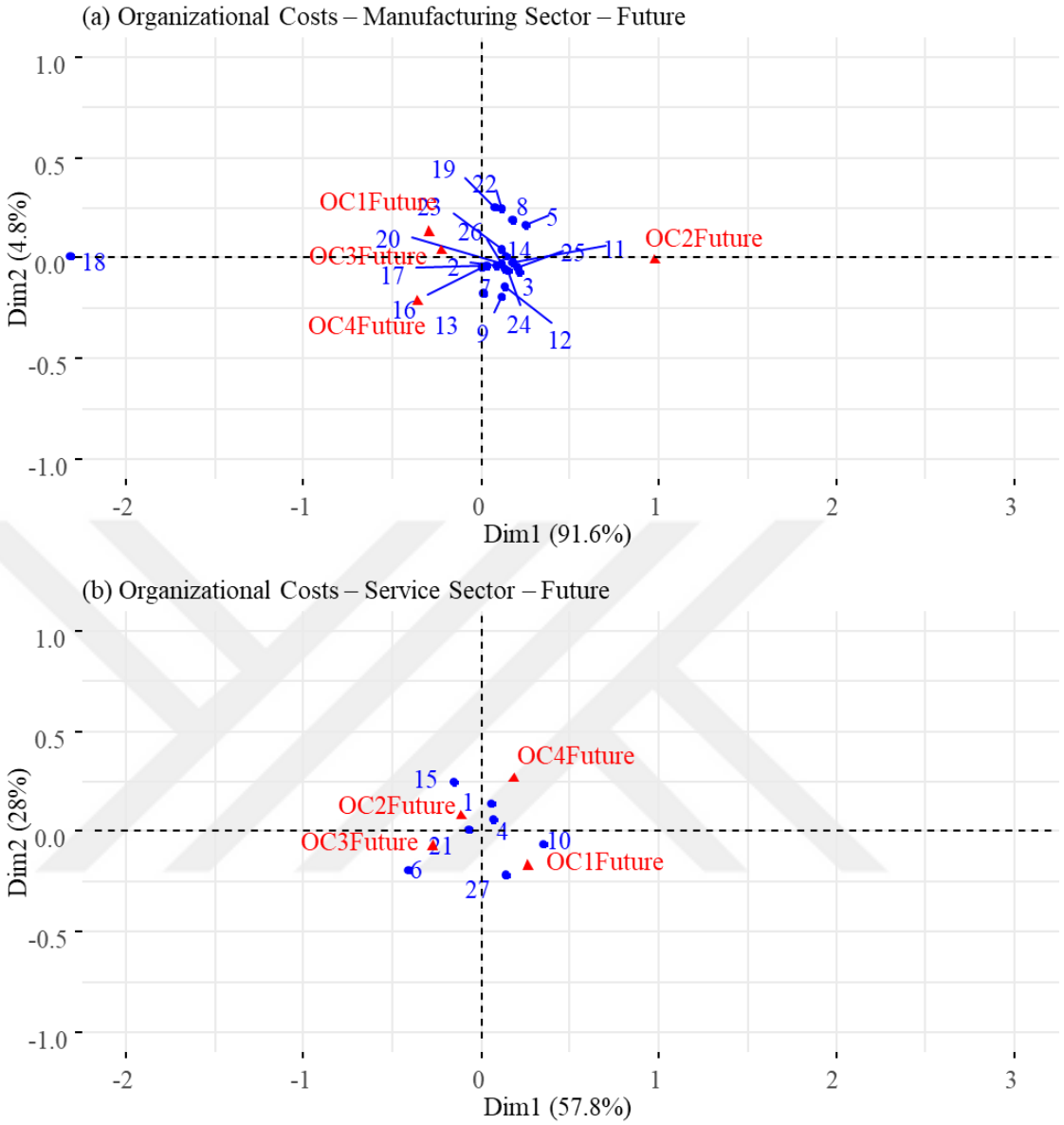


Figure 115 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the future expectations and foresights.

Figure 115: Manufacturing vs. Service Sector – Future



Biplot (a) of Figure 115 shows that Dimension 1 has 91.6 %, Dimension 2 has 4.8 % explanatory power. Projections of profiles on Dimension 1 reflect that OC1, OC3 and OC4 are positioned close to each other, while OC2 is situated away and differentiates. Company number 18 is the outlier. These results are in parallel with the assessments of manufacturing sector for the past and the present.

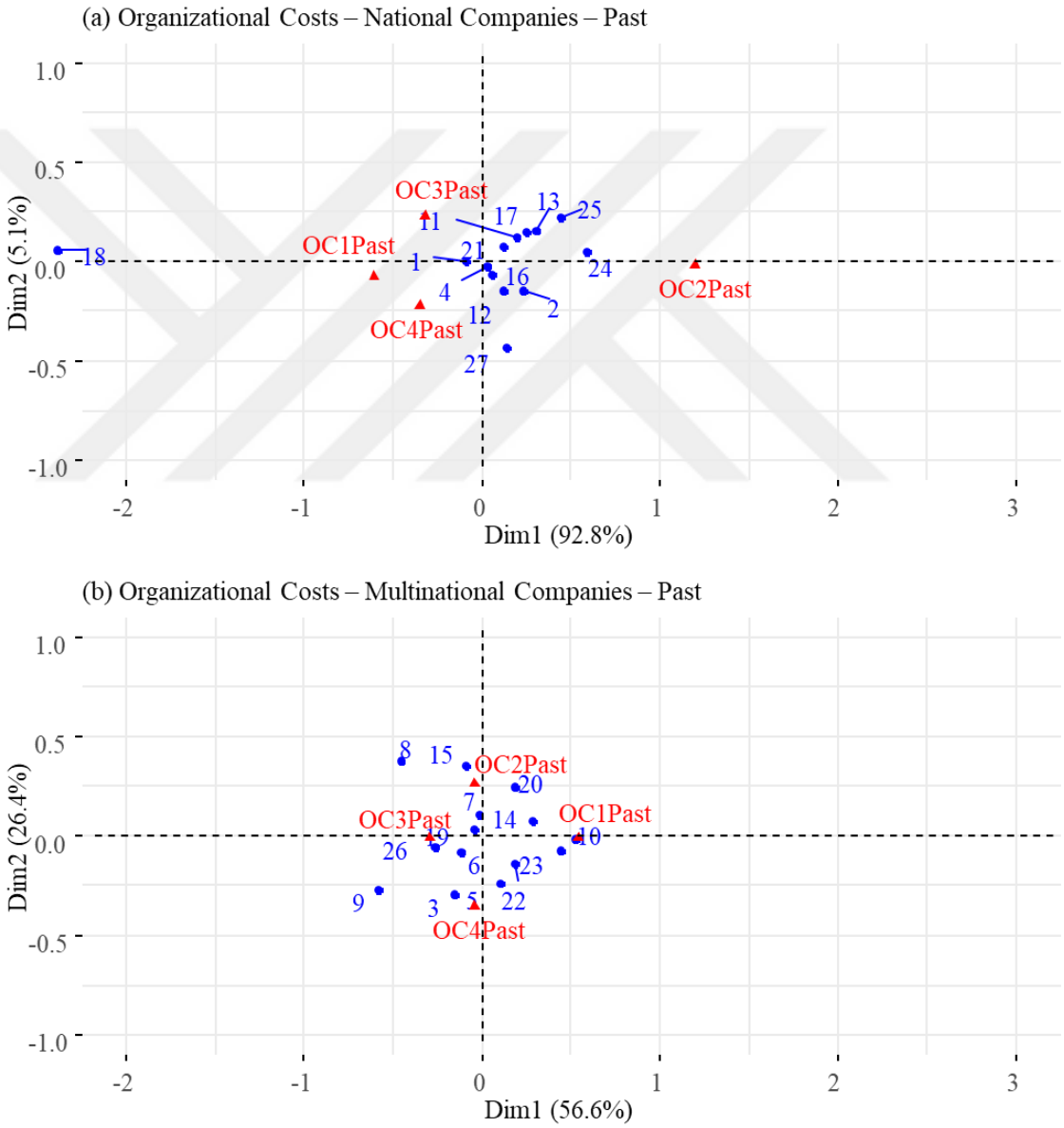
Biplot (b) of Figure 115 indicates that Dimension 1 has 57.8 %, Dimension 2 has 28 % explanatory power. In terms of projections of profiles on Dimension 1, OC1 and OC4 are close to each other while OC2 and OC3 are very close as well. It seems that respondents judge the components for lowering organizational costs as a composition of two groups. Projections of profiles on Dimension 2 indicate that OC4 is differentiated.

6.8.4. Assessments of National vs. Multinational Companies

In this section, the extent to which companies' judgements on lowering organizational costs varies in regard to being national or multinational.

Figure 116 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the past experiences.

Figure 116: National vs. Multinational Companies – Past



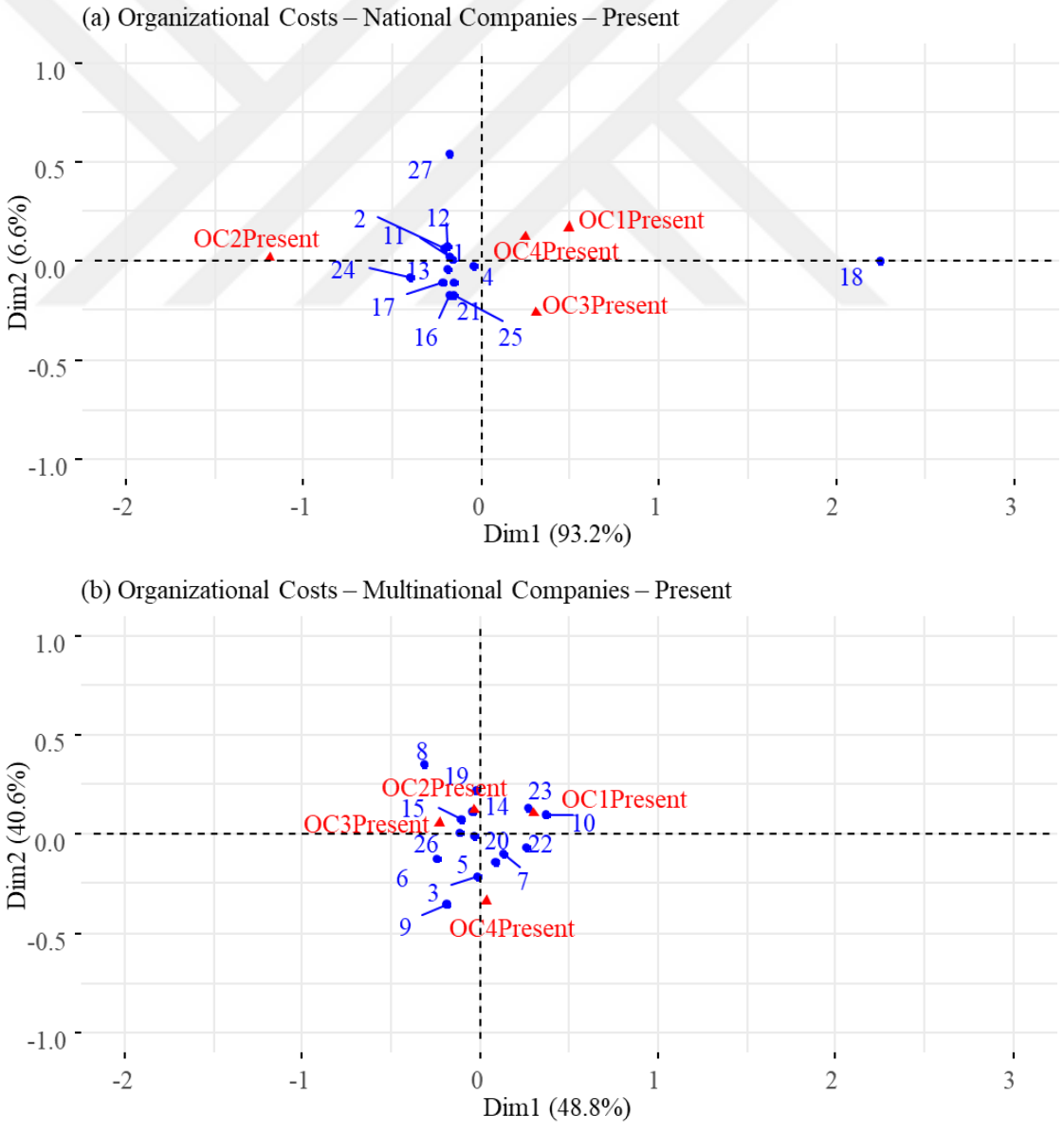
Biplot (a) of Figure 116 presents that Dimension 1 has 92.8 %, Dimension 2 has 5.1 % explanatory power. Projections of profiles on Dimension 1 reflect that OC1, OC3 and OC4 are positioned close to each other, while OC2 is situated away

and differentiates. Company number 18 is the outlier. These results are in parallel with the assessments of not reporting companies and manufacturing sector as stated in the previous sections.

Biplot (b) of Figure 116 demonstrate that Dimension 1 has 56.6 %, Dimension 2 has 26.4 % explanatory power. According to profile projections on Dimension 1, OC1; according to profile projections on Dimension 2, OC4 are positioned as differentiated.

Figure 117 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the current situation (present).

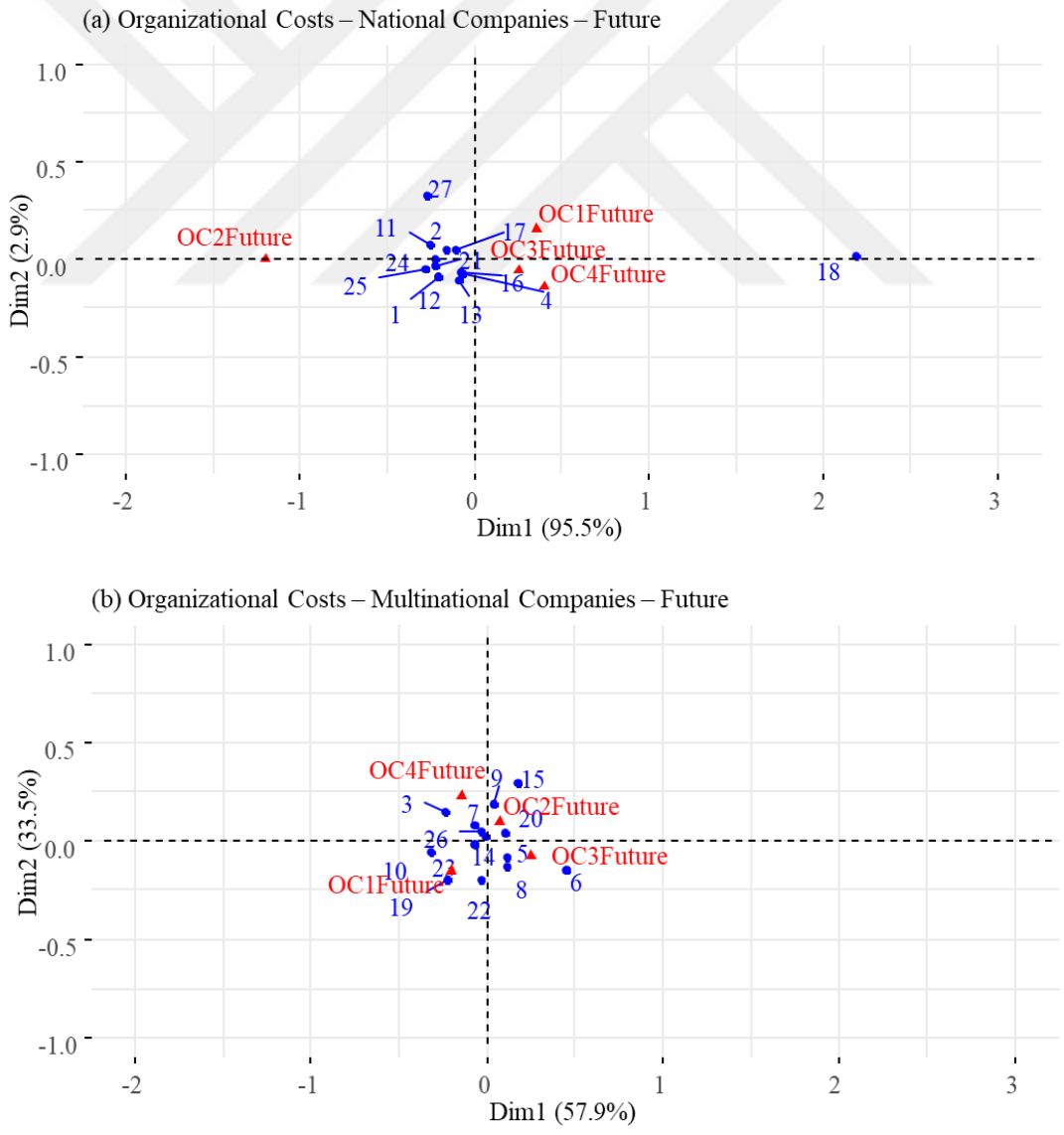
Figure 117: National vs. Multinational Companies – Present



Biplot (a) of national companies presents that Dimension 1 has 93.2 %, Dimension 2 has 6.6 % explanatory power. Projections of profiles on Dimension 1 reflect that OC1, OC3 and OC4 are positioned close to each other, while OC2 is situated away and differentiates. Company number 18 is the outlier. These results are in parallel with Figure 116. Biplot (b) of multinational companies demonstrate that Dimension 1 has 48.8 %, Dimension 2 has 40.6 % explanatory power. According to profile projections on Dimension 1 and 2, OC4 are positioned as differentiated.

Figure 118 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the future expectations and foresights.

Figure 118: National vs. Multinational Companies – Future



Biplot (a) of Figure 118 presents that Dimension 1 has 95.5 %, Dimension 2 has 2.9 % explanatory power. Projections of profiles on Dimension 1 reflect that OC1, OC3 and OC4 are positioned close to each other, while OC2 is situated away and differentiates. Company number 18 is the outlier. These results are in parallel with Figure 117.

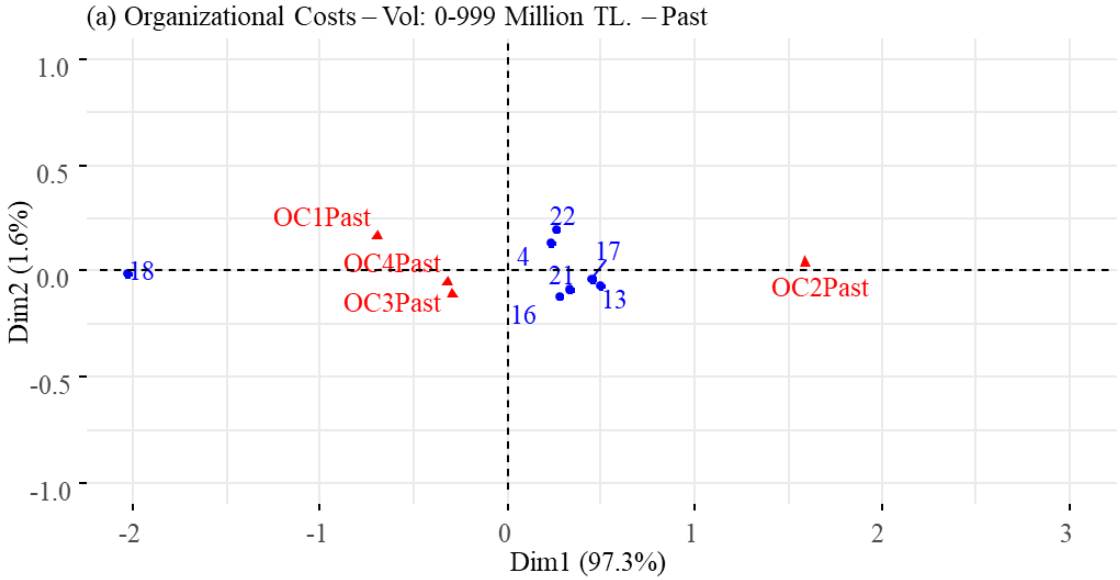
Biplot (b) of Figure 118 demonstrate that Dimension 1 has 57.9 %, Dimension 2 has 33.5 % explanatory power. As presented on the display, all sub-items get closer to the origin. This means that respondents have given similar scores that are close to each other. Therefore, it can be interpreted that they have a holistic view on the components of lowering organizational costs for the future.

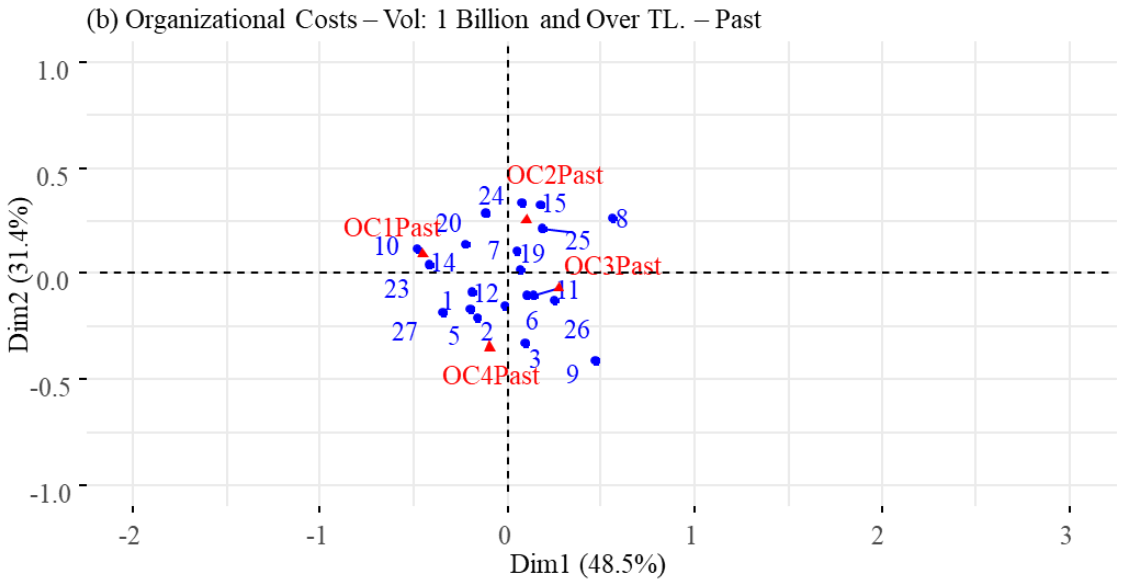
6.8.1. Assessments Related to Business Volume

In this section, the extent to which companies' judgements on lowering organizational costs varies in regard to annual business volume.

Figure 119 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the past experiences.

Figure 119: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past





Biplot (a) of Figure 119 has 98.9 % explanatory power in general; Dimension 1 has 97.3 %, Dimension 2 has 1.6 % explanatory power. It means that 97.3 % of the display is explained on Dimension 1. Projections of profiles on Dimension 1 reflect that OC1, OC3 and OC4 are positioned close to each other, while OC2 is situated away and differentiates. Company number 18 is the outlier.

Assessments of the companies with at least 1 billion TL. business volume as presented by biplot (b) indicate that Dimension 1 explains the 48.5 % of the model whereas Dimension 2 has 31.4 % explanatory power. Projections of profiles on Dimension 2 reflect that OC4 are positioned as differentiated.

Figure 120 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the current situation (present).

Biplot (a) of Figure 120 has 98.9 % explanatory power in general; Dimension 1 has 98.2 %, Dimension 2 has 1.7 % explanatory power. It means that 98.2 % of the display is explained on Dimension 1. Projections of profiles on Dimension 1 reflect that OC1, OC3 and OC4 are positioned close to each other, while OC2 is situated away and differentiates. Company number 18 is the outlier.

Assessments of the companies with at least 1 billion TL. business volume as presented by biplot (b) indicate that Dimension 1 explains the 57.3 % of the model whereas Dimension 2 has 31.9 % explanatory power. Projections of profiles on Dimension 2 reflect that OC4 are positioned as differentiated. These findings are in parallel with Figure 119.

Figure 120: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present

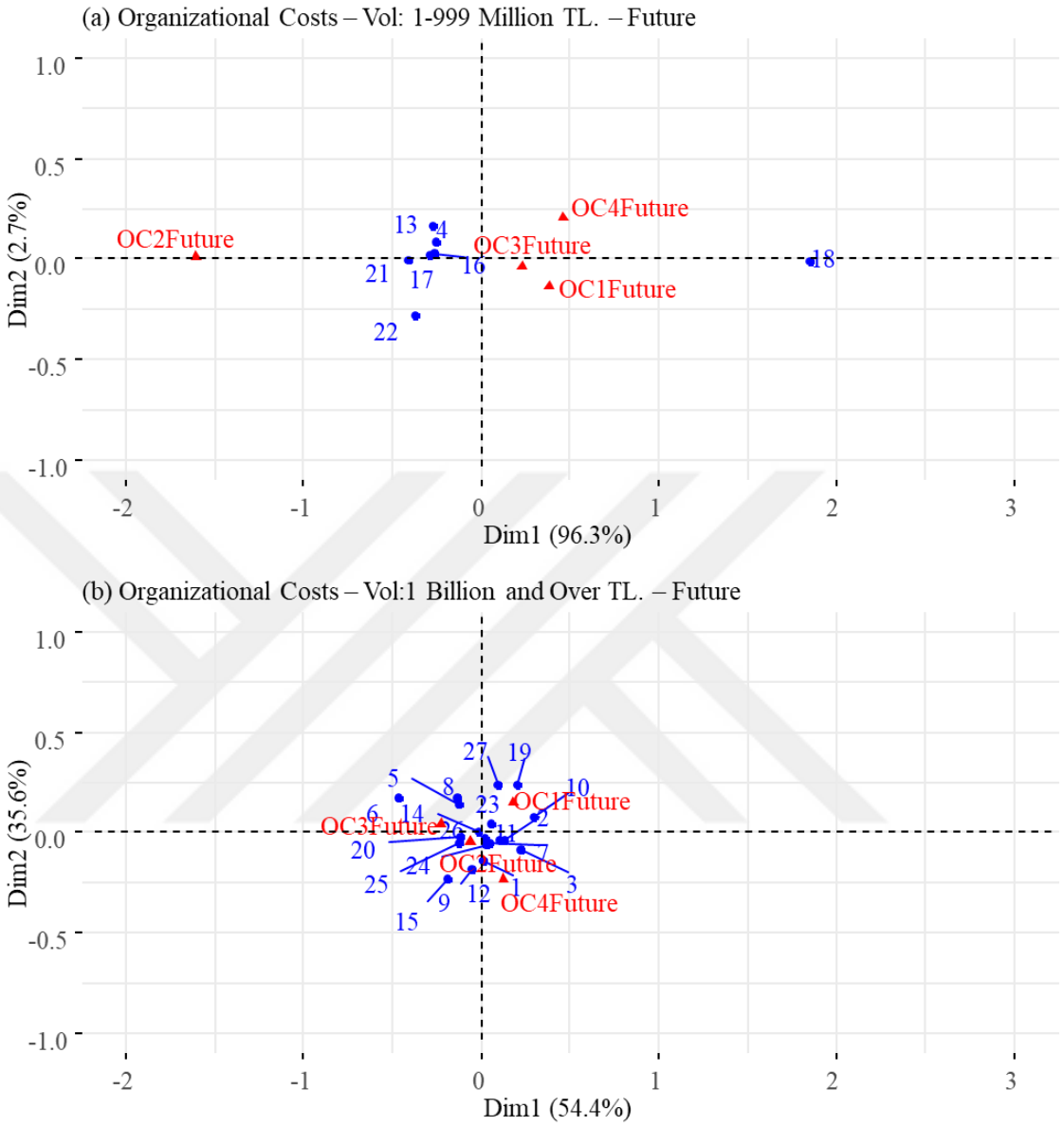


Figure 121 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the future expectations and foresights.

Biplot (a) of Figure 121 has 98.9 % explanatory power in general; Dimension 1 has 96.3 %, Dimension 2 has 2.7 % explanatory power.

Assessments of the companies with at least 1 billion TL. business volume as presented by biplot (b) indicate that Dimension 1 explains the 54.4 % of the model whereas Dimension 2 has 35.6 % explanatory power. Findings are in parallel with Figure 120.

Figure 121: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future



6.9. Findings for Corporate Communication

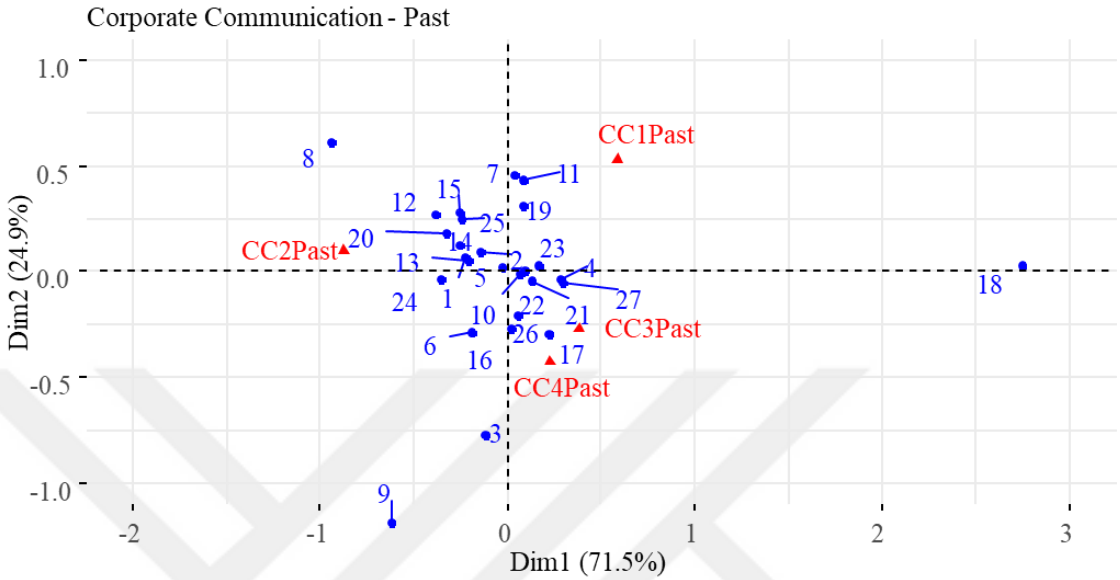
Under this topic, judgements of companies regarding to the components related with improving corporate communication are discussed.

6.9.1. General Characteristics of Past - Present – Future Assessments

In this section, CC1 symbolizes publishing a sustainability section on corporate website, CC2 symbolizes sustainability reporting, CC3 membership to

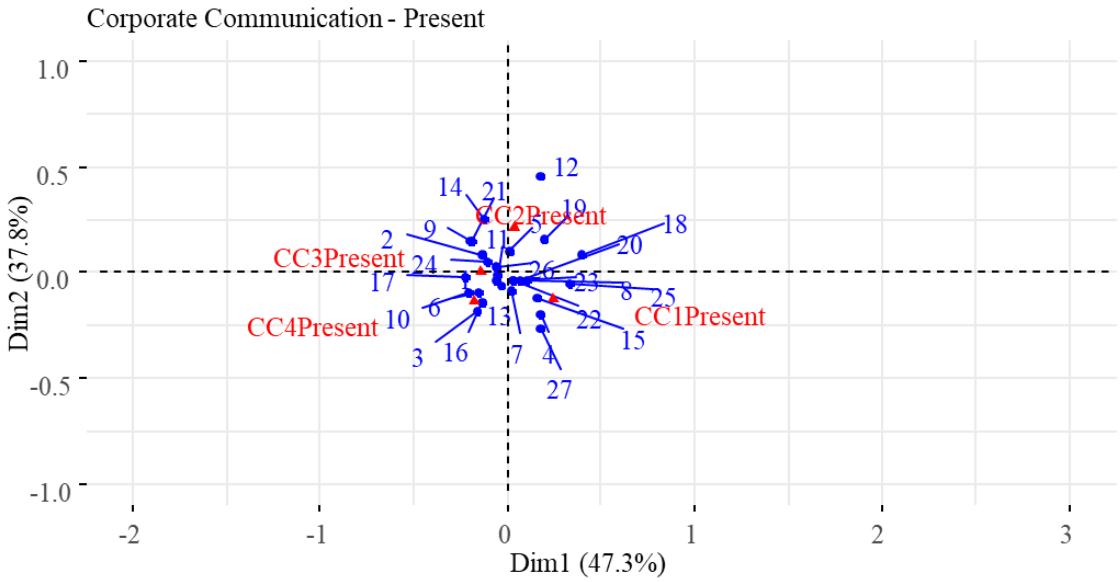
sustainability organizations, and CC4 symbolizes participating in sustainability rankings.

Figure 122: Corporate Communication – Past



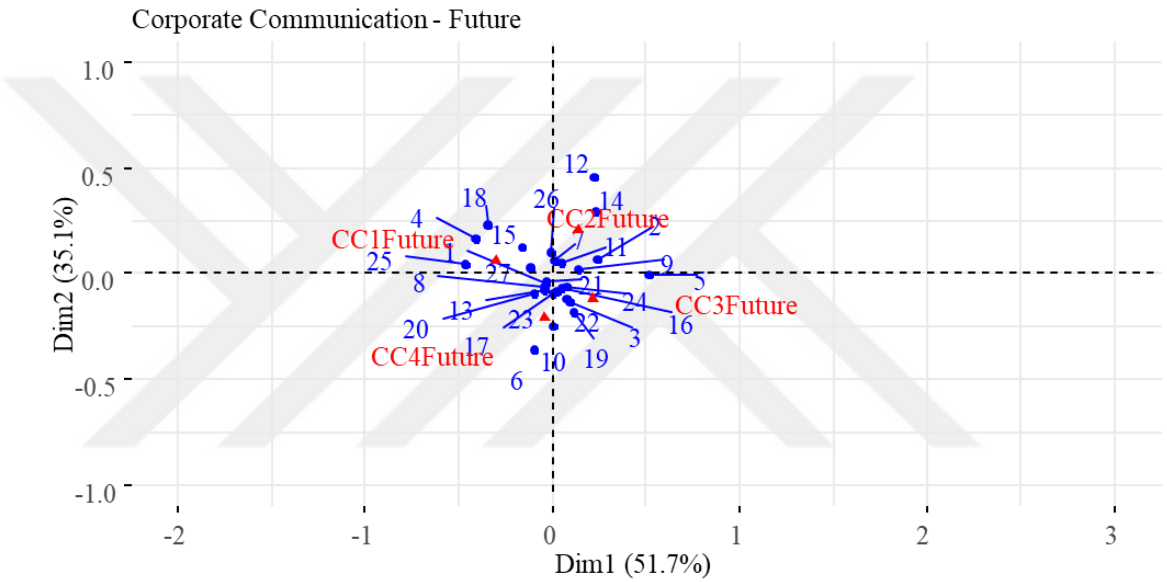
As demonstrated in Figure 122, Dimension 1 has 71.5 %, Dimension 2 has 24.9 % explanatory power. Total quality of display equals to 96.4 %. Projections of the profiles on Dimension 1 indicate that CC1, CC3 and CC4 are positioned close to each other. On the other hand, CC2 is situated away from them. Consequently, the biplot reflects that CC2 dominates the model. Company number 18 is the outlier.

Figure 123: Corporate Communication – Present



Further, as demonstrated in Figure 123, Dimension 1 has 47.3 %, Dimension 2 has 37.8 % explanatory power. Total quality of display equals to 85.1 %. Compared to the assessments for the future, it is seen that all sub-items get closer to each other and positioned around the origin with similar intervals. It means that the scores are close to average. Respondents' judgements for CC3 and CC4 are similar and converge on Dimension 1. Differentiation can be interpreted for CC1 and CC2 in some degree relatively to the CC3 and CC4.

Figure 124: Corporate Communication - Future



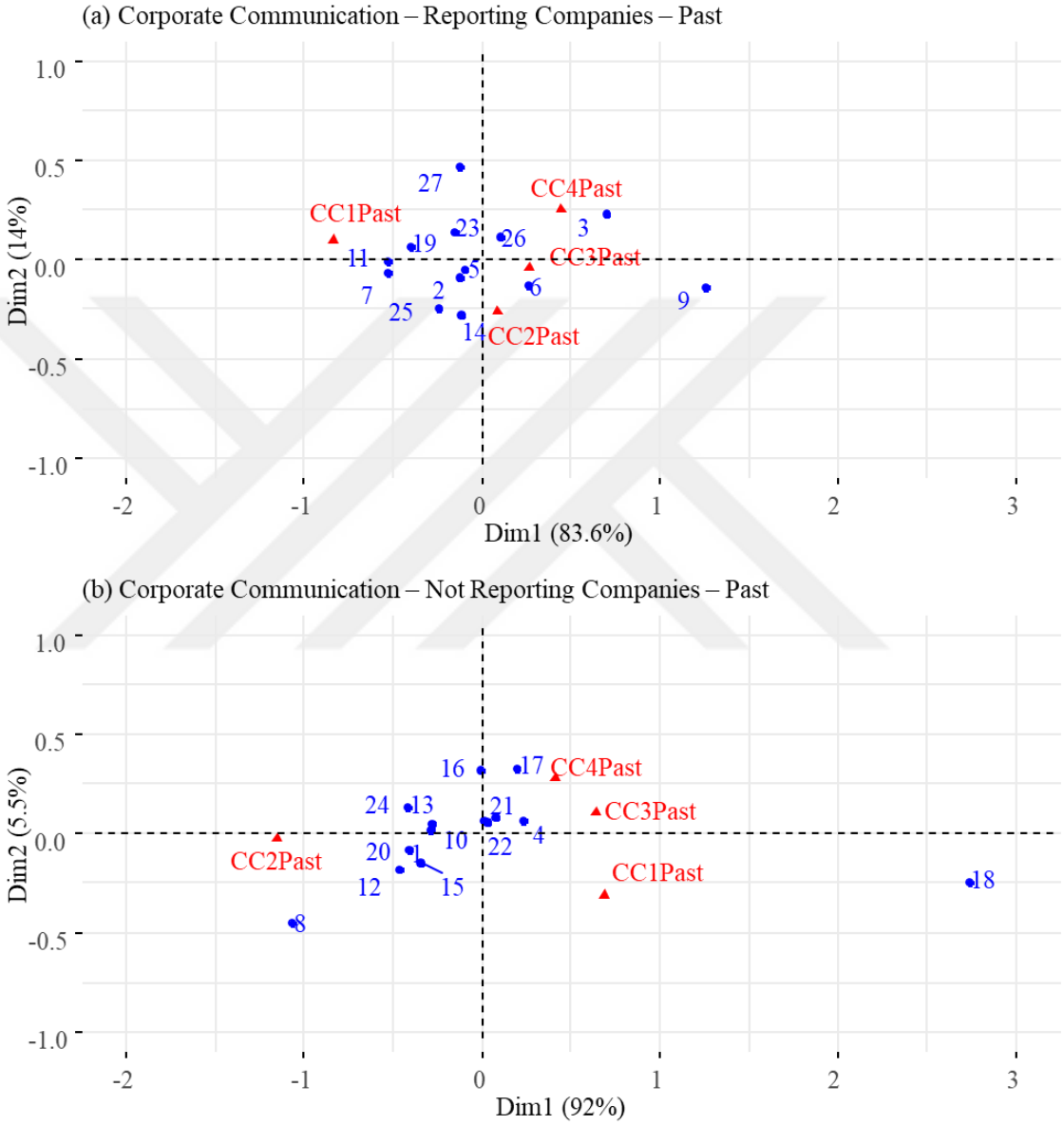
As demonstrated in Figure 124, Dimension 1 has 51.7 %, Dimension 2 has 35.1 % explanatory power. Total quality of display equals to 85.1 %. Compared to the assessments for the future, it is seen that all sub-items get closer to each other and positioned around the origin with similar intervals. It means that the scores are close to average. Respondents' judgements for CC3 and CC4 are similar and converge on Dimension 1. Differentiation can be interpreted for CC1 and CC2 in some degree relatively to the CC3 and CC4.

6.9.2. Assessments of Reporting vs. Not Reporting Companies

In this section, the extent to which companies' judgements on improving corporate communication varies in regard to sustainability reporting status or not.

Figure 125 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the past experiences.

Figure 125: Reporting vs. Not Reporting Companies – Past



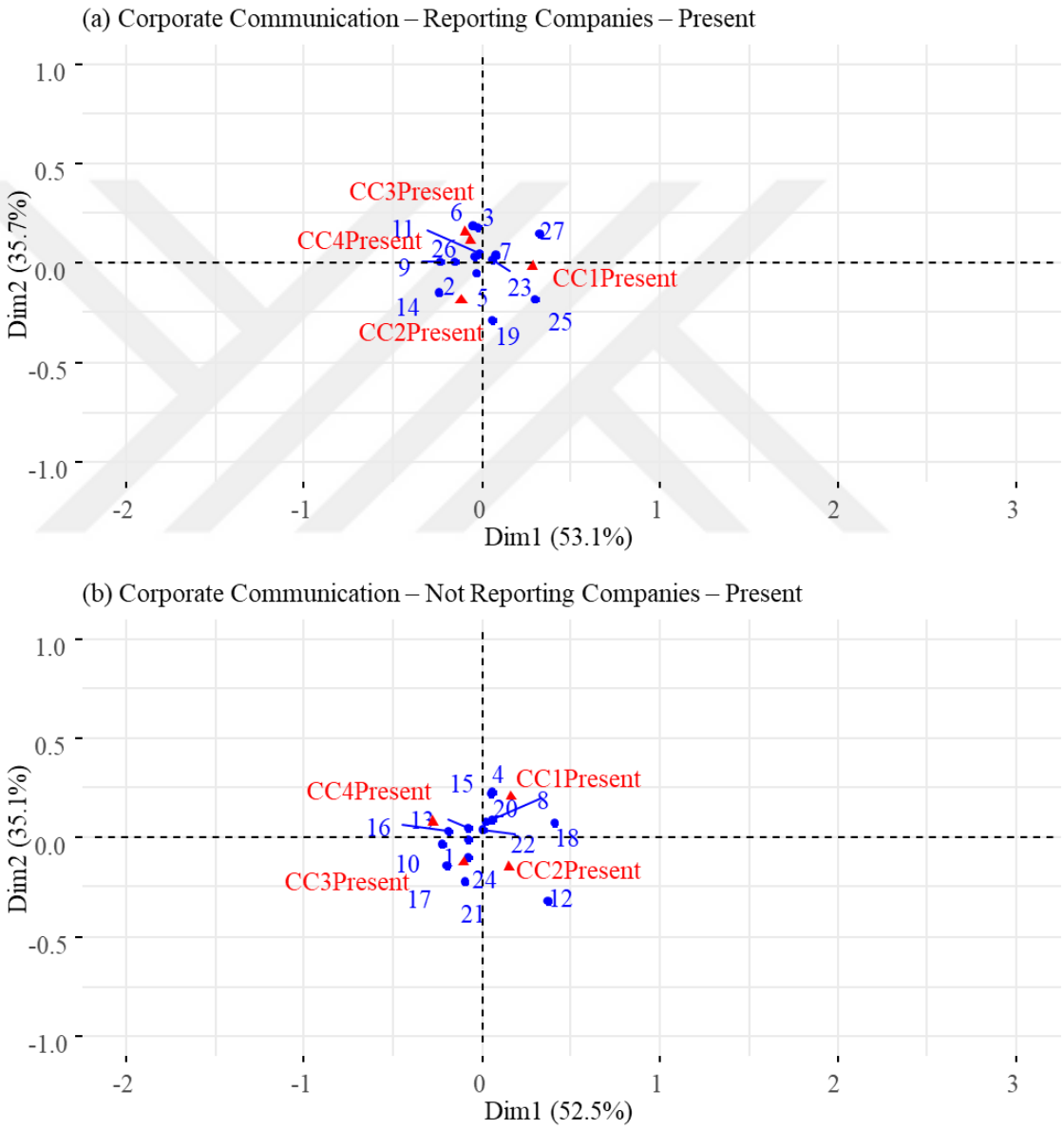
As it is seen on biplot (a) of Figure 125, Dimension 1 explains the 83.6 % of the model whereas Dimension 2 has 14 % explanatory power. Projections of profiles on Dimension 1 reflect that CC2, CC3 and CC4 are positioned close to each other, while CC1 is situated away and differentiates.

As for the biplot (b) of Figure 125, Dimension 1 explains the 92 % of the model whereas Dimension 2 has 5.5 % explanatory power. Projections of profiles on

Dimension 1 reflect that CC1, CC3 and CC4 are positioned close to each other, while CC2 is situated away and differentiates. Company number 18 is the outlier.

Figure 126 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the current situation (present).

Figure 126: Reporting vs. Not Reporting Companies – Present



As it is seen on biplot (a) of Figure 126, Dimension 1 explains the 53.1 % of the model whereas Dimension 2 has 35.7 % explanatory power. According to the projections of profiles on Dimension 1 and Dimension 2, sub-items are situated towards origin with similar intervals. Particularly, respondents' judgements for CC3

and CC4 are similar and converge on Dimension 1. Differentiation can be interpreted for CC1 and CC2 in some degree relatively to the CC3 and CC4. However, it is seen that scores are close to the average.

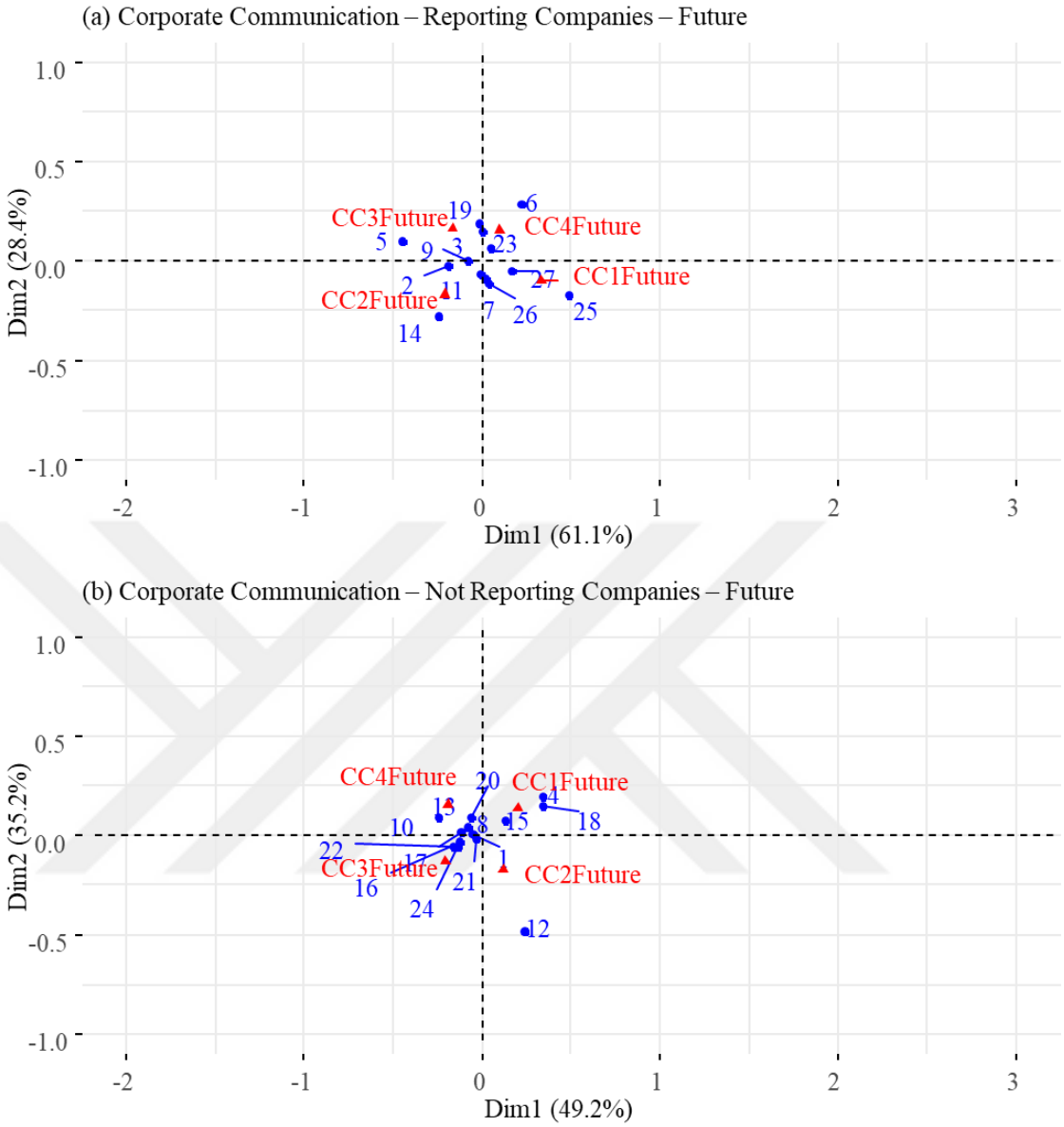
As for the biplot (b) of Figure 126, Dimension 1 explains the 52.5 % of the model whereas Dimension 2 has 35.1 % explanatory power. Compared to the assessments for the past, it is seen that all sub-items get closer to each other and positioned around the origin with similar intervals. It means that the scores are close to average.

Figure 127 demonstrates companies that issue sustainability report with biplot (a) and companies that do not issue sustainability report with biplot (b). Assessments figure out the future expectations and foresights.

As it is seen on biplot (a) of Figure 127, Dimension 1 explains the 61.1 % of the model whereas Dimension 2 has 28.4 % explanatory power. According to the projections of profiles on Dimension 1 and Dimension 2, sub-items are situated towards origin with similar intervals. Profile projections of reporting companies both on Dimension 1 in itself and Dimension 2 in itself have almost the same intervals. This means that respondents have given similar scores that are close to each other to all the four sub-item of corporate communication. Therefore, it can be interpreted that they have a holistic view on the components of on corporate communication for the future.

As for the biplot (b) of Figure 127, Dimension 1 explains the 49.2 % of the model whereas Dimension 2 has 35.2 % explanatory power. Respondents from not reporting companies have given similar scores that are close to each other to all the four sub-item of corporate communication. Therefore, it can be interpreted that they have a holistic view on the components of on corporate communication for the future as reporting companies have.

Figure 127: Reporting vs. Not Reporting Companies - Future

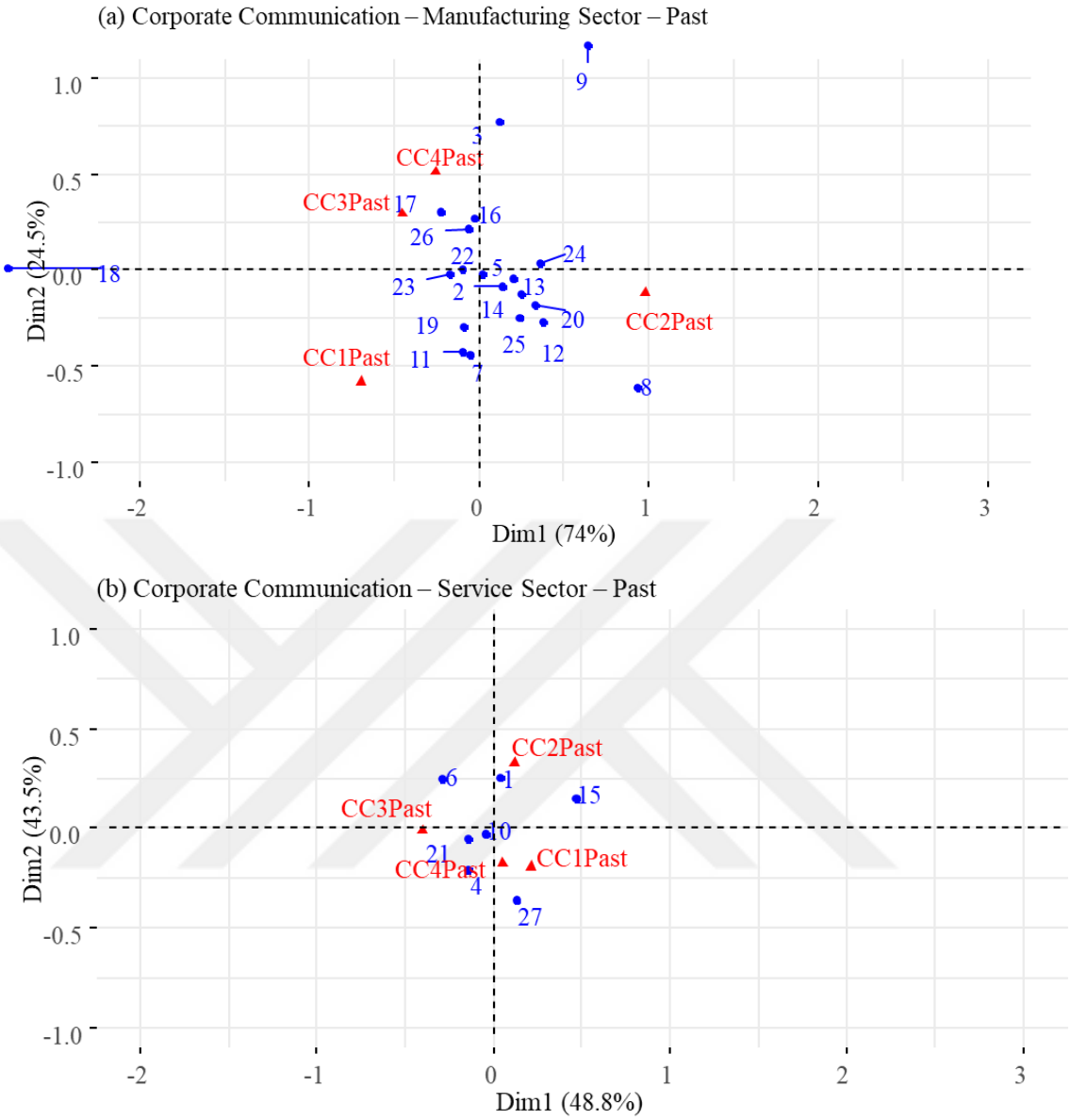


6.9.3. Assessments of Manufacturing vs. Service Sector

In this section, the extent to which companies' judgements on improving corporate communication varies in regard to being from manufacturing or service sector.

Figure 128 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the past experiences.

Figure 128: Manufacturing vs. Service Sector – Past

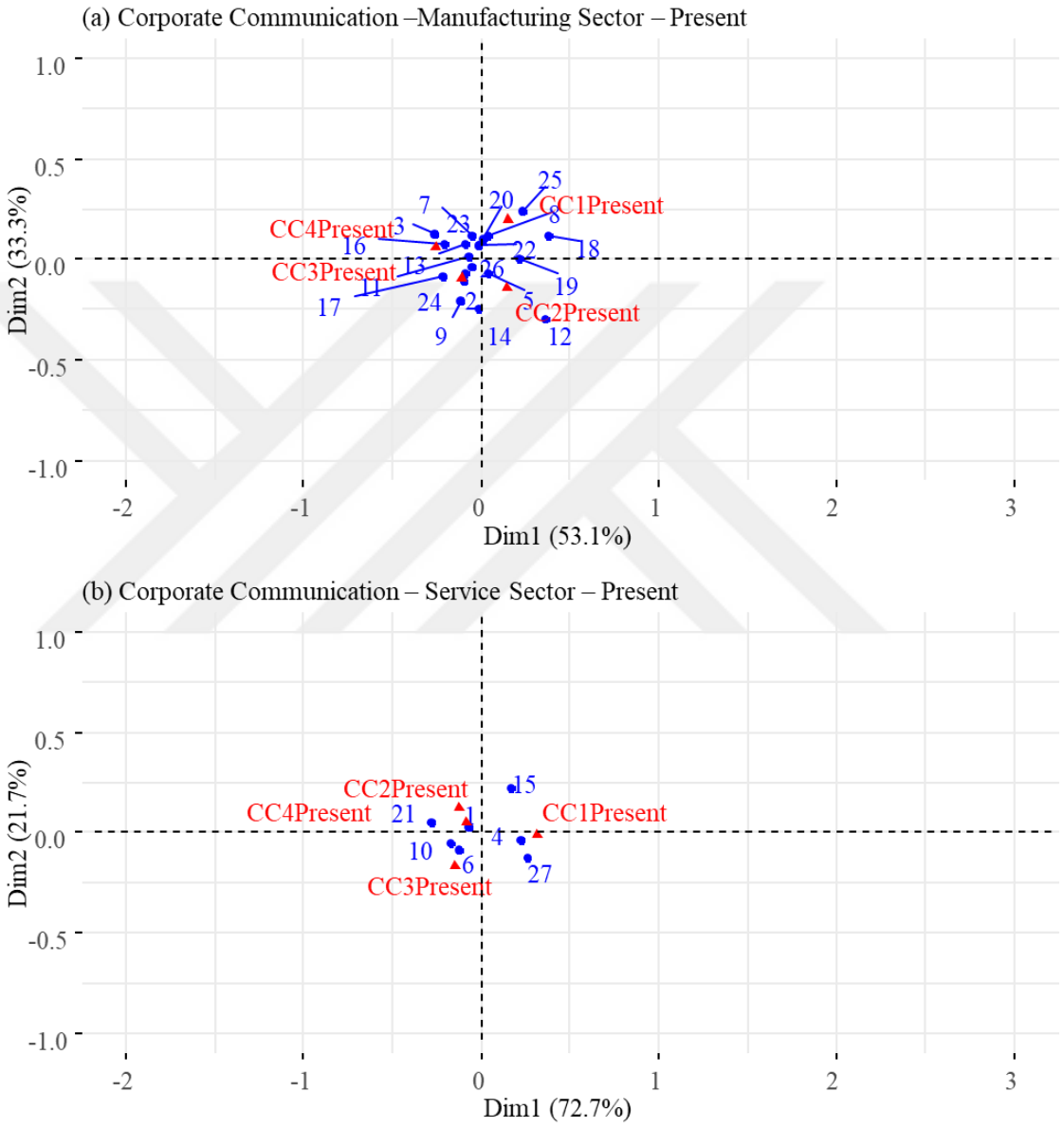


Biplot (a) of manufacturing sector shows that Dimension 1 has 74 %, Dimension 2 has 24.5 % explanatory power. According to the projections of profiles on Dimension 1 and Dimension 2, CC3 and CC4 are positioned close to each other. This means that respondents' judgements for similar. However, CC1 and CC2 are situated away and differentiated. Company number 9 and number 18 are the outliers.

Biplot (b) of service sector indicates that Dimension 1 has 48.8 %, Dimension 2 has 43.5 % explanatory power. In terms of projections of profiles on Dimension 1, CC1, CC2 and OC4 are close to each other while CC3 is differentiated and dominate the model.

Figure 129 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the current situation (present).

Figure 129: Manufacturing vs. Service Sector – Present

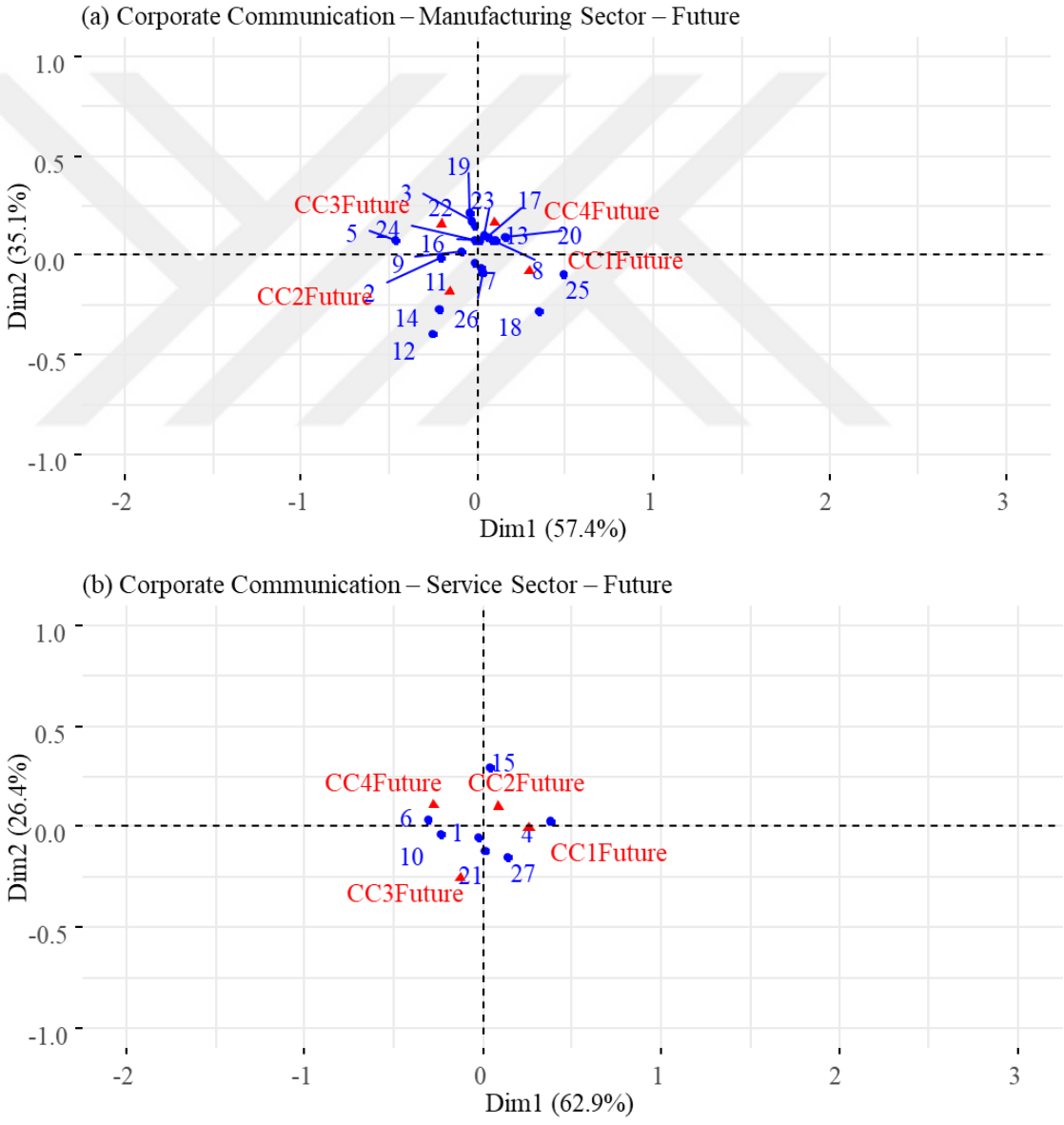


Biplot (a) of manufacturing sector shows that Dimension 1 has 53.1 %, Dimension 2 has 33.3 % explanatory power. In terms of projections of profiles on Dimension 1, all sub-items are positioned closely. In terms of projections of profiles on Dimension 2, CC1 has differentiation in some degree. Generally, composition of corporate communication components is holistic.

Biplot (b) of service sector indicates that Dimension 1 has 72 %, Dimension 2 has 21.7 % explanatory power. In terms of projections of profiles on Dimension 1, CC2, CC3 and OC4 are close to each other while CC3 is differentiated and dominate the model.

Figure 130 demonstrates companies from manufacturing sector with biplot (a) and companies from service sector with biplot (b). Assessments figure out the future expectations and foresights.

Figure 130: Manufacturing vs. Service Sector – Future



Biplot (a) of manufacturing sector shows that Dimension 1 has 57.4 %, Dimension 2 has 35.1 % explanatory power. In terms of projections of profiles on Dimension 1, all sub-items are positioned closely. In terms of projections of profiles

on Dimension 2, CC2 has differentiation in some degree. Generally, composition of corporate communication components is holistic.

Biplot (b) of service sector indicates that Dimension 1 has 62.9 %, Dimension 2 has 26.4 % explanatory power. In terms of projections of profiles on Dimension 1, all sub-items are positioned closely. In terms of projections of profiles on Dimension 2, CC3 has differentiation in some degree. Generally, composition of corporate communication components is holistic.

6.9.4. Assessments of National vs. Multinational Companies

In this section, the extent to which companies' judgements on improving corporate communication varies in regard to being national or multinational.

Figure 131 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the past experiences.

Biplot (a) of Figure 131 presents that Dimension 1 has 91.1 %, Dimension 2 has 6.1 % explanatory power. Projections of profiles on Dimension 1 reflect that CC1, CC3 and CC4 are positioned close to each other, while CC2 is situated away and differentiates. Company number 18 is the outlier.

Biplot (b) of multinational companies demonstrate that Dimension 1 has 64.7 %, Dimension 2 has 30.3 % explanatory power. Particularly, respondents' judgements for CC3 and CC4 are similar and closely positioned on Dimension 1. Differentiation can be interpreted for CC1 and CC2. Company number 8 and number 9 are the outliers.

Figure 131: National vs. Multinational Companies – Past

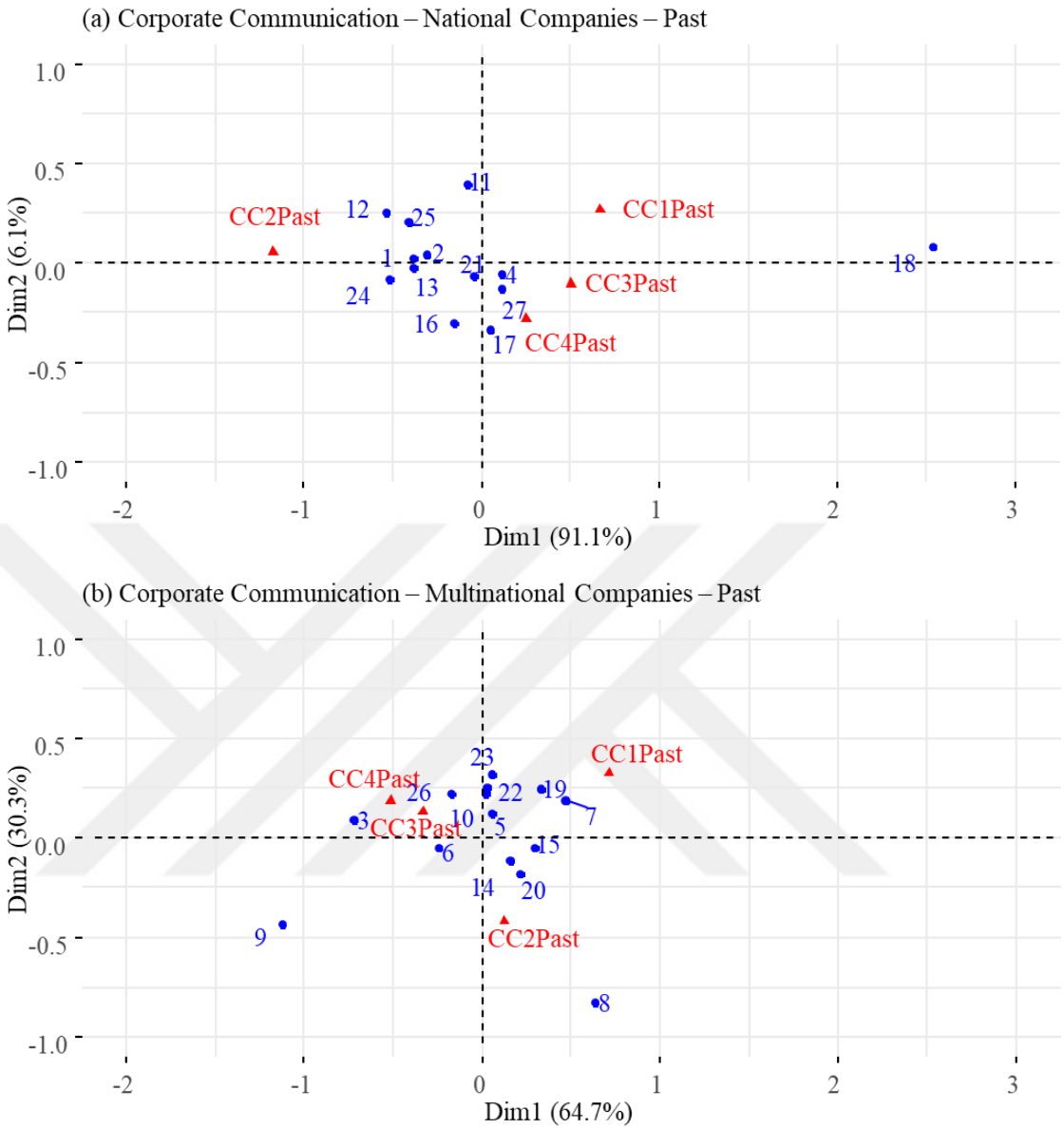


Figure 132 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the current situation (present).

Biplot (a) of Figure 132 presents that Dimension 1 has 52.4 %, Dimension 2 has 38.9 % explanatory power. Projections of profiles on Dimension 1 reflect that CC2, CC3 and CC4 are positioned closely to each other, while CC1 is differentiated in some degree. As for the projections of profiles on Dimension 2, CC2 is differentiated.

Biplot (b) of Figure 132 demonstrates that Dimension 1 has 48.1 %, Dimension 2 has 38.9 % explanatory power. Projections of the profiles on Dimension 1 and Dimension 2 indicate that sub-items are not differentiated to a large

extent. It can be interpreted as respondents judge all items with similar scores and they have a holistic view on the composition of corporate communication for present.

Figure 132: National vs. Multinational Companies – Present

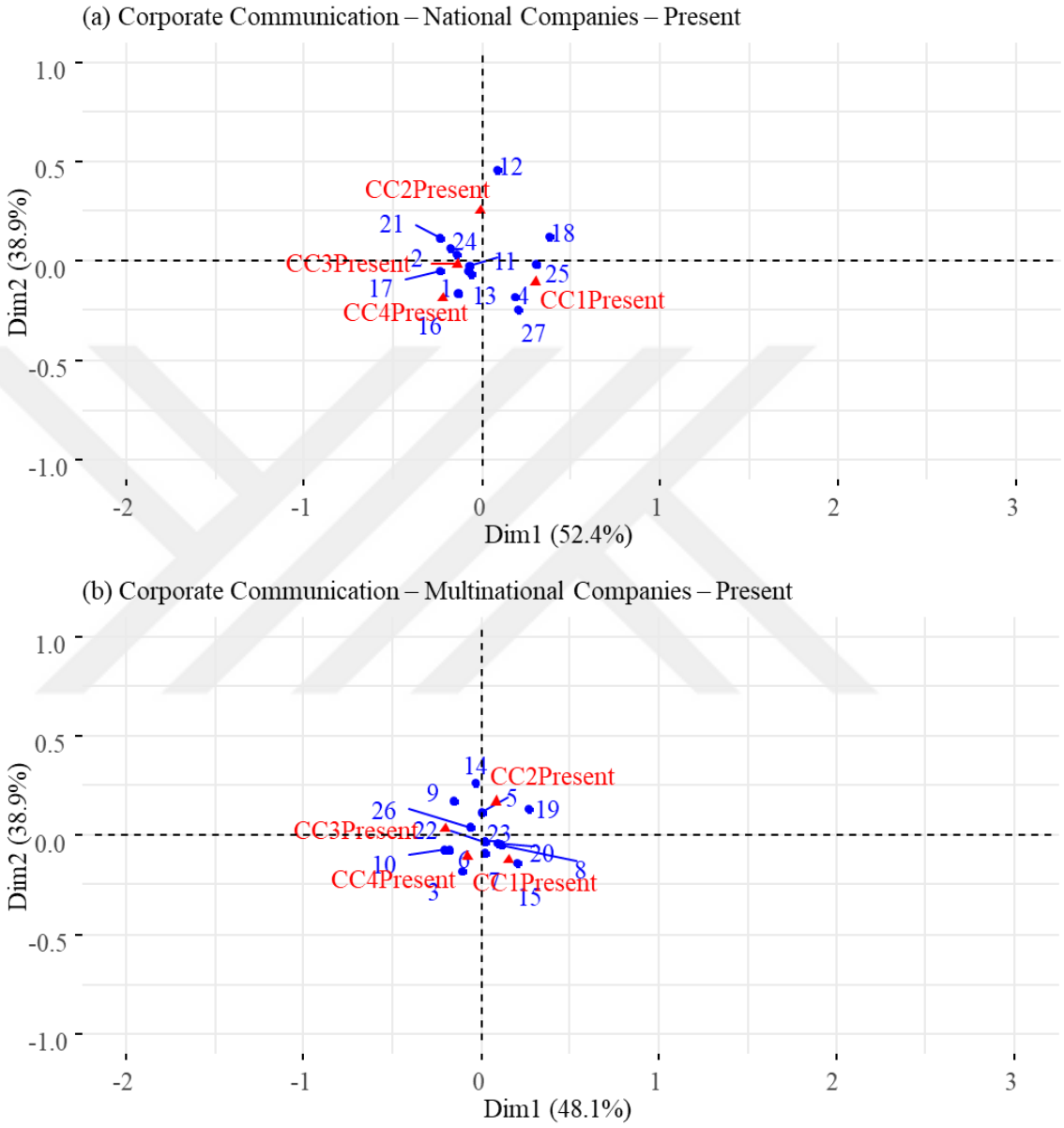


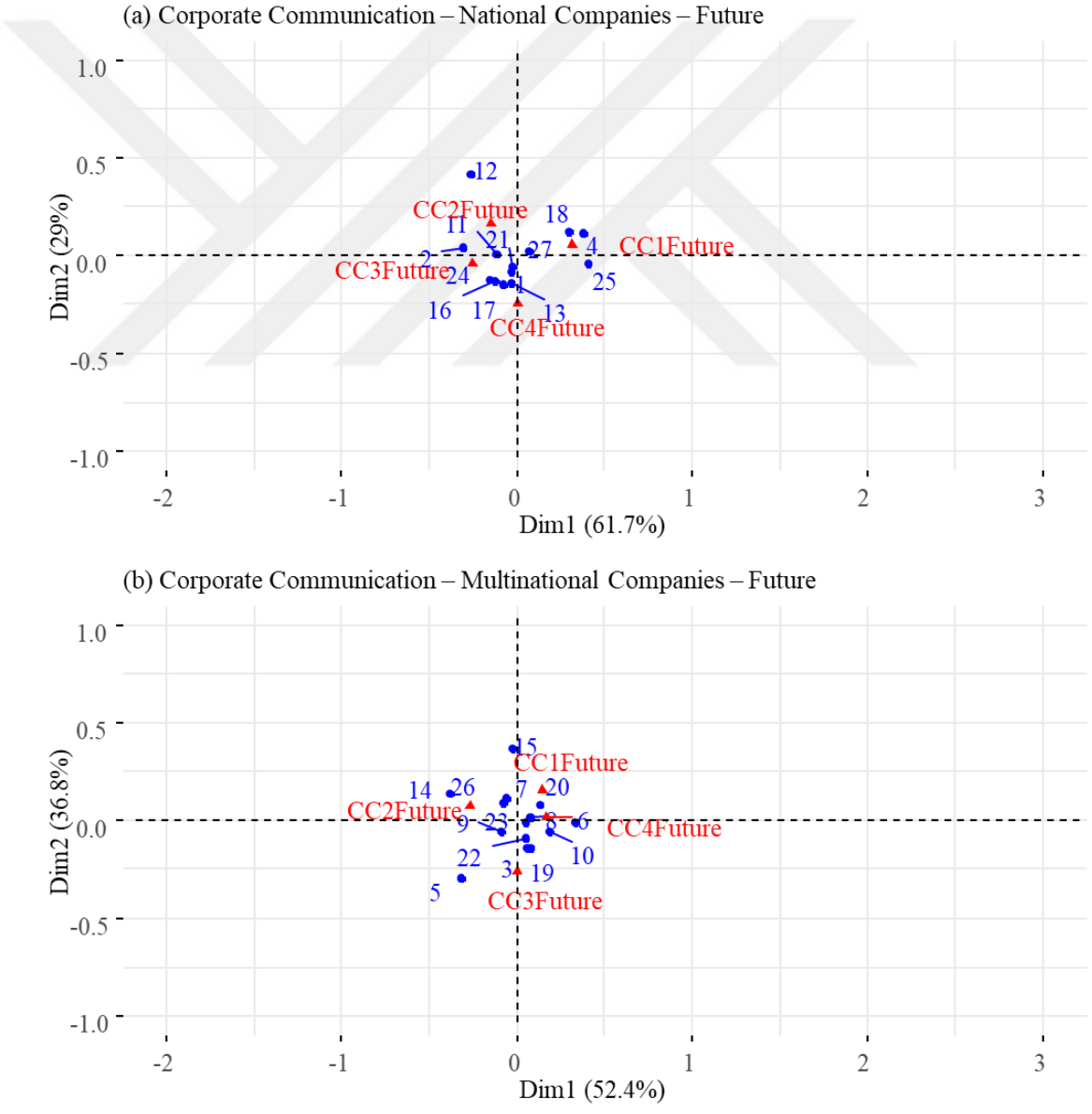
Figure 133 demonstrates national companies with biplot (a) and multinational companies with biplot (b). Assessments figure out the future expectations and foresights.

Biplot (a) of national companies presents that Dimension 1 has 61.7 %, Dimension 2 has 29 % explanatory power. Projections of profiles on Dimension 1

reflect that CC2, CC3 and CC4 are positioned closely to each other, while CC1 is differentiated in some degree. However, the general view is holistic.

Biplot (b) of multinational companies demonstrate that Dimension 1 has 52.4 %, Dimension 2 has 36.8 % explanatory power. Projections of the profiles on Dimension 1 and Dimension 2 indicate that sub-items are not differentiated to a large extent. It can be interpreted as respondents judge all items with similar scores and they have a holistic view on the composition of corporate communication for the future as it is in parallel with the assessments of present.

Figure 133: National vs. Multinational Companies – Future

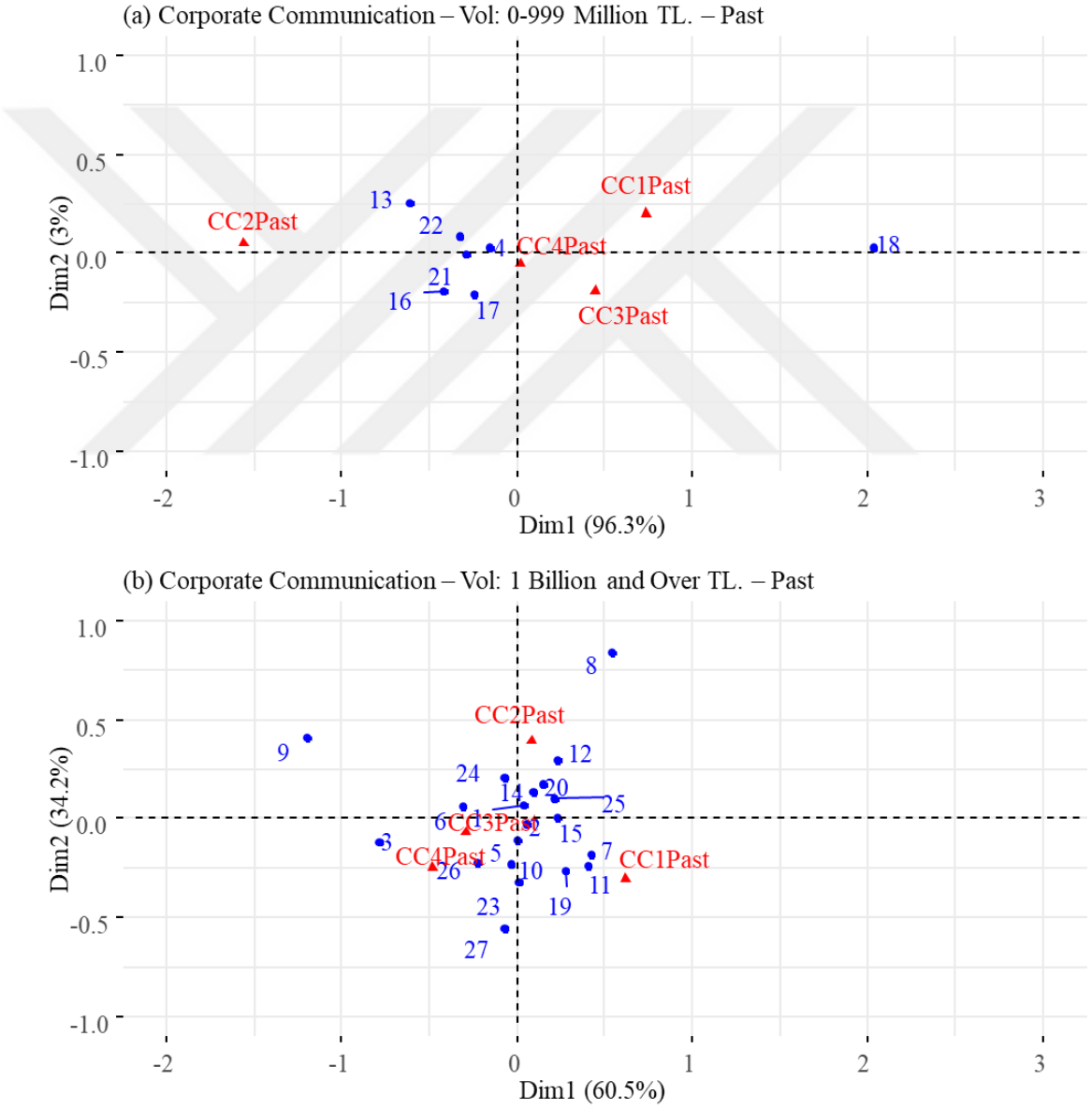


6.9.5. Assessments Related to Business Volume

In this section, the extent to which companies' judgements on improving corporate communication varies in regard to annual business volume.

Figure 134 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the past experiences.

Figure 134: Less Than 1 billion TL. vs. 1 billion and Over TL. – Past



Biplot (a) of Figure 134 has 99.3 % explanatory power in general; Dimension 1 has 96.3 %, Dimension 2 has 3 % explanatory power. It means that 96.3 % of the

display is explained on Dimension 1. Projections of profiles on Dimension 1 reflect that OC2 is situated away and differentiates. Company number 18 is the outlier.

Assessments of the companies with at least 1 billion TL. business volume as presented by biplot (b) indicate that Dimension 1 explains the 60.5 % of the model whereas Dimension 2 has 34.2 % explanatory power. Particularly, respondents' judgements for CC3 and CC4 are similar and closely positioned on Dimension 1. Differentiation can be interpreted for CC1 and CC2. Company number 8 and number 9 are the outliers.

Figure 135 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the current situation (present).

Biplot (a) of Figure 135 presents that Dimension 1 has 71.4 %, Dimension 2 has 19.7 % explanatory power. Projections of profiles on Dimension 1 reflect that CC2, CC3 and CC4 are positioned closely to each other, while CC1 is differentiated in some degree.

Assessments of the companies with at least 1 billion TL. business volume as presented by biplot (b) indicate that Dimension 1 has 46.3 %, Dimension 2 has 40.6 % explanatory power. Projections of the profiles on Dimension 1 and Dimension 2 indicate that sub-items are not differentiated to a large extent. Only CC1 has differentiation in some degree in terms of projections of profiles on Dimesnion 2. It can be interpreted as respondents judge all items with similar scores and they have a holistic view on the composition of corporate communication for present.

Figure 135: Less Than 1 billion TL. vs. 1 billion and Over TL. – Present

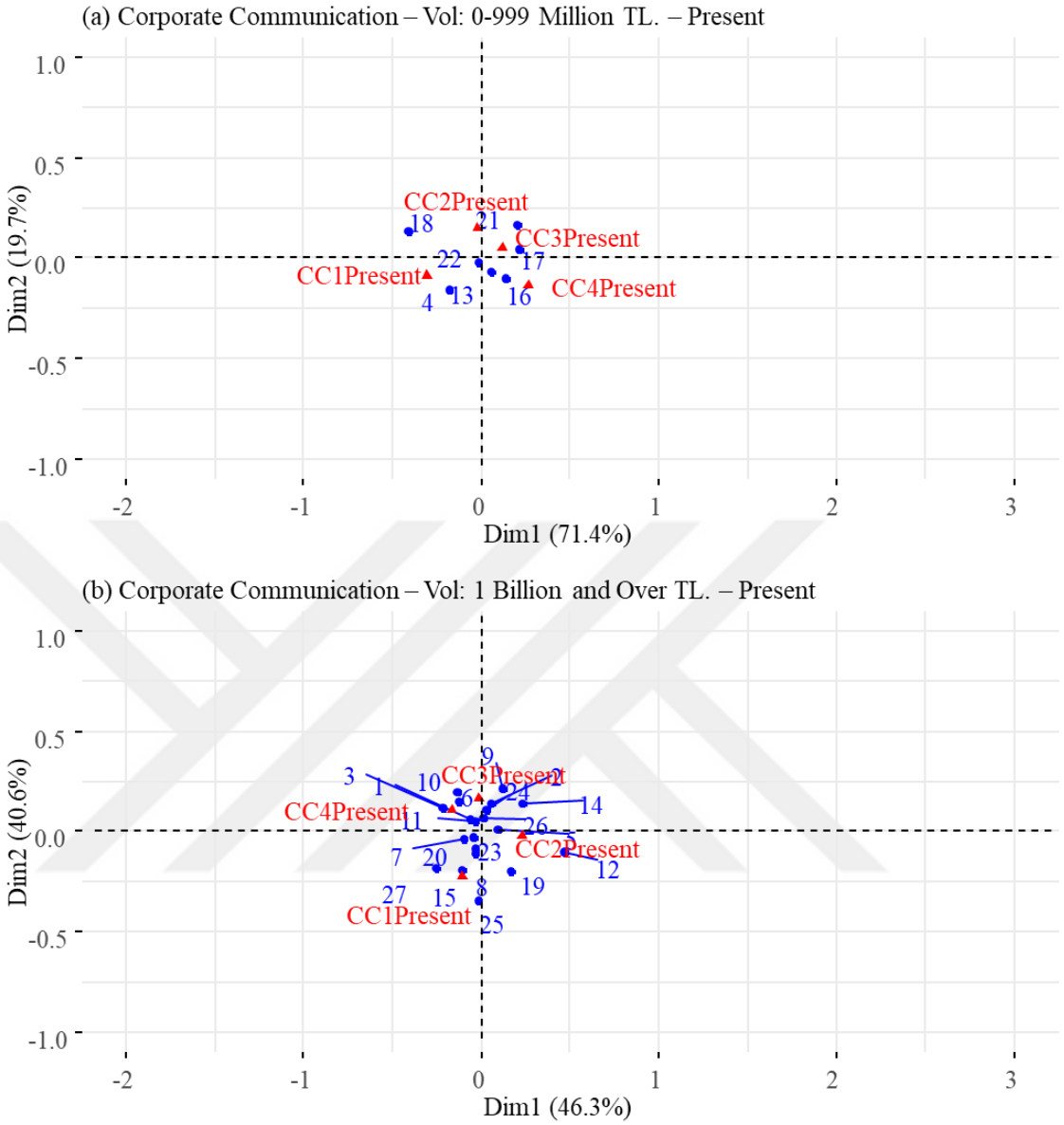
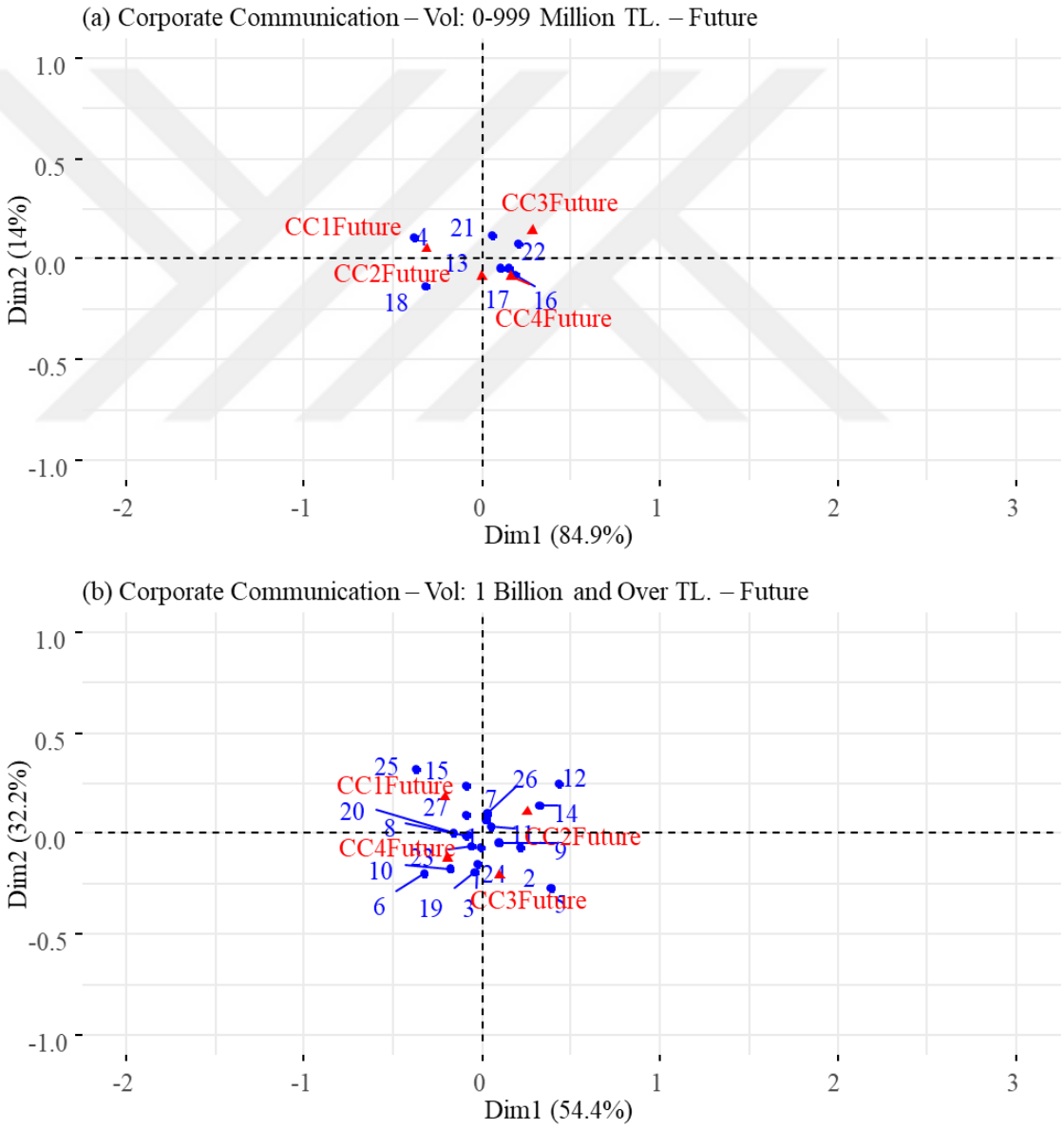


Figure 136 demonstrates companies with 0-999 million TL. annual business volume with biplot (a) and companies with at least 1 billion TL. annual business volume with biplot (b). Assessments figure out the future expectations and foresights.

Biplot (a) of Figure 136 presents that Dimension 1 has 84.9 %, Dimension 2 has 14 % explanatory power. Projections of the profiles on Dimension 1 and Dimension 2 indicate that sub-items are not differentiated to a large extent. It can be interpreted as respondents judge all items with similar scores and they have a holistic view on the composition of corporate communication for the future and this finding is in parallel with the assessments of present.

As for the assessments of the companies with at least 1 billion TL. business volume as presented by biplot (b) of Figure 136, Dimension 1 has 54.4 %, Dimension 2 has 32.2 % explanatory power. In parallel with the companies with less than 1 billion TL. annual business volume, projections of the profiles on Dimension 1 and Dimension 2 indicate that sub-items are not differentiated to a large extent. It can be interpreted as respondents judge all items with similar scores and they have a holistic view on the composition of corporate communication for the future.

Figure 136: Less Than 1 billion TL. vs. 1 billion and Over TL. – Future



CONCLUSIONS AND DISCUSSIONS

Corporate sustainability has developed since 1987 when the broader concept of sustainable development was firstly defined at global level by World Commission on Environment and Development. Despite the developments about sustainable development and corporate sustainability, some institutions disregard sustainability principles. The main reason of this attitude might probably be that those institutions do not understand or realize the beneficial strategic outcomes of corporate sustainability practices. However, many of the public and private institutions voluntarily recognize sustainability vision and engage in corporate sustainability at organizational level. Recent literature points to several factors that encourage organizations to transform from unsustainable to sustainable. The most frequently stated motivating factors for corporate sustainability practices are regulations, creating value, improving corporate reputation, lowering organizational costs, strengthening corporate communication, managing risks, alignment with business goals and corporate prioritization for sustainability. In detail, all of these factors are very complex and comprehensive. In other words, all of each concept has several components or dimensions in itself. However, the literature is blur whether the concept as a whole encourages corporate sustainability or a specific component within each concept is the pioneering element for sustainability practices. One of the main purposes of the current study is to fulfil this literature gap through exploring the composition of recognized corporate sustainability drivers' components. Further, the study also examines the composition of components by three different time dimension covering past experiences, assessments for the current situation, and the future expectations and foresights. Within the framework of this study, compositional data that was collected by survey method was analysed by using correspondence analysis via R software program and the findings revealed. Those findings comprise both general judgements for the composition of components and also comparative results generated by demographic differences.

According to the results of the correspondence analysis, among four components of value creation, judgements for the past and present reflect that corporate sustainability practices are carried out in order to increase corporate credibility, attract investors and financial authorities. It is expected for the future that, attracting investors will be the primary motivation for corporate sustainability

practices and secondly increasing brand value will be a dominant driving force. Further, respondents evaluate the components of strengthening value chain activities and attracting talented employees at the third place and with a similar level. These findings provide partial support for Hypothesis 1a.

In terms of demographic differences, four criteria have been analyzed within the scope of this thesis. These are sustainability reporting status (reporting vs not reporting), industry (manufacturing vs service), type (national vs multinational), and annual business volume (0-999 million TL.vs 1 billion TL. and over) of the companies.

Generally for value creation assessment, our findings reveal that results are categorized as investor-focused approach versus holistic approach. For instance, assessments of sustainability reporting companies indicate that all components of value creation are judged entirely with similar proportion. This is the holistic approach and the case is the same for the past, present and future assessments. On the other hand, attracting investors is a dominant component for not reporting companies for the past, present and the future. This is the investor-focused approach. Moreover, manufacturing sector supports investor-focused approach, while service sector reflects holistic approach. In addition, national companies prefer investor-focused approach, while multinational companies present holistic approach. Finally, companies that have 0-999 million TL. business volume adopt holistic approach whereas companies that have at least 1 billion TL. business volume consider investor-focused approach. In other words, demographic characteristics affect the composition of value creation components. These findings provide support for Hypothesis 1b.

In terms of the composition of corporate reputation components, corporate sustainability practices are carried out in order to enhance intangible resources for the past and the current situation is similar as well. It is expected for the future that, enhancing intangible resources will be the primary motivation for corporate sustainability practices, and secondly providing corporate reputation and maintaining competitive advantage will be a dominant driving force. In addition, the other two components, namely improving preferability of products and services, and improving customer loyalty have been scored similarly on the third place. These findings provide partial support for Hypothesis 2a.

Regarding to composition of corporate reputation components, sustainability reporting status affect the judgements in a similar way with the composition of value creation components. In other words, for corporate reputation, the results are categorized in two groups as in parallel with value creation. These are the holistic approach and resource based approach. Reporting companies recognize holistic approach for the past, present and future while not reporting companies evaluate from resource-based approach for the past, present and future.

As indicated from the results that demographic characteristics based on the industry affect the composition of the corporate reputation components. Accordingly, manufacturing sector reflects resource-based approach for the past and present. For the future expectations, in addition to the dominance of intangible assets, maintaining competitive advantage is also foreseen as a driver for corporate sustainability by manufacturing sector. Assessments of the service sector indicate that composition of corporate reputation components are dominated by enhancing intangible resources, and improving preferability of products and services for the past, present and future.

National and multinational companies view the components of corporate reputation differently as well. Although both of their assessments for the past and current situation reflect the resource-based approach, there are some differences for the future expectations. National companies state customer loyalty in addition to enhancing intangible assets as a driving force. On the other side, multinational companies point to providing and maintaining competitive advantage in addition to enhancing intangible assets.

Business volume generates judgement differences for the composition of corporate reputation as well. Findings indicate that companies with 0-999 million TL. annual business volume have the same assessment with national companies. They reflect a focus for enhancing intangible assets and improving customer loyalty in terms of past, present and future assessments. On the other side, companies with at least 1 billion TL. annual business volume evaluate the composition of corporate reputation in parallel with multinational companies. Accordingly, providing and maintaining competitive advantage in addition to enhancing intangible assets were, are and will be driving forces for corporate sustainability practices.

These findings provide support for Hypothesis 2b.

Further, the composition of business goals aligned with organizational objectives in terms of corporate sustainability have been analyzed. Business goals are determined as improving organizational efficiency, providing new growth opportunities, strengthening competitive position, and maintaining ethical practices. For business goals, strengthening competitive position is dominant for the past experiences. However, respondents judge the components for present and future with a holistic approach. Accordingly, all of these components are evaluated by similar proportions. This result can be interpreted as stated components encourage companies in order to engage in corporate sustainability practices. These findings provide partial support for Hypothesis 3a.

In terms of reporting companies' past assessments, maintaining ethical practices dominates the composition whereas not reporting companies' past assessments focus on providing new growth opportunities. As for the present and future assessments, both reporting and not reporting companies view business goals in a more holistic manner.

Industry characteristics of companies affect the composition of business goals as well. For the past and present assessments, manufacturing sector presents a holistic approach while service sector dominates strengthening competitive position. As for the future expectations, manufacturing sector judges the components similarly, whereas service sector indicates the dominance of strengthening competitive position in parallel with the past and present.

Findings for the national and multinational companies indicate that national companies reflect a holistic view for the past while multinational companies focus on maintaining ethical practices. For present assessments both national and multinational companies dominate strengthening competitive position. As for the future expectations and foresights, both of them agree on the holistic approach in terms of the composition of business goals.

Regarding to business volume characteristics, two groups present different judgements. For instance, companies with 0-999 million TL. business volume evaluate that improving organizational efficiency and providing new growth opportunities are dominant, while companies at least 1 billion TL. business volume, dominate strengthening competitive position, and maintaining ethical practices for the past. For present assessments, companies with 0-999 million TL. business

volume differentiate strengthening competitive position. On the other side, companies at least 1 billion TL. business volume point to a domination for maintaining ethical practices. In terms of the future expectations and foresights, these two groups of companies specify different components. Companies with 0-999 million TL. business volume focus on providing new growth opportunities, while companies at least 1 billion TL. business volume reflect the holistic approach.

These findings provide support for Hypothesis 3b.

In terms of the composition of regulations, respondents present the holistic approach for the past and future. In other words, environmental regulations, social regulations, industry standards and international regulations are positioned with similar proportions. However, industry standards are indicated as the main driver for corporate sustainability practices in the current situation. These findings provide partial support for Hypothesis 4a.

Regarding to the composition of regulation components, sustainability reporting status affects the judgements. Reporting companies indicate the dominance of international regulations in the past while not reporting companies present the holistic approach. In the current situation, judgements of reporting companies shift to a more holistic view and not reporting companies focus on the industry standards. For the future expectations, both reporting and not reporting companies judge the composition of all regulation components as drivers for corporate sustainability practices.

Findings reveal that industry characteristics of companies do not affect the composition of regulations in the assessments of the past. Both manufacturing and service sector reflect the holistic approach for the past. For current situation and future expectations, manufacturing sector dominates industry standards, while service sector have the holistic approach.

In terms of the type of the companies, national companies specify industry standards for the past and present assessments. For the future, national companies point to the holistic approach. On the other side, multinational companies indicate international and social regulations for the past, a holistic approach for present and focus on industry standards for the future assessments.

Judgements related to business volume have some differences for the past present and future. Companies that have less than 1 billion TL. business volume reflect environmental regulations have dominance in some degree while companies with at least 1 billion TL. business volume dominate international regulations for the past. In the current situation, industry standards are stated by the companies that have less than 1 billion TL. business volume, while other companies have the holistic approach. For the future, companies that have less than 1 billion TL. business volume present the holistic approach, but other companies focus on international regulations.

These findings provide support for Hypothesis 4b.

Composition of risk management components for corporate sustainability change by different time dimensions. Specifically, tested components are reducing financial risks by providing corporate transparency, reducing environmental risks through understanding environmental resource constraints, reducing social risks through respecting for human rights, equal opportunity, equal pay, non-discrimination, and reducing the risk of entering new markets. In general, reducing financial risks dominates the model of the past. Present assessments point to the holistic approach. For future expectations, reducing social risks is dominant. These findings provide support for Hypothesis 5a.

According to the results related with sustainability reporting status, both reporting and not reporting companies focus on reducing financial risks by providing corporate transparency for the past. For present, reporting companies point to reducing the risk of entering new markets, while not reporting companies show the holistic approach. For future expectations, reporting companies do not state a specific component, but not reporting companies indicate reducing social risks.

Industry characteristics generate differences of judgements as well. For the past, manufacturing sector state the domination of reducing financial and environmental risks, but for present and future, their view becomes more holistic. Service sector, presents the holistic approach for the past and current situation, but dominates the reducing the risk of entering new markets for the future.

In terms of the type of the companies, national companies reflect that reducing financial risks and the risk of entering new markets are dominant components for the past. They have a more holistic approach for present and future.

On the other side, multinational companies differentiate only reducing financial risks for the past. Their view is also more holistic for present in parallel with national companies. However, for future expectations, reducing the risk of entering new markets is dominant for multinational companies.

Assessments related to business volume have some differences for present and future. For the past, both groups indicate reducing financial risks. However, for present, companies that have less than 1 billion TL. business volume have the holistic approach while companies at least 1 billion TL. business volume indicate reducing social risks. As for the future expectations, assessments get closer to the holistic approach.

These findings provide support for Hypothesis 5b.

In terms of the composition of corporate prioritization components; corporate strategy, top management's priority, leadership's personal interest, advices of the consulting firms are evaluated. Results indicate that the composition of corporate prioritization components in terms of corporate sustainability practices vary according to the past, present and future. For the past, leadership's personal interest and advices of the consulting firms are the main drivers for corporate sustainability practices. For present, corporate strategy is dominant. As for the future expectations, top management's priority for corporate sustainability seems to be differentiated. These findings provide support for Hypothesis 6a.

Findings for reporting companies indicate that leadership's personal interest and advices of the consulting firms are the main drivers for the past. On the other hand, not reporting companies present the holistic approach. For current situation, reporting companies point to advices of the consulting firms, while not reporting companies focus on corporate strategy. As for the future expectations, reporting companies differentiate advices of the consulting firms in parallel with the present assessments, but not reporting companies indicate both corporate strategy and advices of the consulting firms.

In terms of industrial characteristics, manufacturing sector states leadership's personal interest and advices of the consulting firms for the past, present and future. On the other side, service sector points to corporate strategy for the past and present, and leadership's personal interest for the future.

In regard to the type of the companies, national companies reflect leadership's personal interest while multinational companies indicate corporate strategy for the past assessments. For present, evaluation of national companies shifts to advices of the consulting firms, but there is no change in multinational companies' judgement. For future expectations, composition of components gets closer for national companies. On the other side, multinational companies indicate leadership's personal interest and advices of the consulting firms for the future.

Assessments related to business volume have some differences as well. For the past, companies that have less than 1 billion TL. business volume have the holistic approach while companies that have at least 1 billion TL. business volume indicate leadership's personal interest. For present, companies that have less than 1 billion TL. business volume have the holistic approach in parallel with the past, but other companies focus on advices of the consulting firms. As for the future expectations, assessments get closer to the holistic approach for both of two groups.

These findings provide support for Hypothesis 6b.

Another concern is about the composition of components for reducing organizational costs in terms of corporate sustainability practices. These practices include cost cutting efforts through increasing recycled material used in production, increasing water conservation, increasing energy saving and waste management. Results indicate that increasing water conservation is the main driver among other components for corporate sustainability by the past, present and future. These findings do not provide support for Hypothesis 7a.

Findings for reporting companies indicate that increasing recycled material used in production and waste management are the main drivers for the past. On the other hand, not reporting companies dominate increasing water conservation. For current situation, reporting companies present the holistic approach, while not reporting companies state increasing water conservation in parallel with the past assessments. The findings for present are similar to the future assessments as well.

In terms of industrial characteristics, manufacturing sector states increasing water conservation for the past, present and future. Service sector has a more holistic approach for the past, but reflect a dominance of increasing recycled material used in production, and increasing energy saving for present. As for the future, contrary to manufacturing sector, service sector indicates waste management.

In regard to the type of the companies, national companies reflect increasing water conservation, while multinational companies indicate increasing recycled material used in production and waste management for the past. For present, the assessments of national companies are the same with the past and multinational companies point to waste management again. As for the future, national companies do not change their view, but the judgement of multinational companies shift to the holistic approach.

Assessments related to business volume have some differences as well. For the past, present and future, companies that have less than 1 billion TL. business volume indicate water conservation while companies that have at least 1 billion TL. business volume indicate waste management.

These findings provide support for Hypothesis 7b.

Finally, the composition of corporate communication components in terms of corporate sustainability practices is analyzed. In this regard, publishing a sustainability section on corporate website, sustainability reporting, membership to sustainability organizations, and participating in sustainability rankings are determined as components.

Findings indicate that, sustainability reporting is the main driver for the past. For present and future, in addition to sustainability reporting, publishing a sustainability section on corporate website is judged as a dominant component that improve corporate communication in terms of corporate sustainability. These findings provide partial support for Hypothesis 8a.

Results for reporting companies indicate publishing a sustainability section on corporate website while not reporting companies point to sustainability reporting for the past. Moreover, for present judgements and future expectations of both groups get closer to the holistic approach.

In terms of industrial characteristics, manufacturing sector states publishing a sustainability section on corporate website and sustainability reporting, while service sector remarks membership to sustainability organizations for the past. For present, manufacturing sector has the holistic approach, but service sector is in parallel with its assessments for the past. As for the future, both sectors shift to the holistic approach.

In regard to the type of the companies, national companies reflect sustainability reporting, while multinational companies indicate publishing a sustainability section on corporate website and sustainability reporting for the past. For present, the assessments of national companies are dominated by publishing a sustainability section on corporate website and sustainability reporting. On the other side, multinational companies present the holistic approach. As for the future, the judgements of both national and multinational companies shift to the holistic approach.

Assessments related to business volume have some differences as well. For the past, companies that have less than 1 billion TL. business volume indicate sustainability reporting while companies that have at least 1 billion TL. business volume state publishing a sustainability section on corporate website, and sustainability reporting. For present, the judgements of companies with 0-999 million TL. business volume gets closer to the holistic approach whereas other companies have the holistic approach as well. As for the future, the judgements of both group of companies shift to the holistic approach.

These findings provide support for Hypothesis 8b.

Consequently, significant findings have been gathered after testing the research hypotheses. The composition of creating value, improving corporate reputation, alignment with business goals, complying with regulations, managing risks, organizational priorities, lowering organizational costs and improving corporate communication in terms of corporate sustainability practices are investigated in detail. Differences of judgements in regard to past experiences, present situation and future expectations on the composition of components are specified. Further, variations generated from demographic characteristics are presented with comparisons. Hence, current study is very comprehensive and has both theoretical and practical contributions.

Theoretically, this study sheds light to a field that has not been studied before. Until now, strategic drivers of corporate sustainability have not been studied with their complementary components. In other words, for the first time, composition of the corporate sustainability drivers' components were analyzed taking into account the time dimensions and demographic differences. In this respect, this comprehensive study presents an important contribution to literature.

The measurement instrument used for this study has been developed by the researchers for the first time. Taking into account that there are only few measurement instruments in the field of corporate sustainability, this contribution is valuable for researchers. In addition, methodology (co.ca package in R) applied for testing hypotheses is also new and developed by the researchers since there was no software to analyze compositional data in correspondence analysis before than this current study. By this method, researchers can be able to make correspondence analysis with compositional data. Before then, correspondence analysis could only be conducted with categorical and count data. Therefore, a new research method is brought to the literature as well. It is also aimed to serve the co.ca package freely distributable. By that time, researchers who want to utilize this software can contact with the researchers of this thesis.

In terms of managerial implications, presented comparisons related with demographic characteristics can be utilized by executives and sustainability practitioners for benchmarking and future planning. For instance, as the findings revealed that sustainability reporting companies and not reporting companies have different views for most of the components of drivers. It might be concluded that sustainability reporting process has an impact on the judgements of the companies, so that taking into account of the judgements of sustainability reporting companies, not reporting companies can predict the potential shift on vision when the sustainability reporting starts. Accordingly, organizational changes can be managed in accordance with the requirements. Consequently, all information gathered in the developing field of corporate sustainability will contribute positively to both organizational transformation process from unsustainable to sustainable and the improvement of sustainability performance.

Besides these strengths, there are also some limitations of the study. We have conducted our research in the framework of the most frequently stated corporate sustainability drivers in literature and four components determined for each driver. Other presumable drivers or components are out of the scope of this study. In addition, the measurement instrument is applied for the first time for this research. Although compositional data is not eligible for the test of internal validity, mutual contact of researchers with the respondents during the data collection process has contributed to internal validity of the scale. In terms of external validity, it will be confirmed when the scale is used as a measurement instrument for future studies.

Due to the purposes of the research and the type of the data, our sample size could not be pretty large (126 individuals representing 27 companies). Although the ultimate aim was the participation of at least five employees from each company in data collection process, we could not get five respondents from each company. As a result, outliers were encountered in some findings. Finally, demographic information is a broad concept. In this research, we focused on four demographics including sustainability reporting status, industry, type and business volume of the companies. For future research, this measurement instrument and research methodology can be used for several studies. Furthermore, different demographic characteristics might be considered as well.

REFERENCES

Adeosun, L. P. K., & Ganiyu, R. A. (2013). Corporate reputation as a strategic asset. *International journal of Business and Social science*, *4*(2), 220-225.

Aktas, R., Kayalidere, K., & Kargin, M. (2013). Corporate sustainability reporting and analysis of sustainability reports in Turkey. *International Journal of Economics and Finance*, *5*(3), 113.

Altuntaş, C. & Türker, D. (2012). Sürdürülebilir Tedarik Zincirleri: Sürdürülebilirlik Raporlarının İçerik Analizi. *Dokuz Eylül University Journal of Graduate School of Social Sciences*, *14*(3), 39-64.

Alvesson, M. (1998). The business concept as a symbol. *International Studies of Management & Organization*, *28*(3), 86-108.

Ameer, R., & Othman, R. (2012). Sustainability practices and corporate financial performance: A study based on the top global corporations. *Journal of Business Ethics*, *108*(1), 61-79.

Angiel, J., & Angiel, P. J. (2015). Perception of River Value in Education for Sustainable Development (The Vistula River, Poland). *Sustainable Development*, *23*(3), 188-201.

Annan, K. (2000). We, the Peoples: The Role of the United Nations in the 21st Century. New York: United Nations. Retrieved March 17, 2017, from http://www.un.org/en/events/pastevents/pdfs/We_The_Peoples.pdf.

Antolin-Lopez, R., Delgado-Ceballos, J., & Montiel, I. (2016). Deconstructing corporate sustainability: a comparison of different stakeholder metrics. *Journal of Cleaner Production*, *136*, 5-17.

Aras, G., & Crowther, D. (2009). Corporate sustainability reporting: a study in disingenuity?. *Journal of business ethics*, *87*(1), 279-288.

Aras, G., & Crowther, D. (2010). Sustaining business excellence. *Total Quality Management*, *21*(5), 565-576.

Arlow, P., & Gannon, M. J. (1982). Social responsiveness, corporate structure, and economic performance. *Academy of Management Review*, *7*(2), 235-241.

Artiach, T., Lee, D., Nelson, D., & Walker, J. (2010). The determinants of corporate sustainability performance. *Accounting & Finance*, *50*(1), 31-51.

AtKisson, A. (1996). Developing indicators of sustainable community: lessons from sustainable Seattle. *Environmental Impact Assessment Review*, *16*(4), 337-350.

Aupperle, K. E., Carroll, A. B., & Hatfield, J. D. (1985). An empirical examination of the relationship between corporate social responsibility and profitability. *Academy of management Journal*, *28*(2), 446-463.

Aven, T., & Renn, O. (2009). On risk defined as an event where the outcome is uncertain. *Journal of risk research*, *12*(1), 1-11.

Azapagic, A., & Perdan, S. (2000). Indicators of sustainable development for industry: a general framework. *Process Safety and Environmental Protection*, *78*(4), 243-261.

Baechler, N. (2016). Does Sustainable Development Make Good Strategies for Corporate Actors? *Marmara Üniversitesi İktisadi ve İdari Bilimler Dergisi, 38* (1), 57-72

Barber, William J. (1967). *A History of Economic Thought*. London: Penguin.

Barnett, M. L. (2016). The Business Case for CSR: A Critique and an Indirect Path Forward. *Business & Society (forthcoming)*.

Barnett, M. L., Jermier, J. M. & Lafferty, B. A. (2006). Corporate Reputation: The Definitional Landscape. *Corporate Reputation Review*, *9*(1), 26-38.

Bansal, P. (2002). The corporate challenges of sustainable development. *The Academy of Management Executive*, *16*(2), 122-131.

Bansal, P. (2005). Evolving sustainably: A longitudinal study of corporate sustainable development. *Strategic management journal*, *26*(3), 197-218.

Bansal, P., & Clelland, I. (2004). Talking trash: Legitimacy, impression management, and unsystematic risk in the context of the natural environment. *Academy of Management Journal*, *47*(1), 93-103.

Bansal, P., & Roth, K. (2000). Why companies go green: A model of ecological responsiveness. *Academy of management journal*, *43*(4), 717-736.

Barca, M. (2005). Stratejik Yönetim Düşüncesinin Evrimi: Bilimsel Bir Disiplinin Oluşum Hikayesi. *Journal of Management Research/Yonetim Arastirmalari Dergisi*, *5*(1), 7-38.

Barca, M. (2009). Stratejik yönetim düşüncesinin gelişimi. *Ankara Sanayi Odası Medya*, (4/5/6), 34-52.

Barnett, M. L., Jermier, J. M., & Lafferty, B. A. (2006). Corporate reputation: The definitional landscape. *Corporate reputation review*, *9*(1), 26-38.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, *17*(1), 99-120.

Bartel, W., Fogelberg, T., Hoballah, A. & van der Lugt, C.T. (2016) Carrots & Sticks: Global trends in sustainability reporting regulation and policy. Retrieved 08.11.2016, from https://assets.kpmg.com/content/dam/kpmg/pdf/2016/05/carrots-and-sticks-may-2016.pdf.

Baumgartner, R. J., & Ebner, D. (2010). Corporate sustainability strategies: sustainability profiles and maturity levels. *Sustainable Development*, *18*(2), 76-89.

Becchetti, L., Di Giacomo, S., & Pinnacchio, D. (2008). Corporate social responsibility and corporate performance: evidence from a panel of US listed companies. *Applied Economics*, *40*(5), 541-567.

Bendixen, M. (1996). A practical guide to the use of correspondence analysis in marketing research. *Marketing Research On-Line*, *1*(1), 16-36.

Benn, S., Dunphy, D., & Griffiths, A. (2006). Enabling change for corporate sustainability: An integrated perspective. *Australasian Journal of Environmental Management*, *13*(3), 156-165.

Bertels, S., Papania, L. & Papania, D. (2010). *Embedding sustainability in organizational culture. A systematic review of the body of knowledge*. Canada: Network for Business Sustainability, London.

Bloom, M.,& Milkovich, G. T. (1998). Relationships among risk, incentive pay, and organizational performance. *Academy of Management Journal*, *41*(3), 283-297.

Blum-Kusterer, M., & Hussain, S. S. (2001). Innovation and corporate sustainability: An investigation into the process of change in the pharmaceuticals industry. *Business strategy and the environment*, *10*(5), 300-316.

Boas, I., Biermann, F., & Kanie, N. (2016). Cross-sectoral strategies in global sustainability governance: towards a nexus approach. *International Environmental Agreements: Politics, Law and Economics*, *16*(3), 449-464.

Bonifant, B. C., Arnold, M. B., & Long, F. J. (1995). Gaining competitive advantage through environmental investments. *Business Horizons*, *38*(4), 37-47.

Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (241–258). New York: Greenwood.

Bowman, E. H., & Helfat, C. E. (2001). Does corporate strategy matter?. *Strategic Management Journal*, *22*, 1-23.

Brown, T. J., & Cox, E. L. (1997). Part II: Where Do Reputations Come From?: Corporate Associations in Marketing and Consumer Research: A Review. *Corporate Reputation Review*, *1*(1), 34-38.

Budak, G. & Budak, G. (2004). *İşletme Yönetimi*. İzmir: Fakülteler Kitabevi Barış Yayınları.

Bulldog Reporter (2016). CSR's Mainstream Shift: 81% of Leading Companies Published Corporate Sustainability Reports in 2015. Retrieved April 21, 2017, from https://www.bulldogreporter.com/csrs-mainstream-shift-81-of-leading-companies-published-corporate-sustainability-reports-in-2015/.

Callens, I., & Tyteca, D. (1999). Towards indicators of sustainable development for firms: a productive efficiency perspective. *Ecological Economics*, *28*(1), 41-53.

Cameron, K. S. & Quinn, R. E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework*. San Francisco: John Wiley & Sons.

Carpenter, M. A. & Sanders, Wm. G. (2007). *Strategic Management A Dynamic Perspective*. New Jersey: Pearson.

Carroll, A. B. (1979). A three-dimensional conceptual model of corporate performance. *Academy of management review*, *4*(4), 497-505.

Carter, C. R., Kale, R., & Grimm, C. M. (2000). Environmental purchasing and firm performance: an empirical investigation. *Transportation Research Part E: Logistics and Transportation Review*, *36*(3), 219-228.

Carbon Disclosure Project – CDP (2017). What we do. Retrieved January 7, 2017, from https://www.cdp.net/en/info/about-us.

Christmann, P. (2000). Effects of "best practices" of environmental management on cost advantage: The role of complementary assets. *Academy of Management journal*, *43*(4), 663-680.

Chun, R. (2005). Corporate reputation: Meaning and measurement. *International Journal of Management Reviews*, *7*(2), 91-109.

Clark, W. C., Crutzen, P. J., & Schellnhuber, H. J. (2005). Science for global sustainability: Toward a new paradigm. Harvard University, John F. Kennedy School of Government Faculty Research Working Papers Series, March, 2005.

Clarkson, M. E. (1995). A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of management review*, *20*(1), 92-117.

Collins, E., Lawrence, S., Pavlovich, K., & Ryan, C. (2007). Business networks and the uptake of sustainability practices: the case of New Zealand. *Journal of Cleaner Production*, *15*(8), 729-740.

Cornelissen, J. (2014). *Corporate communication: A guide to theory and practice*. Sage Publications: London, Thousand Oaks: New Delhi.

Crane, A. (2000). Corporate greening as amoralization. *Organization Studies*, *21*(4), 673-696.

CSR's Mainstream Shift: 81% of Leading Companies Published Corporate Sustainability Reports in 2015 (n.d.). Retrieved December 7, 2016, from https://www.bulldogreporter.com/csrs-mainstream-shift-81-of-leading-companies-published-corporate-sustainability-reports-in-2015/

Daily, B. F., & Huang, S. C. (2001). Achieving sustainability through attention to human resource factors in environmental management. *International Journal of operations & production management*, *21*(12), 1539-1552.

Dalton, J. Croft, S. (2003). *Managing Corporate Reputation: The New Currency*. London: Thorogood Proffessional Insights.

Daub, C. H. (2007). Assessing the quality of sustainability reporting: an alternative methodological approach. *Journal of Cleaner Production*, *15*(1), 75-85.

David, F. R. (2003). *Strategic Management: Concepts & Cases* (International Edition, 9th Edition). New Jersey: Prentice Hall Pearson Education International.

De Colle, S., & Gonella, C. (2002). The social and ethical alchemy: an integrative approach to social and ethical accountability. *Business Ethics: A European Review*, *11*(1), 86-96.

De Woot, P. (1970). *Strategie et Management*. Dunod.

Dechant, K. and Altman, B. (1994) Environmental leadership: From compliance to competitive advantage. *Academy of Management Executive* 8(3), 7–27.

Dereköy, F. (2015). Kurumsal yönetim ve temel dinamikleri. *Muğla Sıtkı Koçman Üniversitesi İktisadi ve İdari Bilimler Fakültesi Ekonomi ve Yönetim Araştirmaları Dergisi*, *4*(1), 31-51.

Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The accounting review*, *86*(1), 59-100.

Diesendorf, M. (2000). Sustainability and sustainable development. *Sustainability: The corporate challenge of the 21st century*, *2*, 19-37.

Dinçer, Ö. (1998). *Stratejik Yönetim ve İşletme Politikası*. İstanbul: Beta Yayınları.

Dirlik, A. (1994). The postcolonial aura: Third World criticism in the age of global capitalism. *Critical inquiry*, *20*(2), 328-356.

Donaldson T, & Preston L.E. (1995). The stakeholder theory of the corporation: concepts, evidence, and implications. *The Academy of Management Review* 20(1): 65–91.

Dunphy, D. C., Griffiths, A., & Benn, S. (2003). *Organizational change for corporate sustainability: A guide for leaders and change agents of the future*. London: Routledge.

Dyson, R. G. (2004). Strategic development and SWOT analysis at the University of Warwick. *European journal of operational research*, *152*(3), 631-640.

Eisses, M. T. (2017). *The effect of corporate ethics on corporate financial performance focussing on internal stakeholders*. Unpublished Master Thesis, Uppsala University.

Elkington J. (1994). Towards the sustainable corporation: win–win–win business strategies for sustainable development. *California Management Review* 36(2): 90–100.

Elkington, J. (2004). Enter the triple bottom line. *The triple bottom line: Does it all add up*, *11*(12), 1-16.

Eren, E. (2010). *Stratejik Yönetim ve İşletme Politikası* (8th Edition). İstanbul: Beta Basım Yayın Dağıtım A.Ş.

Ernst &Young (2013). Türkiye Finansal Raporlama Standartları'na (TFRS) Hazır mısınız? Retrieved November 20, 2016, from http://www.ey.com/Publication/vwLUAssets/TFRS_brosuru/$FILE/Finansal%20Muhasebe%20Danışmanlık%20Hizmetleri%20(FAAS)%20-%20TFRS'ye%20hazır%20mısınız.pdf.

Eryılmaz, B., & Biricikoğlu, H. (2011). Kamu yönetiminde hesap verebilirlik ve etik. *İş Ahlakı Dergisi*, *4*(7), 19-45.

Fărcaş, T. V. (2015). The Development of Corporate Reporting over Time: From a Traditional System to an Integrated System. *Audit Financiar*, *13*(124).106-113

Freeman RE. 1984. *Strategic Management: a Stakeholder Approach*. Pitman: Boston, MA.

Figge, F., Hahn, T., Schaltegger, S., & Wagner, M. (2002). The sustainability balanced scorecard–linking sustainability management to business strategy.*Business strategy and the Environment*, *11*(5), 269-284.

Fleming, A. K. (2014). Archaeology and economic development: Commitment and support from the World Bank Group. *Public Archaeology*, *13*(1-3), 135-150.

Fombrun, C.J. (1996). *Reputation: Realizing Value from the Corporate Image*. Boston: Harvard Business School Press.

Fombrun, C., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy of management Journal*, *33*(2), 233-258.

Fombrun, C., & Van Riel, C. (1997). The reputational landscape. *Corporate reputation review*, *1*(1-2), 1-16.

Gabrusewicz, T. (2013). Sustainability accounting–definition and trends. *Prace Naukowe Uniwersytetu Ekonomicznego We Wrocławiu: Research Papers Of Wrocław University of Economics*, (302), 37-46.

Gallego, I. (2006). The use of economic, social and environmental indicators as a measure of sustainable development in Spain. *Corporate Social Responsibility and Environmental Management*, *13*(2), 78-97.

Giddens, A. (2014). *Kapitalizm ve Modern Sosyal Teori: Marx, Durkheim ve Max Weber'in Çalışmalarının Bir Analizi.* (Ü. Tatlıcan, Trans.). İstanbul: İletişim Yayınları (Original work published 1971).

Giddings, B., Hopwood, B., & O'brien, G. (2002). Environment, economy and society: fitting them together into sustainable development. *Sustainable development*, *10*(4), 187-196.

Gladwin, T. N., Kennelly, J. J., & Krause, T. S. (1995). Shifting paradigms for sustainable development: Implications for management theory and research. *Academy of management Review*, *20*(4), 874-907.

Godemann, J., & Michelsen, G. (Eds.) (2011). *Sustainability communication–an introduction*, Netherlands: Springer.

Gotsi, M., & Wilson, A. M. (2001). Corporate reputation: seeking a definition. *Corporate Communications: An International Journal*, *6*(1), 24-37.

Gönel, F. D. (n.d.). *Globalleşen Dünyada (Nasil Bir) Sürdürülebilir Kalkinma*. Retrieved 26.02.2016, from www.yildiz.edu.tr/~gonel/akademikdosyalari/.../globallesendunya.pdf

Grant, R. M. (1991). The resource-based theory of competitive advantage: implications for strategy formulation. *California management review*, *33*(3), 114-135.

Gray, R. (2000). Current developments and trends in social and environmental auditing, reporting and attestation: a review and comment. *International Journal of Auditing*, *4*(3), 247-268.

Greenacre, M. (2010). Log-ratio analysis is a limiting case of correspondence analysis. *Mathematical Geosciences*, *42*(1), 129-134.

Greenacre, M. (2017). *Correspondence analysis in practice* (3rd Edition). CRC press.

Global Reporting Initiative - GRI Sürdürülebilirlik Raporlaması Kılavuzları (2014). G4 Uygulama El Kitabı. Retrieved August 20, 2016, from https://www.globalreporting.org/resourcelibrary/Turkish-G4-Part-Two.pdf

Global Reporting Initiative - GRI (2016). Benefits of Reporting. Retrieved November 07, 2016, from https://www.globalreporting.org/information/sustainability-reporting/Pages/reporting-benefits.aspx

Griffin, J. J., Mahon, J. F. (1997). The corporate social performance and corporate financial performance debate twenty-five years of incomparable research. *Business & Society*, *36*(1), 5-31.

Griffiths, A. (2009). A climate for true triple bottom line reporting. *ECOS*, *2009*(149), 27-27.

Hahn, T., & Figge, F. (2011). Beyond the bounded instrumentality in current corporate sustainability research: Toward an inclusive notion of profitability. *Journal of Business Ethics*, *104*(3), 325-345.

Hahn, R., & Kühnen, M. (2013). Determinants of sustainability reporting: a review of results, trends, theory, and opportunities in an expanding field of research. *Journal of Cleaner Production*, *59*, 5-21.

Hahn, T., & Scheermesser, M. (2006). Approaches to corporate sustainability among German companies. *Corporate Social Responsibility and Environmental Management*, *13*(3), 150-165.

Halme, M., Niskanen, J. (2001). Does corporate environmental protection increase or decrease shareholder value? The case of environmental investments. *Business Strategy and the Environment*, *10*(4), 200-214.

Harding, R. (2006). Ecologically sustainable development: origins, implementation and challenges. *Desalination*, *187*(1), 229-239.

Hart, S. L. (1997). Beyond greening: strategies for a sustainable world. *Harvard business review*, *75*(1), 66-77.

Hart, S. L., & Ahuja, G. (1996). Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance. *Business strategy and the Environment*, *5*(1), 30-37.

Hart, S. L., & Milstein, M. B. (2003). Creating sustainable value. *The Academy of Management Executive*, *17*(2), 56-67.

Herzig, C., & Schaltegger, S. (2011). Corporate sustainability reporting. Gudemann, Y. & Michelsen, G. (Eds.), *Sustainability communication*, 151-169, Netherlands: Springer.

Hicks, J., (1946). *Value and Capital. An Inquiry into some Fundamental Principles of Economic Theory* (2nd Edition). Oxford: Clarendon Press.

Hill, C. W. L. & Jones G. R. (1989). *Strategic Management: An integrated approach*. Boston: Houghton Mifflin Company.

Hill, M. O. (1974). Correspondence analysis: a neglected multivariate method. *Applied statistics*, 340-354.

Howard-Grenville, J. A. (2006). Inside the ‘‘black box’’: How organizational culture and subcultures inform interpretations and actions on environmental issues. Organization & Environment, *19*(1): 46–73.

Humphrey, C., O'dwyer, B., & Unerman, J. (2017). Re-theorizing the configuration of organizational fields: the IIRC and the pursuit of 'Enlightened' corporate reporting. *Accounting and Business Research*, *47*(1), 30-63.

International Finance Corporation - IFC (2012, a). Policy on Environmental and Social Sustainability - 2012 Edition. Retrieved February 5, 2017, from http://www.ifc.org/wps/wcm/connect/7540778049a792dcb87efaa8c6a8312a/SP_English_2012.pdf?MOD=AJPERES.

International Finance Corporation - IFC (2012, b). Access to Information Policy - 2012 Edition. Retrieved February 5, 2017, from http://www.ifc.org/wps/wcm/connect/98d8ae004997936f9b7bffb2b4b33c15/IFCPolicyDisclosureInformation.pdf?MOD=AJPERES.

International Finance Corporation - IFC (2012, c). IFC Performance Standards on Environmental and Social Sustainability - Effective January 1, 2012. Retrieved February 5, 2017, from https://www.ifc.org/wps/wcm/connect/c8f524004a73daeca09afdf998895a12/IFC_Performance_Standards.pdf?MOD=AJPERES.

International Integrated Reporting Council - IIRC, (2011). Towards Integrated Reporting Communicating Value in the 21st Century. Retrieved March 27, 2017, from http://integratedreporting.org/wp-content/uploads/2011/09/IR-Discussion-Paper-2011_spreads.pdf.

International Integrated Reporting Council - IIRC, (2013), "Uluslararası (ER) Çerçevesi", 1-35. Retrieved February 5, 2017, from http://integratedreporting.org/wp-content/uploads/2015/03/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-Turkish.pdf.

International Risk Governance Council - IRGC. (2006). White paper on risk governance. Towards an integrative approach. Geneva: IRGC. Retrieved May 27, 2016, from https://www.irgc.org/IMG/pdf/IRGC_WP_No_1_Risk_Governance__reprinted_version_.pdf

Javidan, M. (1998). Core competence: what does it mean in practice?. *Long range planning*, *31*(1), 60-71.

Jones, T. M. and Wicks, A. R. (1999), Convergent Stakeholder Theory, *Academy of Management Review*, 24, 206-221.

Johnson, R. A., & Greening, D. W. (1999). The effects of corporate governance and institutional ownership types on corporate social performance. *Academy of management journal*, *42*(5), 564-576.

Kadıbeşegil, S. (2007). *İtibar Yönetimi: İtibarınızı Yönetmekten Daha Önemli Bir İşiniz Var Mı?*. İstanbul: Mediacat.

Kaplan, R. S., & Norton, D. P. (1996). Using the balanced scorecard as a strategic management system. Retrieved January 1, 2017, from http://www.paca-

online.org/cop/docs/Kaplan+Norton_Balanced_Scorecard_-_3_articles.pdf#page=36

Kargın, S., Aracı, H., Aktat, H. (2013). Entegre Raporlama: Yeni Bir Raporlama Perspektifi. *Muhasebe ve Vergi Uygulamalari Dergisi (MUVU)/Journal of Accounting & Taxation Studies (JATS)*, *6*(1), 27-46.

Kim, Y. (2015). Environmental, sustainable behaviors and innovation of firms during the financial crisis. *Business Strategy and the Environment*, *24*(1), 58-72.

Klassen, R. D., & McLaughlin, C. P. (1996). The impact of environmental management on firm performance. *Management science*, *42*(8), 1199-1214.

Knoepfel, I. (2001). Dow Jones Sustainability Group Index: a global benchmark for corporate sustainability. *Corporate Environmental Strategy*, *8*(1), 6-15.

Koçel, T. (2011). *İşletme Yöneticiliği* (13th Edition). İstanbul: Beta Basım Yayım Dağıtım A.Ş.

Kilbourne, W. E. (2004). Sustainable communication and the dominant social paradigm: Can they be integrated?. *Marketing Theory*, *4*(3), 187-208.

Kohut, G. F., & Segars, A. H. (1992). The president's letter to stockholders: An examination of corporate communication strategy. *Journal of Business Communication*, *29*(1), 7-21.

Kuhn, T. S. (1970). *The structure of scientific revolutions* (2nd Edition). Chicago: University of Chicago Press.

Lee, K. H., Saen, R. F. (2012). Measuring corporate sustainability management: A data envelopment analysis approach. *International Journal of Production Economics*, *140*(1), 219-226.

Linnenluecke, M. K. & Griffiths, A. (2010). Corporate sustainability and organizational culture. *Journal of World Business, 45*(4), 357-366.

Linnenluecke, M. K., Russell, S. V. & Griffiths, A. (2009). Subcultures and sustainability practices: The impact on understanding corporate sustainability. *Business Strategy and the Environment*, *18*(7), 432-452.

Lo, S. F., & Sheu, H. J. (2007). Is corporate sustainability a value-increasing strategy for business?. *Corporate Governance: An International Review*, *15*(2), 345-358.

López, M. V., Garcia, A., & Rodriguez, L. (2007). Sustainable development and corporate performance: A study based on the Dow Jones sustainability index. *Journal of Business Ethics*, *75*(3), 285-300.

Lourenço, I. C., Branco, M. C., Curto, J. D., & Eugénio, T. (2012). How does the market value corporate sustainability performance?. *Journal of business ethics*, *108*(4), 417-428.

Lozano, R. (2009). *Orchestrating organisational change for corporate sustainability: strategies to overcome resistance to change and to facilitate institutionalization.* (Unpublished Doctoral Thesis). Cardiff University.

Lozano, R. (2012a). Towards better embedding sustainability into companies' systems: an analysis of voluntary corporate initiatives. *Journal of Cleaner Production*, *25*, 14-26.

Lozano, R. (2012b). Are companies planning their organizational changes for corporate sustainability? An analysis of three case studies on resistance to change and their strategies to overcome it. *Corporate Social Responsibility and Environmental Management*, *20*(5), 275-295.

Lozano, R. (2015). A holistic perspective on corporate sustainability drivers. *Corporate Social Responsibility and Environmental Management*, *22*(1), 32-44.

Lu, W., & Taylor, M. E. (2015). Which Factors Moderate the Relationship between Sustainability Performance and Financial Performance? A Meta-Analysis Study. *Journal of International Accounting Research*, *15*(1), 1-15.

Mason, C. J. (1993). What image do you project. *Management Review*, *82* (11), 10-16.

McKinsey (2010). How companies manage sustainability: McKinsey Global Survey results: Retrieved 12 November 2016, from http://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/how-companies-manage-sustainability-mckinsey-global-survey-results

McKinsey (2014). Sustainability's strategic worth: McKinsey Global Survey results. Retrieved 12 November 2016, from http://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/sustainabilitys-strategic-worth-mckinsey-global-survey-results

McWilliams, A., & Siegel, D. (2001). Corporate social responsibility: A theory of the firm perspective. *Academy of management review*, *26*(1), 117-127.

Meyer, J. and Rowan, B. (1977). Institutionalized organizations: formal structure as myth and ceremony. *American Journal of Sociology*, *83*(2): 340-363.

Michelson, G., Wailes, N., Van Der Laan, S., & Frost, G. (2004). Ethical investment processes and outcomes. *Journal of Business Ethics*, *52*(1), 1-10.

Miller, K. D., & Bromiley, P. (1990). Strategic risk and corporate performance: An analysis of alternative risk measures. *Academy of Management Journal*, *33*(4), 756-779.

Montiel, I. (2008). Corporate social responsibility and corporate sustainability separate pasts, common futures. *Organization & Environment*, *21*(3), 245-269.

Morhardt, J. E., Baird, S., & Freeman, K. (2002). Scoring corporate environmental and sustainability reports using GRI 2000, ISO 14031 and other criteria. *Corporate Social Responsibility and Environmental Management*, *9*(4), 215-233.

Moskowitz, M. (1972). Choosing socially responsible stocks. *Business and Society Review*, *1*(1), 71-75.

Muscato, C. (n.d.). Human Morality & Ethics According to Adam Smith. Retrieved April 25, 2017, from http://study.com/academy/lesson/human-morality-ethics-according-to-adam-smith.html

Neal, B. & Strauss, R. (2008). Value Creation: The Power of Brand Equity. The United States of America: South-Western Cengage Learning.

Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review 1*6(1), 145-179.

Orlitzky, M., & Benjamin, J. D. (2001). Corporate social performance and firm risk: A meta-analytic review. *Business & Society*, *40*(4), 369-396.

Özçelik, F. (2013). Sürdürülebilirlik Performans Karnesi. *Journal of Yaşar University, 8*(30), 4985-5008.

Özen, Ş. (2007). Yeni kurumsal kuram: Örgütleri çözümlemede yeni ufuklar ve yeni sorunlar. Sargut, A. S. & Özen, Ş *(Eds) Örgüt kuramları (237-331).* Ankara: İmge Kitapevi.

Özmehmet, E. (2008). Dünyada ve Türkiye de sürdürülebilir kalkınma yaklaşımları. *Journal of Yaşar University*, *3*(12), 1853-1876.

Quinn, R. E., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: towards a competing values approach to organizational analysis. *Management Science*, *29*(3), 363-377.

Pätäri, S., Jantunen, A., Kyläheiko, K., & Sandström, J. (2012). Does sustainable development foster value creation? Empirical evidence from the global energy industry. *Corporate Social Responsibility and Environmental Management*, *19*(6), 317-326.

Pawlowski, A. (2008). How many dimensions does sustainable development have?. *Sustainable Development*, *16*(2), 81-90.

Pawłowski, L. (2012). Do the Liberal Capitalism and Globalization Enable the Implementation of Sustainable Development Strategy?(Czy liberalny kapitalizm i globalizacja umożliwiają realizację strategii zrównoważonego rozwoju?). *7*(2), 7-13.

Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley.

Perlmutter, H. V. and Heenan, D. (1986) Cooperate to Compete Globally. *Harvard Business Review*, March Issue. Retrieved March 17, 2017, from https://hbr.org/1986/03/cooperate-to-compete-globally.

Perrini, F., & Tencati, A. (2006). Sustainability and stakeholder management: the need for new corporate performance evaluation and reporting systems. *Business Strategy and the Environment, 15*(5), 296-308.

Pojasek, R. B. (2007). A framework for business sustainability. *Environmental Quality Management, 17*(2), 81-88.

Polanyi, K. (2000). *Büyük Dönüşüm, Çağımızın Sosyal ve Ekonomik Kökenleri* (9th Edition). (A. Buğra, Trans.). İstanbul: İletişim Yayınları (Original work published 1944).

Polonsky, M. J. (1995). A stakeholder theory approach to designing environmental marketing strategy. *Journal of business & industrial marketing*, *10*(3), 29-46.

Porter, M. E. (1981). The contributions of industrial organization to strategic management. *Academy of management review*, *6*(4), 609-620.

Porter, M. E. (1987). From competitive advantage to corporate strategy. *Harvard Business Review*, *65*(3), 43-59.

Porter, M. E. (1991). Towards a dynamic theory of strategy. *Strategic management journal*, *12*(Special Issue), 95-117.

Porter, M. E. (1996). "What Is Strategy?" *Harvard Business Review*, 74(6), 61-78.

Porter, M. E. (2010). What is value in health care?. *New England Journal of Medicine*, *363*(26), 2477-2481.

Porter, M. E., & Kramer, M. R. (2011). Creating shared value. *Harvard business review*, *89*(1/2), 62-77.

Post, J. E., & Altma, B. W. (1994). Managing the environmental change process: barriers and opportunities. *Journal of Organizational Change Management*, *7*(4), 64-81.

Post J. E., Preston L. E. & Sachs S. (2002). Managing the extended enterprise: the new stakeholder view. *California Management Review 45*(1): 6–28.

Redclift, M. (2005). Sustainable development (1987–2005): an oxymoron comes of age. *Sustainable development*, *13*(4), 212-227.

Reinhardt, F. (1999). Market failure and the environmental policies of firms: Economic rationales for "beyond compliance" behavior. *Journal of Industrial Ecology*, *3*(1), 9-21.

Rindova, V. P., Williamson, I. O., Petkova, A. P., & Sever, J. M. (2005). Being good or being known: An empirical examination of the dimensions, antecedents, and

consequences of organizational reputation. *Academy of Management Journal*, *48*(6), 1033-1049.

Roberts, P. W., & Dowling, G. R. (2002). Corporate reputation and sustained superior financial performance. *Strategic management journal*, *23*(12), 1077-1093.

Saint, W. (2011). The Principles of Capitalism and Their Effects in the World. Retrieved March 27, 2017, from http://justiceunbound.org/journal/current-issue/the-the-principles-of-capitalism-and-their-effects-in-the-world/.

Salzmann, O., Ionescu-Somers, A., & Steger, U. (2005). The business case for corporate sustainability: literature review and research options. *European Management Journal*, *23*(1), 27-36.

Satı, Z. E., & Işık, Ö. (2011). İnovasyon ve stratejik yönetim sinerjisi: Stratejik inovasyon. *Celal Bayar Üniversitesi Sosyal Bilimler Dergisi*, *9*(2), 538-559.

Saxton, M. K. (1998). Where do reputations come from?. *Corporate Reputation Review*, *1*(4), 393-399.

Schaltegger, S., Synnestvedt, T. (2002). The link between 'green' and economic success: environmental management as the crucial trigger between environmental and economic performance. *Journal of environmental management*, *65*(4), 339-346.

Schaltegger, S., Bennett, M., & Burritt, R. (Eds.). (2006). *Sustainability accounting and reporting* (Vol. 21). Springer Science & Business Media.

Schoemaker, P. J. (1995). Scenario planning: a tool for strategic thinking. *Sloan management review*, *36*(2), 25-40.

Scott, C., & Bryson, A. (2012). Waking Up at Work. *Journal of Corporate Citizenship*, 46, 139-158.

Selznick, P. (1948). Foundations of the Theory of Organization. *American sociological review*, *13*(1), 25-35.

Sharma, S. (2000). Managerial interpretations and organizational context as predictors of corporate choice of environmental strategy. *Academy of Management journal*, *43*(4), 681-697.

Sharma, S., & Henriques, I. (2005). Stakeholder influences on sustainability practices in the Canadian forest products industry. *Strategic management journal*, *26*(2), 159-180.

Sharma, S., & Vredenburg, H. (1998). Proactive corporate environmental strategy and the development of competitively valuable organizational capabilities. *Strategic management journal*, 729-753.

Shrivastava, P. (1995). The role of corporations in achieving ecological sustainability. *Academy of management review*, *20*(4), 936-960.

Siebenhüner, B., & Arnold, M. (2007). Organizational learning to manage sustainable development. *Business strategy and the environment*, *16*(5), 339-353.

Simpson, W. G., & Kohers, T. (2002). The link between corporate social and financial performance: Evidence from the banking industry. *Journal of business ethics*, *35*(2), 97-109.

Skouloudis, A., Evangelinos, K. I. (2009). Sustainability reporting in Greece: are we there yet?. *Environmental Quality Management*, *19*(1), 43-60.

Soubbotina, T. P. (2004), *Beyond Economic Growth an Introduction to Sustainable Development* (2nd Edition). USA: World Bank.

Stern, D. I. (1997). The capital theory approach to sustainability: a critical appraisal. *Journal of Economic Issues*, *31*(1), 145-174.

Svendsen, G. L. H., & Sørensen, J. F. L. (2007). There's more to the picture than meets the eye: Measuring tangible and intangible capital in two marginal communities in rural Denmark. *Journal of Rural Studies*, *23*(4), 453-471

Takala, T., & Pallab, P. (2000). Individual, collective and social responsibility of the firm. *Business ethics: A european review*, *9*(2), 109-118.

Targowski, A. S., & Bowman, J. P. (1988). The layer-based, pragmatic model of the communication process. *Journal of Business Communication*, *25*(1), 5-24.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, 509-533.

Thompson, A. A. & Strickland, A. J. (1999). *Strategic Management Concepts and Cases* (11th Edition). McGraw – Hill International Editions.

Thorpe, J., & Prakash-Mani, K. (2003). Developing value: The business case for sustainability in emerging markets. *Greener Management International*, 44, 17-44.

Tolbert, P. S., & Zucker, L. G. (1999). The institutionalization of institutional theory. *Studying Organization. Theory & Method. London, Thousand Oaks, New Delhi*, 169-184.

Tucker, L., & Melewar, T. C. (2005). Corporate reputation and crisis management: The threat and manageability of anti-corporatism. *Corporate reputation review*, *7*(4), 377-387.

Tukker, A. (2004). Eight types of product–service system: eight ways to sustainability? Experiences from SusProNet. *Business strategy and the environment*, *13*(4), 246-260.

Turban, D. B., & Greening, D. W. (1997). Corporate social performance and organizational attractiveness to prospective employees. *Academy of management journal*, *40*(3), 658-672.

Türker, D. & Altuntaş, C. (2012). Sürdürülebilir Tedarik Zincirleri: Sürdürülebilirlik Raporlarının İçerik Analizi. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *14*(3), 39-64.

United Nations Corporate Sustainable Development (UNCSD), (2012). The Future We Want, Retrieved March 17, 2017, from http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E.

United Nations Development Programme (UNDP), (2015). Frequently Asked Questions (FAQs) about the Human Development Index (HDI), Retrieved March 17, 2017, from http://hdr.undp.org/en/faq-page/human-development-index-hdi#t292n36.

United Nations Development Programme (UNDP), (1996). Human Development Report, Oxford University Press. New York., Retrieved March 17, 2017, from http://hdr.undp.org/sites/default/files/reports/257/hdr_1996_en_complete_nostats.pdf.

United Nations Report of the World Summit on Sustainable Development (2002). Retrieved March 17, 2017, from http://www.unmillenniumproject.org/documents/131302_wssd_report_reissued.pdf

United Nations Global Compact - UNGC (w.date). The Ten Principles of the UN Global Compact. Retrieved December 07, 2016, from https://www.unglobalcompact.org/what-is-gc/mission/principles

Ülgen, H. and Mirze, K. (2004). *İşletmelerde Stratejik Yönetim.* İstanbul: Literatür Yayınları.

Van den Boogaart, K. G., & Tolosana-Delgado, R. (2013). *Analyzing compositional data with R* (Vol. 122). Berlin: Springer.

Van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *Journal of business ethics*, *44*(2), 95-105.

Van Riel, C. B. M. (1992). Corporate communication in European financial institutions. *Public Relations Review*, *18*(2), 161-175.

Victor, P. A. (1991). Indicators of sustainable development: some lessons from capital theory. *Ecological economics*, *4*(3), 191-213.

Viederman, S. (1994). The Economics of Sustainability: Challenges. Paper presented at the workshop, The Economics of Sustainability, Fundacao Joaquim Nabuco, Recife, Brazil.

Waddock, S. A., & Graves, S. B. (1997). The corporate social performance-financial performance link. *Strategic management journal*, 303-319.

Wagner, M., & Schaltegger, S. (2003). How does sustainability performance relate to business competitiveness?. *Greener Management International*, 44, 5-17.

Wartick, S. L., & Cochran, P. L. (1985). The evolution of the corporate social performance model. *Academy of management review*, *10*(4), 758-769.

Welch, M., & Jackson, P. R. (2007). Rethinking internal communication: a stakeholder approach. *Corporate Communications: An International Journal*, *12*(2), 177-198.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic management journal*, *5*(2), 171-180.

Wernerfelt, B. (1989). From critical resources to corporate strategy. *Journal of general management*, *14*(3), 4-12.

Westphal, J. D., & Fredrickson, J. W. (2001). Who directs strategic change? Director experience, the selection of new CEOs, and change in corporate strategy. *Strategic Management Journal*, *22*(12), 1113-113.

Wetherill, M., Rezgui, Y., Boddy, S., & Cooper, G. S. (2007). Intra-and interorganizational knowledge services to promote informed sustainability practices. *Journal of Computing in Civil Engineering*, *21*(2), 78-89. Williams, S. (1999). UK ethical investment: A coming of age. *The Journal of Investing*, *8*(2), 58-75.

Windolph, S. E. (2013). *Motivations, Organizational Units, and Management Tools. Taking Stock of the Why, Who, and How of Implementing Corporate Sustainability Management* (Doctoral dissertation, Universitätsbibliothek der Leuphana Universität Lüneburg).

World Commission on Environment and Development (WCED) (1987). *Our Common Future*. Oxford: Oxford University.

Wood, D. J. (1991). Corporate social performance revisited. *Academy of management review*, *16*(4), 691-718.

Wood, D. J., & Jones, R. E. (1995). Stakeholder mismatching: A theoretical problem in empirical research on corporate social performance. *The International Journal of Organizational Analysis*, *3*(3), 229-267.

Yalçınkaya, A., Durmaz, V., & Adiller, L. (2011). Sürdürülebilir Kalkınma ve Kurumsal Sürdürülebilirlik İçin Yeni Ölçümleme: Üçlü Performans. *9th International Conference on Knowledge, Economy & Management Proceedings,* 3320-3332. Sarajevo-Bosnia & Herzegovina.

Yong, A. G., & Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in quantitative methods for psychology*, *9*(2), 79-94.

Yiviloğlu, C. (2002). Geri Kalmışlık Olgusu Ve Ekonomistik Kalkınma Teorileri (Eleştirel Bir Yaklaşım). *C.Ü. İktisadi ve İdari Bilimler Dergisi, 3*(2), 49-70.

Zink, K. J. (2007). From total quality management to corporate sustainability based on a stakeholder management. *Journal of Management History*, *13*(4), 394-401.

APPENDIX 1: QUESTIONNAIRE FORM– ENGLISH VERSION

Questionnaire of "Unfolding Strategic Drivers of Corporate Sustainability Practices" Survey

In this part there are eight items each of which has 4 sub-items. Please rank all of each statement (sub-item) for three time dimension as "Past", "Present", and "Future" (Expected).

Please pay attention while ranking as the following points:

- The total score of four sub-items under the same item should be 100 for every time dimension.
- You can write "0" (Zero) if you think that the written statements are not valid / appropriate according to your opinion.

1. Corporate sustainability practices are carried out in order to create corporate value.	**Past**	**Present**	**Future**
These practices are carried out in order to create and strengthen value chain activities (i.e. procurement, manufacturing, marketing, sales)			
These practices are carried out in order to attract, motivate, and retain talented employees			
These practices are carried out in order to increase corporate credibility and attract investors and financial authorities.			
These practices are carried out in order to improve brand value.			
Total	**100**	**100**	**100**
2. Corporate sustainability practices are carried out in order to maintain and improve corporate reputation	**Past**	**Present**	**Future**
These practices are carried out in order to improve preferability of products and services that the company offers.			
These practices are carried out in order to improve customer loyalty.			
These practices are carried out in order to enhance intangible resources.			
These practices are carried out in order to provide and maintain competitive advantage.			
Total	**100**	**100**	**100**

3. Corporate sustainability practices are carried out in order to align with organization's business goals	**Past**	**Present**	**Future**
These practices are carried out in order to improve organizational efficiency			
These practices are carried out in order to provide new growth opportunities.			
These practices are carried out in order to strengthen competitive position.			
These practices are carried out in order to maintain ethical practices.			
Total	**100**	**100**	**100**
4. Corporate sustainability practices are carried out in order to comply with regulations	**Past**	**Present**	**Future**
These practices are carried out in order to meet environmental regulations (E.g. Regulations for greenhouse gas emissions)			
These practices are carried out in order to meet social regulations and labor standards			
These practices are carried out in order to meet accepted industry standards. (E.g. Energy sector, or banking sector – BDDK regulations)			
These practices are carried out in order to meet international regulations (E.g. Treaties by European Union or regulation derived from international trade)			
Total	**100**	**100**	**100**
5. Corporate sustainability practices are carried out in order to manage risks.	**Past**	**Present**	**Future**
These practices are carried out in order to reduce financial risks by providing corporate transparency			
These practices are carried out in order to reduce environmental risks through understanding environmental resource constraints			
These practices are carried out in order to reduce social risks through respecting for human rights, equal opportunity, equal pay, non-discrimination.			
These practices are carried out in order to reduce the risk of entering new markets.			
Total	**100**	**100**	**100**

6. Corporate sustainability practices are carried out as they are recognized among organizational priorities.	**Past**	**Present**	**Future**
Corporate sustainability practices are carried out as they are recognized a part of corporate strategy.			
Corporate sustainability practices are carried out as they are recognized among CEO's / top management's priorities.			
Corporate sustainability practices are carried out as they are recognized as leadership's personal interest.			
Corporate sustainability practices are carried out in accordance with the advice of the consulting firms.			
Total	**100**	**100**	**100**
7. Corporate sustainability practices are carried out in order to lower costs	**Past**	**Present**	**Future**
These practices are carried out in order to lower costs due to an increase in recycled material used in production.			
These practices are carried out in order to lower costs due to an increase in water conservation.			
These practices are carried out in due to an increase in energy saving.			
These practices are carried out in due to waste management.			
Total	**100**	**100**	**100**
8. Corporate sustainability practices are carried out in order to improve corporate communication.	**Past**	**Present**	**Future**
Publishing a sustainability section on corporate website contributes to corporate communication practices.			
Sustainability reporting contributes to corporate communication practices.			
Membership to sustainability organizations contributes to corporate communication practices.			
Participating in sustainability rankings through sustainability contests and being awarded contributes to corporate communication practices.			
Total	**100**	**100**	**100**

This part contains demographic information. Please make your choices according to company information that you work at.

Sector of your company	☐Manufacturing ☐Service
Type of your company	☐National / private ☐ Multinational / private ☐ Public
Annual business volume of your company	☐0-49 million TL ☐ 50-99 million TL ☐ 100-499 million TL. ☐500-999 million TL ☐ 1 billion TL and +
Does your company issue sustainability reports?	☐ Yes ☐ No

Thank you for your participation.

APPENDIX 2: QUESTIONNAIRE FORM – TURKISH VERSION

"Kurumsal Sürdürülebilirlik Uygulamalarının Stratejik Etmenleri" Anketi

Ekte sekiz konu başlığı altında dörder ifade yer almaktadır. Her bir konu başlığı altında yer alan dört ifadeyi, "**Geçmişteki Durum**" "**Şu andaki (Mevcut) Durum**" ve "**Gelecekte (Olması İstenen) Durum**" olmak üzere değerlendirmenizi rica ederiz.

- Bir konu başlığı altındaki dört ifadenin toplamı (her üç sütunda da) 100 puan olmalıdır.
- Yazılmış olan ifadelerden uygun/geçerli olmadığını düşündüğünüz varsa karşılığına "0" (Sıfır) yazabilirsiniz.

1. Kurumsal sürdürülebilirlik uygulamaları, kurumsal değer yaratmak için yürütülür.	**Geçmişte**	**Şu anda**	**Gelecekte**
Değer zincirinde yer alan faaliyetler kapsamında (tedarik, üretim, satış, pazarlama gibi) değer yaratmak için yürütülür.			
Nitelikli işgücünü kuruma çekmek, onları motive etmek ve kurumda kalıcılıklarını arttırarak değer yaratmak için yürütülür.			
Kurumun kredibilitesini arttırmak ve yatırımcıları çekmek konusunda değer yaratmak için yürütülür.			
Marka değerinin artması konusunda değer yaratmak için yürütülür.			
Toplam	**100**	**100**	**100**

2. Kurumsal sürdürülebilirlik uygulamaları, kurumların kurumsal itibarını yükselttiği için yürütülür.	**Geçmişte**	**Şu anda**	**İstenen**
Kurumların sunduğu ürün ve hizmetlerinin tercih edilebilirliği arttırdığı için yürütülür.			
Müşteri sadakatini arttırdığı için yürütülür.			
Maddi olmayan kaynakları arttırdığı için yürütülür.			
Rekabet avantajı elde edildiği ve korunduğu için yürütülür.			
Toplam	**100**	**100**	**100**

3. Kurumsal sürdürülebilirlik çalışmaları, kurumsal hedeflerle uyumlu olduğu için yürütülür.	**Geçmişte**	**Şu anda**	**İstenen**
Operasyonel etkinliği güçlendirdiği için yürütülür.			
Yeni büyüme fırsatları sağladığı için yürütülür.			
Rekabetçi pozisyonu güçlendirdiği için yürütülür.			
Kurumsal ve iş etiği uygulamalarının korunması ve devamlılığı için yürütülür.			
Toplam	**100**	**100**	**100**

4. Kurumsal sürdürülebilirlik çalışmaları, mevzuatlara uyum sağlayabilmek için yürütülür.	**Geçmişte**	**Şu anda**	**İstenen**
Çevresel mevzuat gereğince yürütülür. (Ör: Sera gazı emisyonlarına ilişkin düzenlemeler)			
Sosyal mevzuat gereğince yürütülür. (Ör: İş sağlığı ve güvenliğine ilişkin düzenlemeler)			
Sektörel mevzuat gereğince yürütülür. (Ör: Enerji sektörü, BDDK düzenlemeleri)			
Uluslararası mevzuat gereğince yürütülür. (Ör: Avrupa Birliği veya dış ticaret kapsamında ticarette bulunulan yabancı ülkelerin mevzuatları)			
Toplam	**100**	**100**	**100**

5. Kurumsal sürdürülebilirlik çalışmaları, riskleri yönetmek için yürütülür.	**Geçmişte**	**Şu anda**	**İstenen**
Kurumsal şeffaflık sağlayarak pazar payını kaybetme riskini ve finansal riskleri azalttığı için yürütülür.			
Çevresel kaynak kısıtlarının anlaşılması ile çevresel riskleri azalttığı için yürütülür.			
İnsan haklarına saygı, fırsat eşitliği ve eşit ücretlendirme, ayrımcılık yapılmaması konularına gösterilen özen ile sosyal riskleri azalttığı için yürütülür.			
Yeni pazarlara giriş risklerini azalttığı için yürütülür.			
Toplam	**100**	**100**	**100**

6. Kurumsal sürdürülebilirlik çalışmaları, kurumsal öncelikler arasında yer aldığı için yürütülür.	**Geçmişte**	**Şu anda**	**İstenen**
Genel kurumsal stratejinin bir unsuru olduğu için yürütülür.			
CEO / Üst yönetimin vizyonu kapsamında olduğu için yürütülür.			
Kurum içindeki bir liderin kişisel ilgisi kapsamında olduğu için yürütülür.			
Kurumsal danışmanlık hizmeti alan kurumlarda, danışmanlık veren kurumun/kişinin tavsiyesi doğrultusunda yürütülür.			
Toplam	**100**	**100**	**100**

7. Kurumsal sürdürülebilirlik çalışmaları, maliyetleri azalttığı için yürütülür.	**Geçmişte**	**Şu anda**	**İstenen**
Girdi olarak kullanılan geri dönüştürülmüş malzemelerin oranı artığı için maliyetler azalır.			
Kaynak bazında su çekimi (doğrudan su kullanımı) azaldığı için maliyetler azalır.			
Enerji (elektrik) kullanımı azaldığı için maliyetler azalır.			
Atık (çöp) miktarı azaldığı için maliyetler azalır.			
Toplam	**100**	**100**	**100**

8. Kurumsal sürdürülebilirlik çalışmaları, kurumsal iletişim uygulamalarına katkı sağladığı için yürütülür.	**Geçmişte**	**Şu anda**	**İstenen**
Kurumsal web-sitesinde "Sürdürülebilirlik" bölümü oluşturmak, kurumsal iletişim uygulamalarına katkı sağlar.			
Kurumsal sürdürülebilirlik raporu yazmak ve yayınlamak kurumsal iletişim uygulamalarına katkı sağlar.			
Kurumsal sürdürülebilirlik konusunda faaliyet gösteren kuruluşlara üyelik kurumsal iletişim uygulamalarına katkı sağlar.			
Sürdürülebilirlik temalı yarışmalara katılım, başarı kazanma kurumsal iletişim uygulamalarına katkı sağlar.			
Toplam	**100**	**100**	**100**

Bu bölüm demografik bilgileri içermektedir. Lütfen çalıştığınız kurumun özelliklerine uygun olan seçeneği işaretleyiniz.

Kurumunuzun faaliyet gösterdiği sektör	☐Üretim ☐Hizmet
Kurumunuzun türü	☐Ulusal özel ☐ Uluslararası/ Çokuluslu özel ☐ Kamu
Kurumunuzun yıllık iş hacmi	☐0-49 milyon TL ☐ 50-99 milyon TL ☐ 100-499 milyon TL. ☐500-999 milyon TL ☐ 1 milyar TL ve üzeri
Kurumunuz sürdürülebilirlik raporu yayınlıyor mu?	☐ Evet ☐ Hayır

Anketimiz bitmiştir. Katılımınız için teşekkür ederiz.

APPENDIX 3: R CODES FOR COMPOSITIONAL DATA

```
co_ca <- function (obj, nd = NA, suprow = NA, supcol = NA, subsetrow
= NA,
                   subsetcol = NA, cutt = 0.1, ...)
{
  nd0 <- nd
  I <- dim(obj)[1]
  J <- dim(obj)[2]
  rn <- dimnames(obj)[[1]]
  cn <- dimnames(obj)[[2]]
  N <- matrix(as.matrix(obj), nrow = I, ncol = J)
  Ntemp <- N
  NtempC <- NtempR <- N
  suprow <- sort(suprow)
  supcol <- sort(supcol)
  if (!is.na(supcol[1]) & !is.na(suprow[1])) {
    NtempC <- Ntemp[-suprow, ]
    NtempR <- Ntemp[, -supcol]
  }
  if (!is.na(supcol[1])) {
    SC <- as.matrix(NtempC[, supcol])
    Ntemp <- Ntemp[, -supcol]
    cs.sum <- apply(SC, 2, sum)
  }
  if (!is.na(suprow[1])) {
    SR <- matrix(as.matrix(NtempR[suprow, ]), nrow = length(suprow))
    Ntemp <- Ntemp[-suprow, ]
    rs.sum <- apply(SR, 1, sum)
  }
  N <- matrix(as.matrix(Ntemp), nrow = dim(Ntemp)[1], ncol =
dim(Ntemp)[2])
  subsetrowt <- subsetrow
  if (!is.na(subsetrow[1]) & !is.na(suprow[1])) {
    subsetrowi <- subsetrow
    subsetrowt <- sort(c(subsetrow, suprow))
    subsetrowt <- subsetrowt[!duplicated(subsetrowt)]
    I <- length(subsetrowt)
    for (q in length(suprow):1) {
      subsetrow <- subsetrow[subsetrow != suprow[q]]
      subsetrow <- subsetrow - as.numeric(suprow[q] < subsetrow)
    }
    for (q in 1:length(suprow)) suprow[q] <-
(1:length(subsetrowt))[subsetrowt ==

suprow[q]]
  }
  subsetcolt <- subsetcol
  if (!is.na(subsetcol[1]) & !is.na(supcol[1])) {
    subsetcoli <- subsetcol
    subsetcolt <- sort(c(subsetcol, supcol))
    subsetcolt <- subsetcolt[!duplicated(subsetcolt)]
    J <- length(subsetcolt)
    for (q in length(supcol):1) {
      subsetcol <- subsetcol[subsetcol != supcol[q]]
      subsetcol <- subsetcol - as.numeric(supcol[q] < subsetcol)
    }
    for (q in 1:length(supcol)) supcol[q] <-
(1:length(subsetcolt))[subsetcolt ==
```

```
supcol[q]]
  }
  dim.N <- dim(N)
  if (!is.na(subsetrow[1])) {
    if (!is.na(supcol[1]))
      SC <- as.matrix(SC[subsetrow, ])
  }
  if (!is.na(subsetcol[1])) {
    if (!is.na(suprow[1]))
      SR <- matrix(as.matrix(SR[, subsetcol]), nrow =
length(suprow))
  }
  if (is.na(subsetrow[1]) & is.na(subsetcol[1])) {
    nd.max <- min(dim.N) - 1
  }
  else {
    N00 <- N
    if (!is.na(subsetrow[1]))
      N00 <- N00[subsetrow, ]
    if (!is.na(subsetcol[1]))
      N00 <- N00[, subsetcol]
    dim.N <- dim(N00)
    nd.max <- min(dim.N)
    if (!is.na(subsetrow[1]) & is.na(subsetcol[1])) {
      if (dim.N[1] > dim.N[2])
        nd.max <- min(dim.N) - 1
    }
    else {
      if (is.na(subsetrow[1]) & !is.na(subsetcol[1])) {
        if (dim.N[2] > dim.N[1]) {
          nd.max <- min(dim.N) - 1
        }
      }
    }
  }
  if (is.na(nd) | nd > nd.max)
    nd <- nd.max
  #Alternatif#
  N[N==0] <- cutt
  #
  n <- sum(N)
  P <- N/n
  rm <- apply(P, 1, sum) #row masses
  cm <- apply(P, 2, sum) #col masses
  eP <- rm %*% t(cm) #Expected Matrix
  eN <- eP * n #AnlamÄ± yok
  #Metrik Burada Giriyor.
  S <- (P - eP)/sqrt(eP)

  #ALTERNATÄ°F KOD#
  G.1.r <- matrix(1,dim(P)[2],1)
  G.1.c <- matrix(1,dim(P)[1],1)
  G.Dr <- diag(rm,dim(P)[1],dim(P)[1]) #Diagonal matrix of row
masses
  G.Dc <- diag(cm,dim(P)[2],dim(P)[2]) #Diagonal matrix of column
masses

  identity.row <- diag(1,dim(P)[1])
  identity.col <- diag(1,dim(P)[2])
  matr.2 <- identity.row-G.1.c%*%t(rm)
```

```
  matr.4 <- t(identity.col-G.1.r%*%t(cm))

  matr.middle.1 <- log(N)

  S <- sqrt(G.Dr)%*%matr.2%*%matr.middle.1%*%matr.4%*%sqrt(G.Dc)

  #

  if (!is.na(subsetcol[1])) {
    S <- S[, subsetcol]
    cm <- cm[subsetcol]
    cn <- cn[subsetcolt]
  }
  if (!is.na(subsetrow[1])) {
    S <- S[subsetrow, ]
    rm <- rm[subsetrow]
    rn <- rn[subsetrowt]
  }
  chimat <- S^2 * n #Bunun anlamÄ± olacak mÄ± bilmiyorum. BaÅŸka
hiÃ§ bir yerde geÃ§miyor.

  #DECOMPOSITION BURADA
  dec <- svd(S)
  sv <- dec$d[1:nd.max]
  u <- dec$u
  v <- dec$v
  ev <- sv^2



  cumev <- cumsum(ev)
  totin <- sum(ev)
  rin <- apply(S^2, 1, sum)
  cin <- apply(S^2, 2, sum)
  rachidist <- sqrt(rin/rm)
  cachidist <- sqrt(cin/cm)
  rchidist <- rep(NA, I)
  cchidist <- rep(NA, J)
  if (!is.na(subsetrow[1])) {
    obj <- obj[subsetrowt, ]
  }
  if (!is.na(subsetcol[1])) {
    obj <- obj[, subsetcolt]
  }
  if (!is.na(suprow[1])) {
    if (is.na(supcol[1])) {
      P.stemp <- matrix(as.matrix(obj[suprow, ]), nrow =
length(suprow))
    }
    else {
      P.stemp <- matrix(as.matrix(obj[suprow, -supcol]),
                        nrow = length(suprow))
    }
    P.stemp <- P.stemp/apply(P.stemp, 1, sum)
    P.stemp <- t((t(P.stemp) - cm)/sqrt(cm))
    rschidist <- sqrt(apply(P.stemp^2, 1, sum))
    rchidist[-suprow] <- rachidist
    rchidist[suprow] <- rschidist
  }
  else rchidist <- rachidist
  if (!is.na(supcol[1])) {
```

```
    if (is.na(suprow[1])) {
      P.stemp <- as.matrix(obj[, supcol])
    }
    else {
      P.stemp <- as.matrix(obj[-suprow, supcol])
    }
    P.stemp <- t(t(P.stemp)/apply(P.stemp, 2, sum))
    P.stemp <- (P.stemp - rm)/sqrt(rm)
    cschidist <- sqrt(apply(P.stemp^2, 2, sum))
    cchidist[-supcol] <- cachidist
    cchidist[supcol] <- cschidist
  }
  else {
    cchidist <- cachidist
  }
  phi <- as.matrix(u[, 1:nd])/sqrt(rm)
  gam <- as.matrix(v[, 1:nd])/sqrt(cm)
  if (!is.na(suprow[1])) {
    cs <- cm
    gam.00 <- gam
    base2 <- SR/matrix(rs.sum, nrow = nrow(SR), ncol = ncol(SR))
    base2 <- t(base2)
    cs.0 <- matrix(cs, nrow = nrow(base2), ncol = ncol(base2))
    svphi <- matrix(sv[1:nd], nrow = length(suprow), ncol = nd,
                    byrow = TRUE)
    base2 <- base2 - cs.0
    phi2 <- (t(as.matrix(base2)) %*% gam.00)/svphi
    phi3 <- matrix(NA, ncol = nd, nrow = I)
    phi3[suprow, ] <- phi2
    phi3[-suprow, ] <- phi
    rm0 <- rep(NA, I)
    rm0[-suprow] <- rm
    P.star <- SR/n
    rm0[suprow] <- NA
    rin0 <- rep(NA, I)
    rin0[-suprow] <- rin
    rin <- rin0
    rm.old <- rm
    rm <- rm0
  }
  if (!is.na(supcol[1])) {
    if (!is.na(suprow[1])) {
      rs <- rm.old
    }
    else {
      rs <- rm
    }
    phi.00 <- phi
    base2 <- SC/matrix(cs.sum, nrow = nrow(SC), ncol = ncol(SC),
                       byrow = TRUE)
    rs.0 <- matrix(rs, nrow = nrow(base2), ncol = ncol(base2))
    svgam <- matrix(sv[1:nd], nrow = length(supcol), ncol = nd,
                    byrow = TRUE)
    base2 <- base2 - rs.0
    gam2 <- (as.matrix(t(base2)) %*% phi.00)/svgam
    gam3 <- matrix(NA, ncol = nd, nrow = J)
    gam3[supcol, ] <- gam2
    gam3[-supcol, ] <- gam
    cm0 <- rep(NA, J)
    cm0[-supcol] <- cm
    P.star <- SC/n
```

```
    cm0[supcol] <- NA
    cin0 <- rep(NA, J)
    cin0[-supcol] <- cin
    cin <- cin0
    cm <- cm0
  }
  if (exists("phi3")) {
    phi <- phi3
  }
  if (exists("gam3")) {
    gam <- gam3
  }
  dims <- paste0("Dim", seq_along(sv))[1:nd]
  dimnames(phi) <- list(rn, dims)
  dimnames(gam) <- list(cn, dims)
  ca.output <- list(sv = sv, nd = nd0, rownames = rn, rowmass = rm,
                    rowdist = rchidist, rowinertia = rin, rowcoord =
phi,
                    rowsup = suprow, colnames = cn, colmass = cm,
coldist = cchidist,
                    colinertia = cin, colcoord = gam, colsup =
supcol, N = N,
                    call = match.call())
  class(ca.output) <- "ca"
  return(ca.output)
}
```

CURRICULUM VITAE

Gönenç DALGIÇ TURHAN

My purpose is to overcome the limits that are created in our minds and develop myself day by day. I see myself as a venturesome, hardworking, ambitious, target oriented, and communicative person. In the long way of my academic journey, I try to successfully fulfil opportunities that will help and facilitate my desire of self-development. Studying hard, positive thinking and team-work are fundamental features of my vision.

Personal Details:

Date of Birth: 04.11.1979

E-mail: turhan@gonencdalgic.com

gonenc.dalgic@yasar.edu.tr

Professional Experience:

January 2016 - … : Import Manager at Karyatech Elk. Ekp. San. ve Tic. A.Ş.

September 2015 – February 2017: Part – time lecturer at Yaşar Üniversitesi, Graduate School of Natural and Applied Sciences, MSc Program in Business Engineering

September 2013 - April 2014: Visiting PhD Candidate Researcher at Hohenheim University, Institute of Marketing and Management, Department of Business StartUps and Entrepreneurship

January 2006 - May 2012 : Reginal Sales Assistant Manager at BNP Paribas Cardif of Aegean Region

June 2003 – August 2005 : Financial Advisor at Yapı Kredi Pension and Life Insurance

Education:

September 2012 - … : PhD Candidate at Yaşar Üniversitesi, Graduate School of Social Sciences, Department of Business Administration, PhD Program in Business (English)

September 2006 – November 2009: Dokuz Eylül University, M.A. in Management and Organization with success average of 3,88 / 4

September 1997 – June 2001 : Dokuz Eylül University B.A. in International Relations with success average of 80,3 /100

September 1993 – June 1997 : Selma Yiğitalp Lisesi (High School) with success average of 4,8 / 5

Publications:

Turhan, G. D. (2017). *Challenges in Service Marketing*. In Pırnar, İ., Kesici, E. M., Tütüncüoğlu, M., İğneci, M. (Eds.), International Services Marketing: New Trends and Updated Terminology, 54-62, Ankara: Detay Yayıncılık.

Turhan, G. D. (2017). *Developing Strategies for Transnational Operations in Services*. In Pırnar, İ., Kesici, E.M., Tütüncüoğlu, M., İğneci, M. (Eds.), International Services Marketing: New Trends and Updated Terminology, 122-130, Ankara: Detay Yayıncılık.

Kesici, E. M., Nazlı, M., & Turhan, G. D. (2017). Compatibility of Firm Positioning Strategy and Website Content: Highest R&D Spending Firms in Turkey. *Gaziantep University Journal of Social Sciences*, 664-686.

Nazlı, M., Kesici, E. E., Turhan, G. D., & Arbak, H. (2017). İnovatif Firmaların İnovasyon Yönetim Perspektiflerindeki Farklılıklar: İzmir Vaka Çalışması. *Ege Stratejik Araştırmalar Dergisi*, 8(2), 151-173.

Dalgıç, G., Kuckertz, A., & Bulut, Ç. (2016). *Antecedents of Transnational Entrepreneurial Behavior: Evidence from Turkish-German Firms*. In Pyka, A., Kuştepeli, Y., & Hartmann, D. (Eds.), International Innovation Networks and Knowledge Migration: The German–Turkish Nexus, 161-179, New York: Routledge.

Dalgıç, G., Hacıoğlu, F., Arbak, H., Taşpınar, P., Gençer, H., & Karaata, S. (2015). *İnovasyon Ölçümüne İlişkin Bir Derleme: Dünyadan ve Türkiye'den Bazı Öne Çıkan Yaklaşımlar*. In Akpınar, R. (Eds.), AR-GE ve İnovasyon Programlarında Değerlendirme ve Etki Analizi, 41-67, İzmir: Kitapana.

Projects:

January 2016 – February 2017: *Kurumsal Sürdürülebilirlik Projesi (Corporate Sustainability Project):* Within the scope of the project, the literature on corporate sustainability as well as sustainability practices of companies are examined. The strategic importance of corporate sustainability practices has been emphasized. An article has been written covering corporate sustainability concept, strategic priority and sustainability performance measurement. The article has not been published yet when the CV was written.

May 2015 – March 2016 : *İzmir İnovasyon Başarı Hikayeleri Projesi (Innovation Success Stories Project of Izmir):* The project covers the enterprises operating in İzmir that are successfully carrying out studies on innovation. Within the scope of the project, the enterprises included in the selected sampling were examined by case analysis. A booklet was prepared and published after the evaluation, and a workshop was also held at Yaşar University Conference Hall. It is aimed to encourage innovation activities and to obtain inspirational conclusions by sharing successful innovation activities carried out with the project.

Presentations:

August 2016: *Engelsiz Yaşam İçin İnovasyon Çalıştayı (Workshop on Innovation for Non-Disabled Life)*: I was one of the four speakers at the workshop organized by İzmir Metropolitan Municipality within the scope of İZFAŞ.

Skills Profile:

Excellent knowledge of data processing for PC.

Excellent knowledge of English and basic knowledge of German