



UNIVERSITÀ DEGLI STUDI DI PALERMO

Model Based Public Planning, Policy Design, and Management
Department of Political Sciences and International Relations (DEMS)
Settore Scientifico Disciplinare SECS-P/07

**ENABLING LOCAL GOVERNMENTS TO DESIGN AND
IMPLEMENT ANTI-CORRUPTION STRATEGIES THROUGH
DYNAMIC PERFORMANCE MANAGEMENT AND
GOVERNANCE**

A CASE-STUDY OF AN ITALIAN MUNICIPALITY

**IL DOTTORE
SALVATORE GNOFFO**

**I COORDINATORI
CH.MO PROF. CARMINE BIANCHI
CH.MO PROF. ANTONELLO MIRANDA**

**IL TUTOR
CH.MO PROF. FEDERICO COSENZ**

**CICLO XXXIII
ANNO CONSEGUIMENTO TITOLO 2021**

«In senso proprio possiamo dunque parlare di potere solo quando siano dati due elementi: da un lato una vera energia, capace di modificare la realtà delle cose, e di determinare le loro condizioni e le loro reciproche relazioni; dall'altro una coscienza che ne sia consapevole; una volontà che stabilisca delle mète, una capacità che disponga della forza per raggiungere quelle mète.

Tutto ciò presuppone lo spirito, quella realtà che è nell'uomo ed è capace di sottrarsi alla immediata complessità della natura e di disporre liberamente di essa.»

“In a proper sense, therefore, we can talk about power only when two elements are given: on the one hand a true energy, capable of modifying the reality of things, and of determining their conditions and their reciprocal relationships; on the other hand a conscientiousness that is aware of it; a will that sets goals, a capability that has the strength to reach those goals.

All of this presupposes the spirit, that reality that is in human beings and capable of escaping the immediate complexity of nature and freely using it.”

Romano Guardini; *La fine dell'epoca moderna: il potere*; 1954, ©2015 Editrice Morcelliana, Brescia; pp. 118-119.

To Simona

Acknowledgments

A dedicated thanks goes to the University of Palermo for investing in my academic career and for the great opportunity to develop myself professionally and personally as a researcher.

Big thanks also go to Prof. Carmine Bianchi and Prof. Enzo Bivona for sharing their professional experience and academic knowledge during the overall doctoral course.

My sincere thanks go to Prof. Federico Cosenz for supervising my research work, supporting its development with useful advises, as well as for his enormous patience and kindness.

Finally, particular and heartfelt thanks are to Dr. Angelo Guerrera for his distinctive politeness, technical suggestions and, especially, moral support.

ABSTRACT

The main purpose of this research is to frame the possible causal relationships between corruption in public procurement and performance of local governments. With this aim, a fully-integrated research design is adopted to dynamically mix quantitative and qualitative methods at every phase of the research process.

The Dynamic Performance Management (DPM) and Governance (DPG) approaches, supported by in-depth interviews, formal modelling and simulations, are here adopted to analyse a representative case-study of an Italian small Municipality, where some corruption episodes in procurement activities occurred in the early 2000s. In particular, the local Authority in question was disbanded twice for mafia-like infiltrations and is currently facing a financial instability.

In the light of that, the overall work studies the possible outcomes of those facts on the organisational performance as a whole, based on three sources: qualitative primary data generated by face-to-face convergent interviews; secondary data retrieved from both documents describing legal cases and open-access repositories; an extensive literature review. At the beginning, a broad and composite literature overview helps the reader become aware about the contents, theories and boundaries of corruption. Thereafter, an examination of the most widespread measurement strategies and measures to either prevent or repress it is proposed. Overall, a special focus is set on procurement in local public contexts.

Following a discussion on the possible advantages and disadvantages of the most common public sector paradigms in terms of opportunities and constraints for corruption, the DPM and DPG views are explored to understand their theoretical contribution in supporting policy- and decision-makers to curb corruption phenomena in heterogeneous governance contexts.

Afterwards, based on coding techniques, an exploratory-descriptive approach of the selected case-study allows for a better understanding of the extent to which the investigated corruption events impacted on the overall performance of the Municipality under scrutiny over time, by means of non-structured face-to-face interviews held with some Public Officials in 2019.

Therefore, a system perspective in performance management is adopted to frame the emerging cause-and-effect relationships of the case-study. Assuming a DPM approach allows politicians and public managers to design, implement and assess feasible, effective and efficient anti-

corruption strategies at local government level. More precisely, the use in a DPM chart of performance drivers adjusted for the risk of corruption linked to its structural and individualistic causes may not only put right to ambiguities and flaws deriving from the adoption of ‘red-flags’ in public procurement, but also to failures of mechanical controls in detecting the actual presence of corruption, thus providing decision-makers with prompt signals arising from the emergent effects of clandestine practices. In addition, emphasising the role of community civic morality at system level may back up the understanding of some counterintuitive results in the past research on corruption in public procurement and deduce to what extent investments in Information and Communication Technologies (ICTs) and personnel training may enhance local government accountability and expertise.

With regard to managers’ and staff’s professionalism, as individualistic cause of corruption, political patronage stemming from legal opportunities results significant in explaining poor performance in public procurement over time. Within this framework, the DPM view also allows for better singling corruption out from resource waste due to non-corrupt actions.

In summary, a DPM approach may lead public managers to constantly maintain their ‘cognitive radar’ reactive, so as to identify and suppress unlawful practices in procurement, detect emerging malfeasances that could be otherwise overlooked by traditional static diagnostic and interactive approaches, foster ethical learning and enhance community outcomes.

Finally, the DPG perspective may be effective in supporting formulation and fine-tuning of collaboration-based anti-corruption strategies and probing their feasibility and impacts over time within local areas characterised by poor governance structures. Hence, on the basis of previous successful projects throughout the world, in the last part of this research thesis a DPG approach is used to outline and evaluate an anti-corruption strategy for the case under scrutiny according to collaboration settings, in a way to frame possible synergies and interdependencies among relevant participants as critical levers to hinder systemic risk of corruption at local level.

Keywords: corruption; corruption measurement; corruption causes; corruption theory; corruption models of analysis; small municipalities; local governments; financial distress; public procurement; patronage; community outcomes; planning and control systems; principal-agent theory; Dynamic Performance Management; System Dynamics; risk performance drivers; collective action theory; Dynamic Performance Governance; collaborative governance; content analysis; open coding; axial coding; thematic analysis; public administration; new public management; new public governance.

TABLE OF CONTENTS

List of figures	ix
List of tables	xi
List of abbreviations	xii

CHAPTER 1

RESEARCH BACKGROUND AND DESIGN

1.1 Research background	1
1.2 Research design	5
1.2.1 Research objective and questions	5
1.2.2 Research methodology: The Dynamic Performance Management and Governance approaches	7
1.2.3 Research strategy: The orthodox case-study, methodological choices and time horizon	9
1.2.4 Research philosophy	11
1.2.5 Research plan	13
1.2.6 Research ethics and data	14
1.3 Structure of the thesis	15

CHAPTER 2

FRAMING CORRUPTION: A LITERATURE OVERVIEW OF THE NATURE, THEORIES, CAUSES AND MODELS OF ANALYSIS

2.1 Introduction	17
2.2 Definition and general characteristics of corruption	18
2.3 The principal-agent theory	22
2.4 The collective action theory	26
2.5 Causes of corruption	28
2.5.1 Individualistic causes	28
2.5.2 Structural causes	29
2.5.2.1 Social and cultural traditions	29
2.5.2.2 Social and political institutions	31
2.5.2.3 Economic policy and structure	33
2.5.2.4 Juridical factors	35
2.6 Three main approaches for analysing corruptive phenomena	36
2.7 Corruption in local governments	37
2.8 Concluding remarks: The need for a systemic focus	40

CHAPTER 3

MEASUREMENT OF AND MEASURES AGAINST CORRUPTION IN PUBLIC PROCUREMENT

3.1 Introduction	42
3.2 Corruption measurement: Main practices and issues	43
3.3 Prevention and repressive measures against corruption	49
3.4 Process and procedures of public procurement and related risks of corruption	50
3.5 Red flags in public procurement: Prevalent literature and flaws	55
3.6 From a static to a dynamic perspective: Performance indicators to detect corruption	57
3.7 Closing remarks: The need for a causal and dynamic approach	61

CHAPTER 4

INTRODUCING THE DYNAMIC PERFORMANCE MANAGEMENT AND GOVERNANCE APPROACHES FOR DESIGNING AND IMPLEMENTING ANTI-CORRUPTION POLICIES

4.1 Introduction	63
4.2 Three performance management archetypes to cope with corruption	64
4.2.1 Old Public Administration, New Public Management and New Public Governance	64
4.2.2 Theoretical pros and cons of the OPA, NPM and NPG archetypes in dealing with corruption	70
4.3 The Dynamic Performance Management approach	76
4.3.1 The conceptual framework	76
4.3.2 Fundamentals of System Dynamics	79
4.4 Supporting the design and implementation of anti-corruption strategies through Dynamic Performance Management and Governance	84
4.5 Concluding remarks	87

CHAPTER 5

UNDERSTANDING THE IMPACTS OF CORRUPTION ON THE PERFORMANCE OF A LOCAL AUTHORITY: A QUALITATIVE APPROACH

5.1 Introduction	89
5.2 Financial distress of local governments and underlying causes: A literature overview	91
5.3 The case of Cerda Municipality	95
5.4 Research methodology: Thematic analysis and coding techniques	98
5.5 The non-structured, face-to-face, convergent interviews	100
5.5.1 Theme 1: The signals of the financial distress of the Municipality	100
5.5.2 Theme 2: The impact of the previous administrations' work on the current condition of the Municipality	103
5.5.3 Theme 3: Local political-administrative paradigm and level of citizen satisfaction	107
5.6 Finding a matching between wrongdoings and bankruptcy in the retrieved data	108

5.7 Conclusions	110
-----------------------	-----

CHAPTER 6

ANALYSING OUTCOMES OF CORRUPTION IN PUBLIC PROCUREMENT THROUGH DYNAMIC PERFORMANCE MANAGEMENT

6.1 Introduction	111
6.2 A literature overview of outcomes of corruption in public procurement and performance levers at local level	113
6.2.1 International research findings	113
6.2.2 Italian research findings	115
6.3 Problem statement: Debt procurement and corruption	116
6.4 Framing procurement corruption through DPM: The chart and model findings	119
6.4.1 Post-awarding and awarding phases	121
6.4.2 Evaluation phase	122
6.4.3 Pre-tendering and decision-making phases	124
6.4.4 Outcomes of procurement process on structural conditions allowing for corruption	128
6.5 Probing the cumulative impacts of corruption risks through model simulation	135
6.5.1 Experiment 1: Enabling risk of corruption at the pre-tendering stage	137
6.5.2 Experiment 2: Enabling risk of corruption at the pre-tendering and evaluation stages ..	140
6.5.3 Experiment 3: Enabling risk of corruption at the pre-tendering, evaluation and awarding stages	143
6.5.4 Basic run: Enabling risk of corruption along the overall procurement process	147
6.6 Reducing ambiguity of corruption in procurement by framing ‘civic morality’	152
6.7 Fostering professionalism and e-procurement: A policy suggestion	155
6.8 Concluding remarks	158

CHAPTER 7

FIDUCIARY PRACTICES IN HUMAN RESOURCE MANAGEMENT: AN OUTCOME-BASED DYNAMIC PERFORMANCE MANAGEMENT VIEW

7.1 Introduction	163
7.2 Problem statement: The resilience of political fiduciary practices	164
7.3 A literature overview of fiduciary practices: Italy at a glance	166
7.4 The dynamic hypotheses and the model structure	168
7.5 Explanatory model simulation: Basic run	176
7.6 Dealing with the past with an eye to the future: A composite policy package	183
7.7 Concluding remarks	187

CHAPTER 8

EXPERIMENTING WITH A COLLABORATIVE GOVERNANCE STRATEGY TO CURB CORRUPTION IN LOCAL AREAS

8.1 Introduction	189
8.2 Collaborative governance: An overview	191
8.3 Stakeholder engagement modes in anti-corruption initiatives	194
8.3.1 Main frameworks enabling collaboration against corruption	197
8.3.2 Failure factors of collaboration in anti-corruption projects	199
8.4 Local anti-corruption initiatives from the world	203
8.4.1 Overturning political culture and promoting citizen participation in La Paz, Bolivia ...	205
8.4.2 Involving citizens in decision-making in urban development processes in Guadalajara, Mexico	207
8.4.3 Active citizenship against endemic corruption in Lviv, Ukraine	207
8.4.4 Bottom-up local governance in Šaľa, Slovakia	208
8.5 Outlining a collaborative anti-corruption strategy for Cerda through a DPG approach	209
8.5.1 Stakeholder identification and analysis	209
8.5.2 Framing a possible anti-corruption policy through a DPG chart	212
8.5.3 Implementation feasibility and concerns	220
8.6 Academia as a ‘backbone organisation’ to enable anti-corruption collaborative governance	222
8.7 Conclusions	224
CONCLUSIVE DISCUSSION, LIMITS AND FUTURE RESEARCH	226
BIBLIOGRAPHY	231
LEGISLATION	255
JURISPRUDENCE	255
JUDGEMENTS	255
ADMINISTRATIVE DOCUMENTS	255
APPENDIX A. Transcription of the interviews with the Public Officials and standard informative paper	256
APPENDIX B. Model equations and documentation	265
APPENDIX C. Model validation tests	289

LIST OF FIGURES

– Figure 1.1. Research ‘onion’ for this research project. Source: Adapted from Saunders et al. (2019: 174)	11
– Figure 1.2. Research time frame through a Gantt chart	14
– Figure 1.3. The structure of the thesis	16
– Figure 3.1. Corruption probability depending on the number of providers and clarity of the object of procurement. Source: Author’s elaboration based on Rose-Ackerman (1975)	52
– Figure 3.2. The typical phases of public procurement. Source: Adapted from European Commission (2018: 16)	54
– Figure 4.1. The instrumental perspective of performance. Source: Adapted from Bianchi (2016: 73)	78
– Figure 4.2. The objective perspective of performance with three hypothetical macro-processes. Source: Graphic reworking of Bianchi (2016: 122)	78
– Figure 4.3. The subjective perspective of performance. Source: Graphic reworking of Bianchi (2016: 136) ..	79
– Figure 4.4. Examples of positive or reinforcing (a) and negative or balancing (b) feedback loops	80
– Figure 4.5. An example of an inflow accumulating into and an outflow draining a stock	81
– Figure 4.6. Representation of auxiliary (a) and exogenous (b) variables in a SFD model	82
– Figure 4.7. An example of a delayed effect of A on B	83
– Figure 4.8. Representation of a non-linear relationship (a) with an example of s-shaped graphical function (b)	83
– Figure 6.1. Accumulation over time (solid line) and trendline (dotted line) of the debt of Cerda Municipality. Source: Gnoffo (2021a: 77), based on the non-structured interviews with the Public Officials and the Special Management Commission of Cerda Municipality bankruptcy (pers. comm)	119
– Figure 6.2. The CLD of the causal relationships of corruption along the procurement process. Source: Author’s elaboration	122
– Figure 6.3. A DPM chart of the causal relationships of corruption along the procurement process. Source: Adapted from Gnoffo (2021a: 83)	127
– Figure 6.4. The CLD of corruption in the procurement process and the related outcomes. Source: Author’s elaboration	129
– Figure 6.5. A DPM chart of the causal relationships underlying the procurement outcomes linked to corruption. Source: Adapted from Gnoffo (2021a: 86)	131
– Figure 6.6. The SFD of corruption along the procurement process and the related outcomes. Source: Author’s elaboration	136
– Figure 6.7. Simulation of the effects of corruption in public procurement on the system. Period 1990-2020	148
– Figure 6.8. Simulation of the possible impacts of the procurement policy implementation in TIME = 30. Period 1990-2050	159
– Figure 7.1. The CLD of the political fiduciary practices. Source: Author’s elaboration	172
– Figure 7.2. The DPM chart of the political fiduciary practices. Source: Author’s elaboration	174

– Figure 7.3. The SFD of the political fiduciary practices. Source: Author’s elaboration	177
– Figure 7.4. Simulation of the effects of the fiduciary practices on the system. Period 1990-2020	179
– Figure 7.5. Simulation of the possible impacts of the joint implementation of the four policies in TIME = 30. Period 1990-2050	184
– Figure 8.1. The CLD of the collaboration-based anti-corruption agenda for Cerda Municipality. Source: Author’s elaboration	214
– Figure 8.2. A DPG chart of the collaboration-based anti-corruption agenda for Cerda Municipality. Source: Author’s elaboration	217

LIST OF TABLES

– Table 1.1. Pragmatic research philosophy in business and management research. Source: Adapted from Saunders et al. (2019: 145, 150-151)	12
– Table 1.2. Schedule of the intermediate research products and related processing time	13
– Table 3.1. Definitions of the most widespread perception-based corruption indexes	44
– Table 3.2. Advantages and disadvantages in using subjective and objective corruption measures	48
– Table 3.3. Four possible corruption measurement strategies. Sources: Monteduro et al. (2013: 23) and A.N.A.C. (2013)	49
– Table 4.1 The main contents of the OPA, NPM and NPG archetypes	70
– Table 4.2. Pros and cons of the three couples ‘public service archetype-corruption’	75
– Table 5.1. Themes, axial codes (or sub-themes) and open codes that can be traced back to the research question. Source: Gnoffo (2021b: 12)	101
– Table 6.1. Annual and cumulative certified debt of the insolvency assets. Source: Gnoffo (2021a: 77), based on the non-structured interviews with the Public Officials and the Special Management Commission of Cerda Municipality bankruptcy (pers. comm.)	119
– Table 6.2. Main feedback loops of corruption in the procurement process. Source: Gnoffo (2021a: 84)	123
– Table 6.3. Main feedback loops of corruption outcomes in the procurement process. Source: Gnoffo (2021a: 85)	130
– Table 6.4. Performance drivers linked to corruption in public procurement. Source: Gnoffo (2021a: 88)	134
– Table 6.5. Experiment no. 1: the values of the main stocks. Period 1990-2020	138
– Table 6.6. Experiment no. 1: the values of the performance drivers. Period 1990-2020	139
– Table 6.7. Experiment no. 2: the values of the main stocks. Period 1990-2020	141
– Table 6.8. Experiment no. 2: the values of the performance drivers. Period 1990-2020	142
– Table 6.9. Experiment no. 3: the values of the main stocks. Period 1990-2020	145
– Table 6.10. Experiment no. 3: the values of the performance drivers. Period 1990-2020	146
– Table 6.11. Basic run: the values of the main stocks. Period 1990-2020	149
– Table 6.12. Basic run: the values of the performance drivers. Period 1990-2020	150
– Table 6.13. Policy run: the values of the main stocks. Period 2020-2050	160
– Table 6.14. Policy run: the values of the performance drivers. Period 2020-2050	161
– Table 7.1. Main feedback loops of fiduciary practices in HRM	173
– Table 7.2. Model simulation results of the basic run. Period 1990-2020. Standard public positions = 74 people	180
– Table 7.3. Model simulation results of the joint implementation of the four policies. Period 2020-2050. Standard public positions = 74 people	185
– Table 8.1. Stakeholders’ profiles linked to possible anti-corruption policies for Cerda Municipality	212
– Table 8.2. Main feedback loops of the possible collaboration-based anti-corruption initiative in the Cerda’s local area	215

LIST OF ABBREVIATIONS

ACA = Anti-Corruption Agency
CA = Collective Action
CCI = Control of Corruption Index
CIPE = Center for Private Enterprise
CPI = Corruption Perceptions Index
CSO = Civil Society Organisation
CSQ = Civil Service Quality
DPM = Dynamic Performance Management
DPG = Dynamic Performance Governance
FCDE = Credit Fund of Doubtful Chargeability
GDP = Gross Domestic Product
GPA = Agreement on Government Procurement
ICT = Information and Communication Technology
IMS = Integrity Management System
IP = Integrity Pact
KPI = Key Performance Indicator
MCS = Management Control Systems
MGR = Manager
MSG = Multi-Stakeholder Group
NPM = New Public Management
NGO = Non-Governmental Organisation
OECD = Organisation for Economic Co-operation and Development
OLAF = European Anti-Fraud Office
OPA = Old Public Administration
P&C = Planning and Control
PA = Public Administration
PE = Public Employee
PM = Performance Management
PMS = Performance Management System

PPP = Public-Private Partnership

PRA = Probabilistic Risk Assessment

NPG = New Public Governance

RDD = Regression Discontinuity Design

RMS = Risk Management System

SFD = Stock-and-Flow Diagram

SD = System Dynamics

SGP = Stability and Growth Pact

TI = Transparency International

TPPCT = Triennial Plans for the Prevention of Corruption and the Transparency

TUEL = Consolidated Text of Laws on the Organisation of Local Authorities

UN = United Nations

CHAPTER 1

RESEARCH BACKGROUND AND DESIGN

1.1 Research background

Corruption occurs where public office (World Bank, 1997: 8) or, more in general, entrusted power (Transparency International, 2020a) is abused, misused or omitted for personal gain. It emerges where privates look for some kind of personal benefit that collides with regulation and social norms (Rose-Ackerman & Søreide, 2011: XIV), and usually persists in communities characterised by low rates of growth (Rose-Ackerman, 2006: XVI), poor levels of law compliance, transparency and accountability.

Corruption can both appear as a stand-alone episode at individual level and systematically involve group of people in an organised fashion (Bac, 1998: 101). It has context-specific aspects, assumes different features and spreads in different ways (Lambsdorff & Schulze, 2015: 101). As such, it is considered as pertaining to ‘wicked problems’, which disclose complexity and dynamicity, and contemporary involve different actors, levels and sectors (Head & Alford, 2013; Laegreid & Rykkja, 2014), such that there are not ultimate approaches, best ways to frame and permanent solutions to fix them, respectively (Bianchi, 2016: 61).

In public management, research on corruption is huge and has greatly made use of the traditional statistical and econometric methods to mainly investigate the phenomenon at macro level – see, for instance, Ades and Di Tella (1997); Mauro (1995, 1997); Tanzi and Davoodi (1997). This has resulted in a scarce empirical evidence in micro-level – i.e., organisational – corruption literature, albeit civil servants and public institutions should deserve special attention (Meyer-Sahling, Mikkelsen, & Schuster, 2018). Public agencies have to be guarantors of ethics (Boardman & Klum, 2013), but local governments represent the cornerstone of public service integrity as, producing a significant impact on the daily lives of citizens, constitute the most evident form of public governance systems (Masters & Graycar, 2016: 46).

Uncontrolled misuse and diversion of public resources for private advantage in local realities is not without consequences. In Italy, it has implied the loss of trust in civil servants by citizens and encouraged hyper-regulation and formalism to reduce inefficiencies and illegal

acts (Fantini & Simonetti, 2017: 27-28). What is more, maladministration and misappropriation of public resources undermine the public interest by causing many visible failures in the delivery of good governance to communities (Gardiner, 1978), which inevitably suffer the consequential economic and wealth losses (Liu, Moldogaziev, & Mikesell, 2017: 681). Notably, one of the principal outcomes produced by corruption at local level is the redefinition of expenditure priorities that subsequently causes an enormous dispersion of public resources and the shift of significant part of spending charge onto who cannot have access to goods and services privately (Robinson, 2006: XIV).

Over the last thirty years, several Italian municipalities showed serious financial problems, especially small municipalities localised in the Sicilian region (Ca' Foscari University of Venice, 2021). Such financial instabilities are usually explained by structural shortages in tax collection processes and the consequential impossibility to provide citizens with adequate services. Nevertheless, Italy has always been threatened by the presence of organised crime that easily makes use of corruption practices and tools to reach its vile purposes. The influence of organised crime in a territory exacerbates the risk of corruption and influences the capability of local governments to foster sustainable development of the served communities, provided that criminal insinuations in public administrations (PAs) exercise pressing conditioning and compromise the efficient, sound and regular management of public bodies themselves. As such, the study of possible connections between corruption and performance of local realities characterised by poor governance cannot be ignored any more.

In coping with corruption, the role of governance is crucial in developing decisive policies and strategies (Fukuyama, 2005: XI). Especially at local government level, this requires the adoption of appropriate performance management tools to enable possible interventions against the problem in object and elicit cultural change where formal rules and routines are inclined to encourage corrupt behaviours. Thus, performance management systems (PMSs) may reveal themselves as strategic in overcoming common shortcomings of corruption detection and measurement, as well as in supporting planning and control (P&C) processes to successfully prevent and repress the negative outcomes associated to illicit practices.

Curbing corruption requires to single specific configurations out from other possible forms (Klitgaard, Maclean-Abaroa, & Parris, 2000: 27), so as to avoid confusing endeavours being lacking in vigour. Accordingly, procurement represents one of the most significant activities of local governments damaged by corruption (World Bank, 2007: 7) due to the considerable amount of money involved (Strombom, 1998: 22). At any level, it is an activity that transversally regards any area of public intervention and governmental department, such

that it has evident connections with several other public management fields and produces visible outcomes on the effectiveness and efficiency of public service delivering.

Knowledge about outcomes of corruption may enable policy- and decision-makers to: deploy resources to intervene in risk areas; evaluate public sector effectiveness; increase efficiency in procurement budgeting; clearly define accountabilities of civil servants; foster institutional trust among citizens (Hatry, 2003: 142-143). Within this framework, an *outcome-based* perspective of performance may allow for figuring out feasible policy alternatives aimed at curbing corruption and restoring local governments' capability to provide their communities with high-quality services, improve their quality of life and enhance their trust in government.

The outcome perspective focuses on the impacts of public administration operativity on the context beyond the organisational boundaries (Borgonovi, Anessi-Pessina, & Bianchi, 2018: XI). In particular, this approach allows for analysing end-results of the management process that, on the one hand, indicatively measure the performance of organisations as a whole and, on the other hand, represent flows varying the set of resources considered strategic for their goals that cannot be acquired by recurring to the market (Bianchi, 2016: 73).

Some significant contributions in the literature on community outcomes of corruption in public procurement have been proposed – see, for instance, Basheka (2009); Basheka, Oluka, and Karyeija (2013); Basheka, Oluka, and Mugurusi (2015); Coviello and Gagliarducci (2017); Odeku (2018). However, the empirical research on this topic does not contemporary adopt a systemic, dynamic and causal approach of outcome-based local public performance.

On the light of what above, the first part of this research project explores the meaning and characteristics of corruption, its general causes, models of analysis and background theories; the issues in its measurement, the possible measures to take on to curb it, as well as in presence of which public management archetypes it may theoretically either take advantage or be opposed. Most importantly, shedding the lights on the prevalent literature about the general phenomenon of corruption is useful – and necessary as well – to highlight the ontological aspects of it and, as a result, to set up the conceptual boundaries of the present study. Indeed, corruption can assume different, broad or narrow meanings in function of economic, social and legal premises, and may overlap with other kinds of crimes¹.

¹ For instance, corruption is different from organised crime, but this last can make use of corruption for its purposes. For more details about organised crime, see European Commission & Europol. 2001. Annual European Union Organised Crime Situation Report. data.consilium.europa.eu/doc/document/ST-10415-2000-INIT/en/pdf; European Commission and Europol, United Nations. 2004a. United Nations Convention Against Transnational Organized Crime and the Protocols Thereto. In U. Nations (Ed.), vol. 55/25, 55/255. New York: United Nations Office on Drugs and Crime, Vienna.

Thereafter, the research sets the focus of study onto the specific form of illicit practice for private benefit in public procurement. Management aspects on the conditions and impacts creating opportunities for malfeasances and facilitating the diffusion of corruption are, then, explored through a real case of an Italian small municipality, which experienced corruption in public procurement and, in addition, it is currently dealing with an important financial instability. Coherently with the outcome-based perspective mentioned above, the scope of the research is not circumscribed to the organisational boundaries of the municipality, but it also includes the exploration of the impacts on the served community's wealth over time.

With this aim, a DPM approach (Bianchi, 2016) was adopted for capturing the system feedback processes, behavioural non-linearities and delays concerned with the case under analysis, so as to reproduce the dynamicity, systematicity and complexity of the problem at hand. Such an approach made also possible to create a simulation model that provided for some insights on the impacts over time both of certified wrongdoings of public knowledge and possible policies and managerial choices on the performance of the studied municipality.

If concretely implemented, a DPM chart may provide local governments policy and decision-makers with important information for proper use of strategic resources and allow them to strategically prevent, monitor, assess and intervene against malfeasances in public procurement. This applies not only to corroborate to what extent possible illicit practices produce negative effects on organisational performance, but also to investigate the causes underlying them, which are often blurred or even disregarded just because linked to legal political practices or managerial tools.

Public entities are expected to comply with national regulation on corruption prevention, often overlooking cultural factors that may even change within the same regional area. As such, albeit aimed at warding corruption off, preventive and repressive countermeasures may not be effective if local governments act alone. More precisely, the exclusive commitment of public bodies may produce desired outcomes in the short-term only, since the resilience of pathological management paradigms, enabled by cultural beliefs and traditions, may make any normative tool ephemeral.

In general, wicked problems cannot be fixed completely by means of the simplistic adoption of strict rules and protocols, which may paradoxically increase organisational complexity and even favourite malfeasances. Differently, tangled socio-economic issues often require deliberated, accountable and joint decision-making processes including community stakeholders, whose efforts are essential for successful anti-corruption interventions by virtue of the ownership of tangible and intangible resources that represent strategic crossroads of

collaborative synergies. The most significant premise, however, is that a collaborative anti-corruption approach may not always be a good solution due to the likelihood of confidence relationships – upon which the collaboration builds on – that may unintentionally favourite collusion between participants and cheating.

Based on what above, an experiment with a collaborative governance strategy through a DPG view is proposed at the end of this research project. DPG represents an extension of the DPM perspective, since, in relation to a wicked problem, it adopts a focus going beyond the organisational boundaries and includes the synergies and interdependencies with and between relevant external actors in achieving collective goals purposefully. The creation of policy networks may result effective to handle context-specific cultural, economic, social and political issues being crucial to prevent and tackle corruption, especially in presence of public contexts that are notably vulnerable to poor governance mechanisms.

1.2 Research design

Albeit a local system shows apparent and incontrovertible pathological conditions, corruption prevention and repression can be promoted by following some ideal steps (Monteduro et al., 2013: 17), that is:

- i. making the comprehension of its causes as clear and deep as possible;
- ii. providing for reliable measurement and evaluation strategies and tools of the phenomenological magnitude;
- iii. endeavouring reliable estimations of its effects;
- iv. defining strategies and adopt tools appropriately, even by basing on international experiences.

These four points constitute the fundamental guidelines of the research design.

1.2.1 Research objective and questions

The aim of this research project is to explore, describe and explain the possible relationships between corruption in public procurement and performance of local governments by designing a DPM and a DPG model able, on the one hand, to capture, explain, and analyse the resulting structure of behaviour and, on the other hand, to support policy-makers and public managers in setting and assessing effective strategies to prevent corruption and counteract the associated negative implications over time.

This research work mainly adopts a *combined study* method research design (Saunders et al., 2019: 188), which sequentially uses an *exploratory*, a *descriptive*, an *explanatory* and an *evaluative* approach. Accordingly, the exploratory perspective (Saunders et al., 2019: 186-187) is adopted at the beginning of the research and represents an essential premise to:

- enlighten the nature of corruption, its causes, theories and models of analysis;
- avoid confusion with other forms of crime and, therefore, outline the boundaries of the analysis;
- identify measurement concerns and select an effective methodological strategy being suitable to improve corruption measurement and understanding.

Thereafter, an exploratory-descriptive approach provides for a detailed profile of the past and the current situation of the system under scrutiny (Saunders et al., 2019: 187-188). As such, it enables the building process of the model structures proposed here. It follows an explanatory study (2019: 188) to identify and model the cause-and-effect relationships between the variables being linked to corruption and affecting local government performance over time, in a way to suggest possible anti-corruption policies. Finally, an evaluative study (2019: 188) is conducted to assess feasibility, concerns and outcomes of a possible collaboration-based anti-corruption initiative at local level.

In the light of what above, the main research questions are the following:

- i. How to define corruption in public domains? What is the state of the art in this specific research field? What are the main gaps in framing this phenomenon?
- ii. Is it possible to measure corruption? What are the advantages and shortcomings of the extant approaches to detect corruption practices generally, and in public procurement corruption specifically?
- iii. To what extent may the dynamic performance management and governance views provide for more effective frame of corruption at local level? How do such perspectives work in different public governance settings?
- iv. Among its multiple forms, how does corruption in public procurement impact on the financial instability of a local government? To what extent may a dynamic performance management approach support policy-makers and public managers to better frame mechanisms and drivers leading to corruption in public procurement? What are the implications emerging from its application in terms of preventive and repressive countermeasures, respectively?
- v. What are the causal interdependencies and the main decisional levers enabling a potential anti-corruption collaborative governance strategy based on the dynamic performance

governance approach? What are the roles played by the policy-network participants in designing and implementing such a strategy?

The fourth research question is actually declined into specific sub-questions being linked to the selected representative case-study, whose choice is exhaustively explained below.

1.2.2 Research methodology: The Dynamic Performance Management and Governance approaches

As claimed above, empirical research on the impact of corruption in public procurement on local government performance is very limited (Basheka, 2009), such that country (Ntayi, Ngoboka, & Kakooza, 2013; Sargiacomo, Ianni, D'Andreamatteo, & Servalli, 2015; Siddiquee, 2005) and cross-country-based studies (Cordis & Milyo, 2016; D'Souza & Kaufmann, 2013) actually prevail.

The relationship between corruption in public procurement and performance of local governments is broad and it has mainly been explored statically through efficiency-based proxy measures. Studying the possible presence of malfeasances through prices, thresholds in public contracting, competition degree in tendering, level of public servants' discretion and so forth, is of course relevant in public procurement, since it is important both in terms of economic efficiency and of quality of public purchasing (Domberger & Jensen, 1997). Nevertheless, statically investigating these elements may reconduct to some issues in corruption measurement through objective parameters (Monteduro et al., 2013). In particular, it may be misleading because of unforecastable and sometimes contradictory circumstances that, despite desirable levels of competition and prices, do not exclude the presence of corruption in a system – see, for instance, Finocchiaro Castro, Guccio, Pignataro, and Rizzo (2018).

Costanza and Ruth (1998: 183-184) argue that statistical methods typically rely on quantification of relationships among the system elements based on cross-sectional data and historical series. As such, they are constrained in giving insights on the possible future evolution of a system according to alternative management configurations, since their results are driven by data and criteria which, on the one hand, are useful to gain information on historical or punctual empirical relationships, but, on the other hand, are not able to appreciably identify new appropriate paradigms to foster system change².

² On the topic, see also Allen, P. 1988. Evolution, innovation and economics. In G. Dosi, C. Freeman, R. Nelson, G. Silverberg, & L. Soete (Eds.), *Technical change and economic theory*. London: Pinter.

Although one must recognise the appreciable attempt of statistics in formulating models analysing cause-and-effect relations among system variables (Granger, 1969) – for instance, see Ribeiro, Alves, Martins, Lenzi, and Perc (2018) –, it does not seem to be always suitable to support the exploration of context-specific, dynamic and complex phenomena, such as corruption. Indeed, the static nature of those models is such that the relationships under investigation in presence of combinatorial complexity are assumed to remain more or less stable over the considered time lapse (Bianchi, 2016: 3, footnote 5). As a result, they are useful to measure the overall weight of corruption at macro level, but fail in capturing the presence of non-linearities, delays and feedback loops – i.e., its dynamic complexity (Senge, 1990; Sterman, 2000) – in those interrelations. It follows that possible anti-corruption interventions designed by means of findings abstracted from the processes they stem from may be ineffective or even produce unintended impacts over time. Thus, in order to face the above critical issues, an attempt to combine system perspective and context-specific analysis is needed.

Based on what above, this research project adopts a DPM perspective, which stems from the System Dynamics (SD) methodology (Forrester, 1961) and stretches out the financial-based and static approach of the conventional PM tools that often miss the significant connection between outputs and outcomes due to the exclusive and bounded organisational perspective (Bianchi, 2016: 20). In particular, based on a cause-effect approach, to design and implement PMSs according to a dynamic point of view allows for singling out and analyse end-results, performance drivers, and accumulation and deploy processes of relevant strategic resources (Bianchi, Cosenz, & Marinković, 2015: 2).

In the public field, policy-makers may adopt symptomatic solutions to tangled issues, as well as only focus on inputs and not also on outcomes (Bianchi, 2016: 61). Accordingly, political reforms, performance management and cultural levers (Borgonovi, 2005) may take advantage of the integration of an outcome-based perspective at the extent to which it:

- makes reforms more understandable and desirable by stakeholders;
- versatilely includes the key-actors over time;
- makes PMSs more flexible and pervasive in assessing policy trade-offs and sustainability – both in time and space – through coherent outcome performance indicators;
- fosters insightful broad-range collaborations with both inter-institutional and non-governmental actors, whose involvement is significant in terms of system structure generating observed behaviours (Bianchi, 2016: 63).

More in particular, to adopt a DPM approach makes possible to:

- provide adequate support to manage strategic resources, measure and keep under control the key performance variables and end-results that could be affected by corrupt behaviours over time;
- guide policy- and decision-making processes of organisational areas being particularly prone to corruption under a perspective of sustainability;
- enable public bodies to capture delays between the moment when a corruption event occurs and the moment when its effects on organisational performance come through;
- foster an ethical learning-oriented approach (Bianchi, 2016: 63) and identify responsibilities in particular corruption episodes;
- support anti-corruption strategic planning in local governments according to a holistic perspective, in a way to boost performance in specific organisational areas that actually require it;
- facilitate communication between policy-makers and public managers, as well as between them and all relevant interlocutors inside and outside the interested organisation.

This last feature is crucial for enabling planning processes that involve multiple stakeholders and setting effective whole-of-government strategies against corruption in local areas, as an *outside-in* perspective of DPM (Bianchi, Bereciartua, Vignieri, & Cohen, 2019) – i.e., DPG – may support possible policy-network participants to identify, share and deploy resources being considered strategic in curbing local corruption jointly.

1.2.3 Research strategy: The orthodox case-study, methodological choices and time horizon

Given the strongly context-dependent nature of corruption and its high-level complexity, the case-study research strategy (Saunders et al., 2019: 196-199), combined with formal modelling, was chosen. In particular, the specific case was selected because it is representative of the most common corrupt behaviour in local governments and it has given the opportunity to the researcher to both approach the people who lived through the problem under examination directly and develop a detailed inquiry into the corrupt phenomenon in its real-life environment (Robson, 2002; Yin, 2018). As such, the research strategy configures a ‘phenomenon replicating explanation’ (de Gooyert, 2018: 657).

The empirical investigation appears particularly suitable when one wants to acquire a detailed understanding of a ‘wicked’ problem within specific contexts (Morris & Wood, 1991). Coherently with what Yin (2018) argues, this kind of strategy allowed for exploring, describing

and explaining the phenomenon under study and its effects on local performance, according to a realistic perspective.

At the aim to frame the analysed problem, this research adopts a combination of heterogeneous qualitative and quantitative data sources, collection methods and processing. In fact, SD – therefore, DPM and DPG as well – can support the elaboration of both qualitative and quantitative models (de Gooyert, 2018: 656), so that a ‘fully integrated mixed method research design’ enhanced the understanding and portraying of the problem, by dynamically mixing quantitative and qualitative methods at every stage of the research process (Saunders et al., 2019: 183). This choice was made to reduce the risk of mistakes in interpreting causalities among variables, as well as to corroborate the meaning of data and foster relevance and consistency of findings iteratively (Tashakkori & Teddlie, 2003).

Accordingly, this research relies on two main tool categories, which were used iteratively along the overall research process, that is to say:

- primary data that was autonomously produced from non-structured, face-to-face, convergent interviews;
- secondary data retrieved from multiple-sources.

In particular, qualitative primary data was generated by non-standardised in-depth interviews – i.e., ‘face-to-face convergent interview’ (Dick, 1998) – with apical Civil Servants of the Municipality chosen as a representative case-study, according to specific interviewee selection criteria (Zhang & Shaw, 2012: 8-10). The interviewees were made able to talk freely in the first part of the meetings and answer to probing questions in the second part of them (Saunders et al., 2019: 436-444). In this way, they provided for useful stories, examples, clarification, data, definitions, patterns and insights allowing for searching and testing dynamic hypotheses of the problem at hand (Luna-Reyes & Andersen, 2003: 280-281).

Thereafter, a process of thematic content analysis (Boyatzis, 1998), based on open (Corbin & Strauss, 2008: 2) and axial coding techniques (2008: 27), allowed to clarify the meanings of the information retrieved from the mentioned interviews, as well as to combine and group terms and arguments according to internally-consistent schemes of meaning.

The primary data was aimed at corroborating the meaning of the secondary one retrieved from heterogeneous sources, such as documents describing legal cases, public balance-sheets and open-access repositories of official statistical Italian institutions – in particular, ISTAT and SIOPE. Such a typology of data was essential to explore, describe and explain the analysed phenomenon (Saunders et al., 2019: 348-351) and, in addition, to quantify

the exogenous and initial variables of the models. Indeed, the use of both statistical and judgmental estimations (Sterman, 2000: 867) constitute a reliable choice in parameter assessment test (Barlas, 1996; Sterman, 2000).

Last, along the development stages of the model building process, some informal ‘disconfirmatory assessment interviews’ (Andersen, Luna-Reyes, Diker, Black, Rich, & Andersen, 2012) were held according to the needs of the case with relevant municipal key-actors, in order to enhance the reliability of the models.

Overall, the research choices described above were applied within a longitudinal time horizon (Saunders et al., 2019: 212). This has the advantage to observe and study the change and development of events over time, so as to allow researcher to control the studied variables (Adams & Schvaneveldt, 1991).

1.2.4 Research philosophy

The resulting research design is representable by means of the ‘research onion’ provided by Saunders et al. (2019) and illustrated in Figure 1.1.

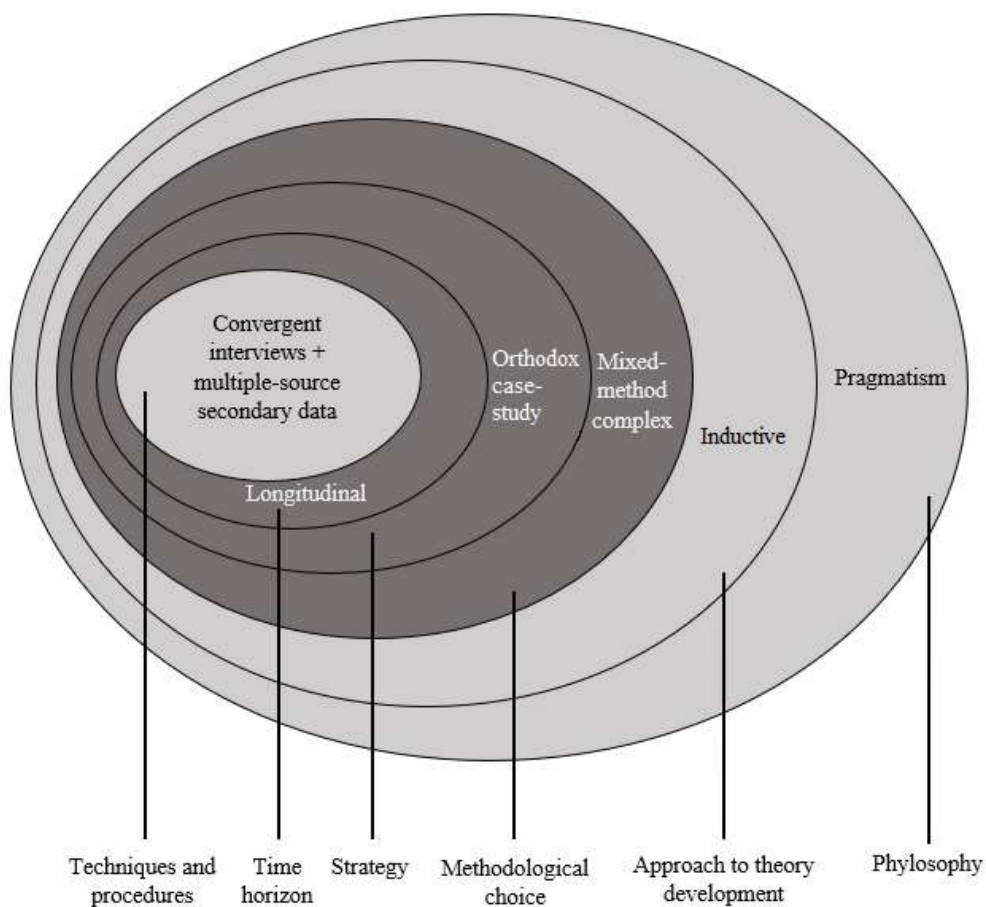


Figure 1.1. Research ‘onion’ for this research project. Source: Adapted from Saunders et al. (2019: 174).

It was useful to specify the central part of the research design before to explain what kind of paradigm and approach were assumed in this project. This made possible to provide the readers with a detailed overview to understand the main pillars of the research design.

The emerging paradigm for the purpose of this research is *pragmatism* (Saunders et al., 2019: 150-151). As any research philosophy, this one can be analysed basing on four aspects (Saunders et al., 2019: 133-134) – see Table 1.1 –, namely:

- *ontology*, which concerns with the nature of reality and how the system actually works;
- *epistemology*, which is related to what represents acceptable knowledge with reference to the specific research;
- *axiology*, which refers to the study of judgement about values;
- *typical methods* adopted.

Table 1.1. Pragmatic research philosophy in business and management research. Source: Adapted from Saunders et al. (2019: 145, 150-151).

Ontology	Epistemology	Axiology	Typical methods
The reality is made of experiences, processes and practices, and it is assumed to be complex and the corollary of ideas.	Knowledge and theories are valuable in function of the investigated problem and the environment where it occurs, as well as of their capability to make actions successful and provide useful contributions for the future research.	The researcher's system of values, background and beliefs guide the overall research process.	The significance of solutions to the problem to fix and the related outcomes prevail, with the awareness that a single problem can be analysed and faced by means of several, qualitative and quantitative approaches, methods and tools.

For each of them, there exist both an objective and a subjective aspect. The first one considers that entities exist in the reality regardless of actors concerned with their existence, while the subjective one assumes that phenomena are created by perceptions and consequent actions of actors themselves (Saunders et al., 2019: 134-138). On the basis of these parameters, it is possible to provide for some insights about the way to approach the present research.

Firstly, the usefulness of pragmatism in analysing corruption is such that both the objective and subjective views matter as, on the one hand, the phenomenon is usually analysed under the form of pure perception because of its clandestine nature but, on the other hand, it can also be detected by adopting objective techniques relying on valuable proxies and experiences. As such, by integrating both the aspects, it was possible to improve the reliability of data interpretation linked to the phenomenon at hand. Secondly, values shine through the research project itself, since they guide human action (Heron, 1996). Interpreting data and

results according to the values emerging by directly approaching people concerned with the specific case-study reduced the risk of deceptive understanding of the information retrieved by both convergent interviews and multiple-source secondary data. In this way, subjective and objective profiles corroborated and supported each other in a credible way.

Finally, the scientific approach adopted is inductive (Saunders et al., 2019: 154-155), since it allowed the researcher to:

- understand problem and its internal causalities by involving empirical concepts, data and variables;
- express them in operational terms, in a way to gain new knowledge on the system under study;
- reason on the dynamic hypotheses critically by also taking into consideration interviewees' experiences, interpretations, and beliefs;
- analyse the system behaviour and, through an exam of the possible outcomes, suggest some feasible policies.

1.2.5 Research plan

The research project was conducted on a full-time basis with a minimum of 35 hours per week. The time span for undertaking the research overlapped with the duration of the PhD course, that is three years. The evolution of the research work is depicted in Table 1.2.

Table 1.2. Schedule of the intermediate research products and related processing time.

Year	Processing time	Intermediate product
FIRST	1 st trimester	First draft of the literature review
	2 nd trimester	Development of possible research trajectories
	3 rd trimester	Formulation of feasible research objectives and questions; selection of the research strategy and methodology
	4 th trimester	Draft of the first part of the thesis
SECOND	1 st trimester	Investigation of the case-study
	2 nd trimester	Data negotiation and collection through convergent interviews
	3 rd trimester	Data analysis and first rough results
	4 th trimester	Draft of the second part of the thesis and paper proposal for submission
THIRD	1 st trimester	Refinement of the literature review
	2 nd trimester	Review of the research findings
	3 rd trimester	Refinement of the formal structure of the research thesis
	4 th trimester	Presentation of the final research and paper proposal for submission

Figure 1.2 shows the research time frame through a Gantt chart (Denscombe, 2012: 112).

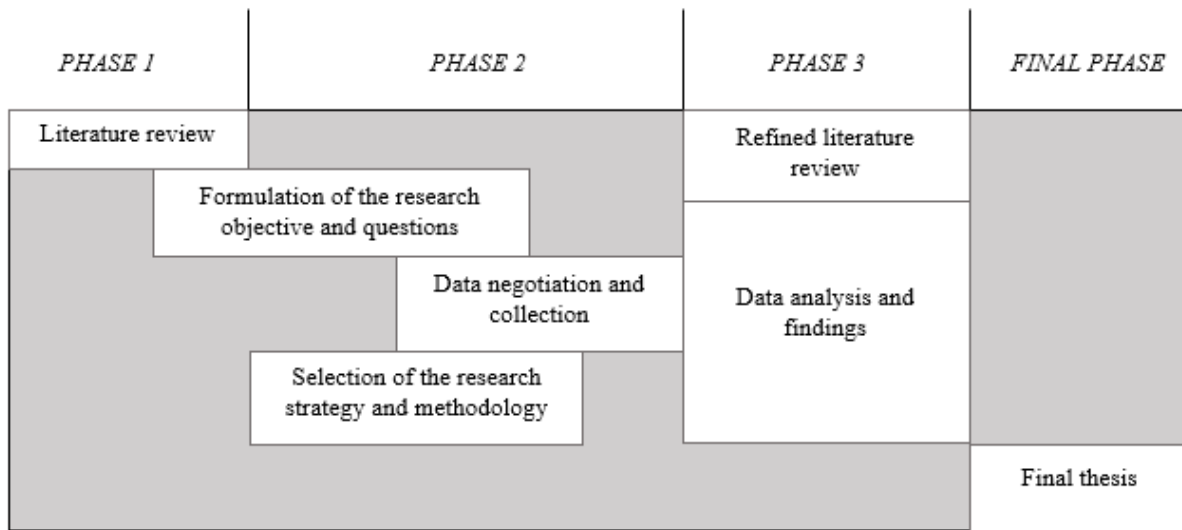


Figure 1.2. Research time frame through a Gantt chart.

1.2.6 Research ethics and data

The focus of this research is strictly managerial, and it does not stress on the individuals who may be concerned with the problem statement. It is based on objective facts which were ascertained by the Italian Magistrates Courts and emerging from official documents being publicly available and corroborated by the convergent interviews with the municipal Public Officials held in 2019. As a result, this research neither wants to be defamatory towards specific individuals nor towards the Municipality itself, since its purpose is academic only.

Given the sensitive topic, information obtained from the interviewees has not been and will not be used for purposes different from the research objectives of the present thesis, of all the scientific articles linked to this manuscript and of any other literary work written or edited by the author. No reference to specific persons was intentionally made and the interview output was entirely paraphrased by using notes taken during the meetings and opportunely integrated with information present in legal documents.

The interviewees had the faculty to withdraw from the interview in any moment together with the provided information. The purpose of the research and the use of information retrieved from the interviews was made transparent to all participants via standard informative paper – see Appendix A. Finally, to ensure complete transparency, the data and information based on which this research develops are fully available in this thesis.

In order to search for relevant literature, this research project made use of Elsevier's Scopus, Clarivate's Web of Science and Google Scholar web engines. In addition, it adopted a 'reference-from-reference' strategy to include the relevant research material.

Data and information used in this research project are retrieved from official public sources, such as judgements, public budgets, financial statements and open-access repositories of specialised Italian institutions, which are publicly accessible.

For the building and simulation processes of the models, Powersim's Studio 10 Academic, version 10.14.5555.6, and Ventana Systems' Vensim PLE for Windows, version 7.3.5, were used.

1.3 Structure of the thesis

Figure 1.3 shows the structure of the thesis according to the research design described above. In particular, given the combined nature of the research design, the specific approach of research adopted in each chapter is emphasised, together with the main methodological choices and data sources.

Each chapter endeavours to answer the research questions highlighted in the subparagraph 1.2.1 on the basis of the systematisation below:

- Chapter 2: research question *i*;
- Chapter 3: research question *ii*;
- Chapter 4: research question *iii*;
- Chapters 5, 6 and 7: research question *iv* – further detailed in function of the case-study;
- Chapter 8: research question *v*.

CHAPTER 2

FRAMING CORRUPTION: A LITERATURE OVERVIEW OF THE NATURE, THEORIES, CAUSES AND MODELS OF ANALYSIS

2.1 Introduction

As argued by Anthony (1965: 2-3), to single-out a framework constituted by topics and sub-topics in relation to a particular subject allows researchers to outline the boundaries within which relevant statements and generalisations are valid and significant, as well as research results pertinently apply. Corruption is an ample topic, subjected to continuous evolutions and analysed under disparate perspectives in heterogeneous fields of knowledge. Specific forms of corruption are also characterised by unique peculiarities, origins and dynamics. Nonetheless, common traits and premises always remain valid for whatever form of this phenomenon, so that it is possible to attribute specific kinds of malfeasance within a clear theoretical framework and, as a result, exclude others from it.

In this research project, corruption phenomena are investigated under a *performance management* perspective and, as such, it adopts broad identification criteria of what illicit acts can be actually considered as corrupt in relation to their capability to directly or indirectly affect infra-, inter- or supra-institutional objectives and goals. This may imply that such criteria may differ from the ones of other fields of study, being they focused on other cognitive objectives, metrics and value judgments. In making this clear, it is therefore necessary to put readers in the best position to better understand this ambiguous phenomenon through an analysis of its fundamental elements, features, dynamics and approaches adopted in the prevalent literature.

Accordingly, the present chapter is aimed at clarifying the nature, meaning, main theories, causes and analytical approaches of corruption, in a way to answer the questions: *How to define corruption in public domains? What is the state of the art in this specific research field? What are the main gaps in framing this phenomenon?*

Particularly, in the first part, this section meticulously explores the general meaning of corruption and its essential facets according to the traditional way to define its characteristic behaviour of voluntary and aware deviation from formal duties for private interests. Then, the principal-agent and collective action theories are explored as main frameworks according to which corrupt phenomena are understood.

In the second part, this chapter explores the individualistic and structural causes of corruption and the main political-administrative models to analyse it (Vannucci, 2015). It finally narrows the focus on local government level, emphasising how the issue needs a systemic approach both at organisational and at community level.

2.2 Definition and general characteristics of corruption

Corruption has plagued human society since the most ancient governments and remains one of the most important economic, social and political diseases of the modern age (Campos & Pradhan, 2007: 2). It is nowadays considered a quite complex phenomenon to hinder (Cosenz & Noto, 2014: 239), as it owns disparate features, assumes different aspects in the environment where it occurs and can refer to a broad range of activities (Morris, 2011: 10).

Despite it is a debated topic in several subject areas (Allegrini, Lai, & Cecchetti, 2018: 167), corruption phenomenon is not simple to define. It is important and rampant throughout the globe (Shleifer & Vishny, 1993: 599), but whatever possible univocal meaning has been deeply contested (Dawood, 2014: 104). In spite of the enrichment of knowledge about its nature and mechanisms, it is still not enough to acquire a sufficient and comprehensive understanding of its dynamics due to the fact that corrupter and corrupted are two figures evolving over time (Transparency International Italia, 2017: 4).

Identifying corruption turns out to be a not simple exercise, since it can involve both acts of omission and commission – i.e., abuse or misuse –, as well as legal and illegal activities (Klitgaard et al., 2000: 2). Furthermore, as it is highlighted by the Council of Europe, there is not an univocal and universally-accepted definition that is valid for all forms and levels of corruptive behaviour in all the jurisdictions around the world (World Bank, 1997: 20).

Therefore, to realise a comparison between both a case of crime and another, as well as to collect data that are comparable across several countries, is an activity requiring high levels of carefulness (Rose-Ackerman, 2006: XXI). It is various and variable in time and space and not always possible to detect systematically, because it is clandestine due to its illicitness (Lambsdorff & Schulze, 2015: 100). As such, it is a context-specific phenomenon because of its changeable causal factors, specific national regulations and, above all, people's culture about what it is actually an unethical behaviour and what is not (Davis, 2009: 319).

The term 'corruption' has ancient roots and derives from Latin *cum* and *rumpere*, which mean 'to break together' (Ferrante & Vannucci, 2017: 33). In a broader sense, even if there is not general agreement, it may also be extensively labelled as 'maladministration' (2017: 30)

or ‘bad governance’, comprehensively including every act being not compliant with sound administration.

Past research provided disparate conceptualisations of corruption, with the emphasis, respectively, to the public office, to the public interest or to the market (Philp, 1997). According to Leff (1964: 8), corruption can be intended as an extra-legal institution through which individuals or groups of people try to acquire supremacy over administrative structures. However, most of the definitions is referred to the public field. For instance, Nye (1967: 416) and Huntington (1968: 59) state that corruption phenomenon represents a behaviour deviating from accepted rules and formal obligations of public charges due to private advantages and, as such, it discloses a lack of effective political institutionalisation. Coherently with that, Shleifer and Vishny (1993: 599) compare corruption to a commercial transaction of government property by public officials for private purposes.

With an international focus, a comprehensive definition is provided by the OECD (1997: 7), which posits that corruption constitutes a criminal act of whoever intentionally – personally or indirectly – offers, promises or grants any undue benefit to a foreign public official in exchange for either an omission or a commission in his/her formal duties to obtain private advantages in managing international businesses.

Whatever territorial extension is considered, it is definitely possible to affirm that the mainstream definition of corruption is the improper use – or abuse – of public power for personal benefit (World Bank, 1997: 8), broadened by the more general ‘entrusted power’ instead of the bounded ‘public office’ by Transparency International (2020a) at the aim to also include any relevant occurrence in the private sector (Pope, 2000: 2).

Nevertheless, given that the most important difficulty in studying corruption is to ascribe an univocal identity to the phenomenon (Jain, 2001: 73), identifying its nature and common characteristics to explain this broadly accepted definition is the favourite solution among academics, professionals and international organisations. At this regard, Ferrante and Vannucci (2017: 16-23) single-out three fundamental ‘realities’ of human being dimension that corruption unavoidably degrades, that is: a power delegated ‘to us’ or ‘from us to others’; the trust outlining the written and non-written boundaries within which the entrusted power can be exercised; to give the power in custody for its safekeeping. In summary, the main elements of this widespread conceptualisation of corruption are: the power; the subject; the abuse; the private benefit.

The first element refers to the mandate to either establish or impose rules or make decisions for other people (Monteduro et al., 2013: 18). As highlighted above, the power can be both ‘mandated from’ and ‘mandated to’ others, since one can be either responsible for others or transfer a responsibility to third parts.

The subject can be referred to both public and private entities (Arnone & Iliopoulos, 2005: 18) and conceptually leaves room for the inclusion of relationships which individuals establish each other both in the private and in the public context. However, corruption becomes worthy of special attentions when public sector is concerned more than in other cases. Public sector is, indeed, centred on collective ownership and social purposes that drive the exercise of the public choice (Bovaird & Löffler, 2009: 5) but, when personal affluence and public power obstruct each other (Rose-Ackerman, 2006: XVII), the private interest may clash with the delegating side’s one in an unsolvable conflict (Ferrante & Vannucci, 2017: 30).

The abuse refers to a deviation from the provisions of the mandate itself, since not only the power acquire its own meaning when an individual intentionally addresses it towards what he/she is responsible for (Søreide, 2002: 2; Tanzi, 1998b: 167-168), but also when it is either badly exerted – intended as both abused and misused – or even omitted.

The last element is an advantage of any nature – not only financial – that derives from breaking the power custody agreement and benefited by either the entrusted person or by individuals next to him or her (Monteduro et al., 2013: 19; Søreide, 2002: 2; Tanzi, 1998b: 167-168). In the public sector, it is typically supported by a hidden *quid pro quo* purposefully diverting the natural direction of the power being originally entrusted.

Jointly considered, these constitutive elements of corruption make the phenomenon more inclusive in terms of meaning, as it goes beyond the legal interpretations which national regulations use to provide in a *numerus clausus* of circumstances. Indeed, provided that the intrinsic arbitrariness of the corrupt decision-making process leads to actions which do not take into consideration any – either present or future – external interest¹ that, both directly and indirectly, it may run over (Dawood, 2014: 107), establishing what represents corruption *a priori* is not always a wise choice.

As Rose-Ackerman and Søreide (2011: XIV) underlined, law generally uses to tag something as ‘corrupt’ basing on a disapproval perception of this phenomenon. Differently,

¹ Collective interest is not the simplistic sum of overall the single private interests, and it raises from a conceptual legal regime perspective anchored to the fact that subjective rights can exist together with social intervention. For more details, see Gabardo, E. 2017. *The Principle of Supremacy of the Public Interest over Private Interest as the Foundation of Social Administrative Law*. *Revista de Investigações Constitucionais*, 4(2): 95-130. P. 97.

economic scholars and practitioners look for a more objective concept being suitable to be studied both theoretically and pragmatically before to evaluate its own normative features. For this reason, corruption as a field of study and economic analysis have been marked by mutual frictions (Rose-Ackerman, 2006: XIV).

Despite possible academic disputes, a convergent point can be found. Corruption involves a betrayal against society by whom is appointed for accomplishing a public duty in terms of resource reallocation in favour of exclusive groups of individuals, which implies lower – or even none – availability for anyone else who has exactly the same access right to collective resources. It means that its principal effect is the ineluctable reduction of the decision-making scope from a given human community – for instance, a local area – to an individual or smaller groups of people, in violation of the power-transfer agreement within a trust relationship (Pozsgai-Alvarez, 2019: 3-4). Therefore, personal wealth-seeking behaviours of public authorities' representants (Amundsen, Sissener, & Søreide, 2000: 11) realised through a divergence from their formal obligations (Nye, 1967: 416) produces the foremost result of obtaining an unjust advantage at expenses of the public welfare, by exploiting a power legitimately exerted in accordance with a public mandate.

Under a different perspective, corruption might not result as much deleterious as people may generally think about. In particular, a non-recent research line argues that corrupt behaviour may be tolerable and foster economic development by virtue of the fact that public officials may be more useful in performing their duties and making private subjects able to overcome the muddled bureaucratic mechanisms (Huntington, 1968; Leff, 1964).

Possible benefits may also derive in political terms. At this regard, Dawood (2014: 128-129) stated that political corruption may be divided into 'right' or 'wrong', depending on whether there exists an acceptable political gain, constituted by electoral campaign-support in exchange of favourable outcomes for donors, in view of sure consensus and possible future re-election that may represent reliable guarantees against any public power abuse. Besides, it seems that there is no general agreement about what should count as 'corrupt' within the specific context of financial support to political candidates (Rose-Ackerman, 2006: XIX), such that the border between *quid pro quo* of corruption and donation is not glaring (Arnone & Iliopoulos, 2005). Likewise, Bearfield (2009) posits a re-conceptualisation of political patronage, underlying its beneficial effects and attenuating common demonisations.

Although political corruption may realistically provide some positive outcomes, as Rose-Ackerman (2006: XV) pointed out, bureaucratic corruption systems always undermine

other public objectives. With different magnitude, whatever form of corrupt behaviour, whether ‘petty’ or ‘grand’², slows down economic development (Mauro, 1995: 705-706). It weakens the public performance as it moves public money away from required high-value interventions to projects that may not be totally needed, but which instead promise better chances to hide corruption practices (Shleifer & Vishny, 1993: 616).

Therefore, the phenomenon in question harms relationships of trust between citizens and institutions (Allegrini et al., 2018: 168)³ and whatever corruption-exorcising mindset does not consider the injurious effects on the multiple and multi-faceted interests of human communities, since misuses of public entrusted power unavoidably involve the exclusion of parts of society in favour of few powerful interest’s groups that have the opportunity to exert a greater pression on policy- and decision-makers. In the extreme case, corruption substantiates into a ‘state-capture’ (Hellman, Jones, & Kaufmann, 2000) that undermines political processes of rule shaping of a country (Arnone & Iliopoulos, 2005: 22) and, thus, its government stability.

Corruption is moralistically, socially, politically and economically wrong in and of itself, since it leads to undesirable consequences (Kolstad, 2008: 2), such as growing transaction costs and uncertainty in an economy, frictions on long-run investments, talent misallocations, distortions of technology choices, and so on (Gray & Kaufman, 1998: 1). A compliant point of view does not take into account the systemic long-term effects of corrupt behaviours that compromise societal welfare and inter-generational equality.

2.3 The principal-agent theory

The meaning of corruption underlies a notion of degradation from an original condition⁴ (Dawood, 2014: 118) that arises from the decisions made by individuals (Groenendijk, 1997: 207). This way to frame it helps to understand the reason why the abuse of entrusted power is

² ‘Petty’ corruption arises where an individual breaks laws and regulations to exploit some opportunities by asking for kickbacks, distorting public funds and promising favours against private gains. Differently, ‘grand’ corruption involves the highest government levels and, as a consequence, the entire social-economic-political environment, so that it undermines state legitimacy and economic functioning. For more details, see Allegrini, V., Lai, Y., & Cecchetti, I. 2018. La collaborazione tra comuni e il suo impatto sulla qualità dei Piani Triennali di Prevenzione della Corruzione: un’analisi empirica [Collaboration between municipalities and its impact on the quality of Triennial Plans of Prevention of Corruption: An empirical analysis]. *Azienda Pubblica*(2): 165-188, Arnone, M. & Iliopoulos, E. 2005. *La corruzione costa. Effetti economici, istituzionali e sociali [Corruption costs. Economic, institutional, and social effects]*. Italy: Vita e Pensiero, Jain, A. K. 2001. Corruption: A review. *Journal of Economic Surveys*, 15(1): 71-121, Pizzorno, A. 1992a. Lo scambio occulto. *Stato e mercato*, 34(1): 3-34, Rose-Ackerman, S. 2006. *International Handbook on the Economics of Corruption*. Cheltenham, UK; Northampton, MA, USA: Edward Elgar Publishing Limited (UK); Edward Elgar Publishing, Inc. (USA).

³ See also Del Monte, A. & Papagni, E. 2007. The determinants of corruption in Italy: Regional panel data analysis. *European Journal of Political Economy*, 23(2): 379-396.

⁴ It recalls the core meaning of the adjective ‘corrupt’, that is, unreliable due to modifications or mistakes. Cf. Oxford English Dictionary. 2012a. Corrupt. In M. Waite (Ed.), Seventh ed.: 156. UK: Oxford University Press.

typically represented as a pathology of the agency theory, about which a huge body of literature – for instance, Berle and Means (1932); Eisenhardt (1989); Fama and Jensen (1983); Grossman and Hart (1983); Jensen and Meckling (1976); Mitnick (1975); Panda and Lepsa (2017); Ross (1973) – dealt with.

The agency theory implies that the principal delegates its power to carry out one or more tasks to an agent on his/her behalf⁵, according to a clear agreement that the agent undertakes to comply with (Berle & Means, 1932; Jensen & Meckling, 1976; Panda & Lepsa, 2017; Ross, 1973).

The principal-agent literature is a part of the neo-institutional economics, according to which, based on the preferences of individuals, institutions are “collectively binding working rules” (Groenendijk, 1997: 207) and, as such, they structure and constrain the decision-making process. Such a theory is helpful to understand the behaviour of the real world, as represents the pillar around which institutions are built and grow up (Mitnick, 1975). Therefore, it helps to single out governance mechanisms aimed at controlling and regulating the agent’s behaviour (Panda & Lepsa, 2017: 76) under the principal’s perspective (Grossman & Hart, 1983) when there is separation between the decision formal approval and monitoring and the implementation of decisions (Fama & Jensen, 1983: 302).

The prevalent research on this topic emphasises the typical issues in terms of phenomenon understanding, forms and implementation costs related to different knowledge fields where it has become operative – e.g., economics, finance, sociology, political sciences, and so forth (Eisenhardt, 1989: 57; Panda & Lepsa, 2017: 75). One of the most salient points relates to possible events of break within the principal-agent relationship. More precisely, the model underlying the theory assumes that the principal’s and agent’s interests may diverge in presence of information gaps to the advantage of the agent and, based on that, the principal can prescribe the pay-off rules of their relationship (Groenendijk, 1997: 208).

Possible distortions of the agent’s behaviour may occur when the binding relationship induces the agent to improve his/her utility from and/or reduces his/her effort in the relationship, because of the fact that the principal is not able to provide for an adequate sanctioning/incentivising system to control the agent’s behaviour (Arnone & Iliopulos, 2005: 34). These relational debasements are commonly identified with the so-called ‘agency costs’, which are framed into the transaction costs category of an agreement (Coase, 1960).

⁵ The relationship may not be one-to-one only, but also pluralistic, that is, one-to-many, many-to-one or many-to-many.

In this picture, information asymmetry represents a transaction cost (Coase, 1960; Williamson, 1985) that can show up in the form of either ‘adverse selection’ or ‘moral hazard’, in function of the object of the knowledge. Assuming that the agent is rational and reward-seeker⁶ (Panda & Lepsa, 2017: 79), on the one hand, information asymmetry can configure, both before and after contracting, as ‘adverse selection’ when there is lack of knowledge about either the agreement object or the agent’s conduct, respectively; on the other hand, it can take the form of ‘moral hazard’ only after contracting, since the possible lack of knowledge concerns the agent’s behaviour (Sung, 2005: 1021).

More in particular, in the case of ‘adverse selection’, the fact that the agent’s interests may be misaligned from those of the principal may provoke *ex ante* costs, which are costs of drafting, negotiating and safeguarding an agreement (Williamson, 1985: 20-21). Moreover, the misaligned interests may create *ex post* costs, which refer to transaction costs aimed at monitoring the agreement execution (Groenendijk, 1997: 208). They can assume different forms, such as haggling costs to correct eventual misalignments, setup and running costs associated with the governance structure to which disputes are referred, and so forth (Williamson, 1985: 21). Contrarily, in the case of ‘moral hazard’, the principal has some difficulties to maintain a continuous control over the agent and his/her conduct, so that *ex post costs* may only occur.

Some authors (Pepper & Gore, 2012; Wiseman & Gomez-Mejia, 1998) focused their attention on different core behavioural or subjective factors of the theory, such as motivations and abilities of the agent, risks and opportunities. In particular, the behavioural agency theory points out the necessity to assess the link between the agency costs and the agent’s performance, assuming that, on the one hand, the agent opposes to risks by analysing both endogenous and exogenous advantages of breaking the agreement under the bounded rationality condition and, on the other hand, there exists a linear relationship between the performance and motivation of the agent (Panda & Lepsa, 2017: 79).

The agency relationship is the core of the corrupt transaction. Typically, based on what argued above, the principal’s control over the agent is exercised by the prospect of negative payoffs in the comparison between advantages and disadvantages to engage in corruption (Rothstein, 2011b; Teorell, 2007).

⁶ The compliance with the bounded rationality principle is a premise of the principal-agent model. About the bounded rationality, cf. Cristofaro, M. 2017. Herbert Simon’s bounded rationality: Its historical evolution in management and cross-fertilizing contribution. *Journal of Management History*, 23(2): 170-190, Simon, H. A. 1947. *Administrative Behavior: a Study of Decision-Making Processes in Administrative Organization*. New York, NY: Macmillan.

Despite the literature usually refers to this theory by emphasising its historical roots and applications to private companies, it is well-suited for a large proportion of social relationships (Eisenhardt, 1989: 59).

Accordingly, in the public sector, briberies, kickbacks and other private gains incentive civil servants to take actions undermining the principals' interests, with the aim to retrieve the best possible benefit from the agency relationship. Typically, civil servants represent the agents by virtue of a relationship of mandate to the behalf of the belonging public bodies – i.e., the principals (Galli, Giacomelli, & Valotti, 2018: 149). Obviously, the possible presence of a third actor may be considered whether an external part pushes the civil servant to displace a public interest with a private one, so that another principal-agent relationship is established between this external 'client' and the corrupt official (Groenendijk, 1997: 209). However, in general, the roles of principal and agent may be singled out, for instance, in the relationships between bureaucratic superiors and subordinates, politicians and public officials, or even between a public body and a given citizenry (Rose-Ackerman, 2006: XVII).

Both the principal's and agent's point of view seem to be suitable when corruption in the public domain is the problem to address. Interestingly, Perrow (1986) highlighted how the agency problem can also be seen from the agent-side, as the principal may have a cognitive and factual dominance on the agent.

As regard the principal's point of view, it is peaceful to argue that – at least in democratic realities – communities represent the principal who should monitor the work of politicians and public officials – i.e., the agents –, possibly leading the agreement back to its original status in the event of improper exercise of entrusted public power for achieving private aims. Both collective and widespread interests are concerned here⁷, where the former belong to well-identified, distinct and structured groups of individuals (Contaldi, 2020: 10; Giannini, 1976), while the latter are referred to a collective indistinctly (Contaldi, 2020: 10; Vocino, 1982). Accordingly, whatever 'state', intended as "nation or territory considered as an organized political unit under one government" (Oxford English Dictionary, 2012b: 712) – which includes its offshoots in the case of decentralised governments – encompasses several public interests claimed by multiple stakeholders – e.g., citizens, businesses, non-governmental organisations (NGOs), and so forth –, for which it should guarantee adequate protection mechanisms, anti-corruption included.

⁷ Interests that are related to private relationships are logically excluded in this digression.

Moving the focus on the agent's perspective, especially when a large amount of money is channelled by power groups among principals – i.e., the so-called 'lobbies' – within a community, agents succumb to the predominant stakeholders' influence, which provokes a mismatch between the objectives of power groups and those of communities. As a result, one-sided political and economic reforms generate policy distortions leading to the highest level of 'state capture' (Hellman et al., 2000: 34). Nevertheless, depending on the lawfulness and transparency levels of the means adopted, influences from the private sector are not always a symptom of pervasive corruption, rather they are physiological and may even boost national reforms and public efficiency (Arnone & Iliopoulos, 2005: 22).

Beyond the thin line that may justify corrupt practices, malfeasances for personal gains objectively disempower people, since the outcomes resulting from the related decision-making processes are not legitimated by the equal participation and influence of who is, in turn, affected by the process itself (Dawood, 2014: 108-109; Warren, 2004). Whatever the perspective is, individuals' myopic judgment and self-interest in state-society relationships erode government evenness and rightfulness, as well as cause resource waste and failing public spending choices⁸ (Rose-Ackerman, 2006: XVI).

2.4 The collective action theory

Despite the behavioural agency model (Pepper & Gore, 2012; Wiseman & Gomez-Mejia, 1998) introduces more realistic assumptions to the principal-agent model – e.g., agents are not risk-takers and have bounded rationality (Panda & Lepsa, 2017: 79) –, a conceptual limitation of the latter is the implicit hypothesis that, where the power exercise is misaligned from – or even threats – the interest for which it is entrusted, the principal wishes to monitor and possibly leads the agreement back to its initial conditions. This cannot be taken for granted.

Detecting such a conceptual limitation of the traditional principal-agent approach, a body of the literature (Booth & Cammack, 2013; Mungiu-Pippidi, Loncaric, Vaz Mundo, Sponza Braga, Weinhardt, Pulido Solares et al., 2011; Persson, Rothstein, & Teorell, 2013; Rothstein, 2011a) pointed out that corruption should be better considered as a matter of collective action, especially when it systemically impacts on specific contexts (Marquette & Peiffer, 2015). As a general concept, the collective action theory discloses the capability of a

⁸ It is worthy to highlight that, within the public context, both the agent and the possible third actor engaging in corruption are not disconnected from the bad outcomes produced by breaking the principal-agent relationship, since their well-being belongs to the same set of public interests which the agent is called to deal with. In other terms, the main mistake that corrupters and corrupted make refers to the carelessness of the undesired outcomes that themselves have contributed to realise over time and that, sooner or later, will affect their wealth as well.

community to collectively act for realising the public good (Olson, 1971; Ostrom, Walker, & Gardner, 1992).

Although this kind of approach may logically appear desirable in dealing with tangled socio-economic issues, collective action theories were often considered a *chimera* in the past, since hardly practicable and costly. More in particular, as Holahan and Lubell (2016: 24) pointed out, Olson's (1971: 2) assumed that, because of their self-interested nature, individuals' rationality fosters cooperative behaviour only if either they are part of narrow groups or there exist particular mechanisms – for instance, coercion – pushing them to act towards the attainment of the same goal.

This is coherent with the Hardin's (1968) statement on individuals' short-sighted view in exploiting common pool of resources. Paraphrasing the Author, collective resources need to be managed either at central government level or by a single private institution because of the fact that, since they are freely-accessible by everyone, benefits coming from their growing usage are retrieved by users only, but the related costs are shared in the overall community and this, sooner or later, will lead to the 'tragedy' of resource impoverishment. In other terms, governmental intervention should constitute the favoured way to manage rivalrous and non-excludable collective goods.

Nevertheless, centralised – public or private – coordination may fail in overcoming these issues related to provision of collective goods (Holahan & Lubell, 2016: 25). Institutional theory may provide a solution to make cooperation a feasible strategy by means of formal rules and informal social norms (Ostrom, 2006) affecting individuals' behaviour – therefore their interactions, mental models and, as a result, choices (Aoki, 2001) –, in a way to make cooperation an – even the most – prevailing strategy (Holahan & Lubell, 2016: 25).

Accordingly, self-organised institutions – such as collective actions – may arise within other institutional frameworks belonging to higher layers of complex socio-economic-political systems (Ostrom, 2006), even if with different results in terms of trade-off between costs and benefits that involved actors may respectively incur and take. Furthermore, these outcomes may be affected by externalities stemming from interactions among actors involved in different, but contiguous, governance settings of institutions (Holahan & Lubell, 2016: 27), so as to destabilise or catalyse them.

In other terms, it is possible a co-existence between top-down and bottom-up governance settings (Holahan & Lubell, 2016: 28), where the latter are characterised by voluntary cooperation among key-actors that, by means of trust, mutuality and selflessness,

enable successful co-management of common resources (Ostrom, 1990) towards more sustainable socio-economic-political equilibria.

In the light of what above, it is possible, on the one hand, to conceptualise corruption as a form of ‘free riding’ of common-pool resources, which are non-excludable but rivalry by definition (Marquette & Peiffer, 2015), and, on the other hand, to identify the so-called ‘tragedy of the commons’ (Hardin, 1968) as its typical outcome. Under this point of view, being corruption ‘free riding’, an agent should logically engage in it (Jancsics, 2019: 525), but the contextual dependency of its configurations should contain hasty conclusions and, rather, trigger an appropriate research effort on the related causes.

2.5 Causes of corruption

In spite of international agreements moved by the common desire to tackle corruption expressed, for instance, by the Convention Against Corruption (CAC) of the (UN), defining corruption is a not easy task and finding out its determinants proves equal, provided that it is complex, contextual and many-sided, as well as characterised by several forms, functions, causes and impacts (Amundsen et al., 2000: 9).

Although to establish an univocal sense of the cause-effect relationships is not always immediate (Arnone & Iliopoulos, 2005: 5) due to the resulting feedback loops that create difficulties in isolating its causes (Lambsdorff, 2006: 4), the prevalent literature (Ades & Di Tella, 1997; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1999; Lambsdorff, 2006; Mauro, 1995, 1997; Montinola & Jackman, 2002; Persson, Tabellini, & Trebbi, 2003; Rose-Ackerman, 1999; Tanzi, 1998b; Treisman, 2000) proposed a raft of macro and cross-national studies related to the general causes of corruption. Within this framework, distinguishing between *individualistic* and *structural factors* can better explain differentiated corrupt behaviours case-by-case (Heggstad & Frøystad, 2011: 6-7).

2.5.1 Individualistic causes

The decision to corrupt by a public servant may depend on a series of subjective factors associated to either an objective conditions or personal status of individuals. More precisely, the decision may be made by virtue of: the net expected value of the retrievable benefits; the degree of the individual’s professional integrity and/or his/her personal economic situation; the effectiveness degree in monitoring and supervising systems; the level of harshness of penalties and the probability to be caught (Heggstad & Frøystad, 2011: 7); the frustration for a missed promotion; ideological reasons linked to wealth redistribution matters; an immoral obligation

to be compliant with or succumb to group pressure to adopt corrupt practices and routines (Isaksen, 2005: 11-12); and so forth.

Especially when public officials' wages are lower than their actual needs, governments may even give up to corruption, because it may not make sense to adjust salaries to compensate for that gap if they will keep going to get bribes and steal anyway (Besley & McLaren, 1993). Public officials may not stop to accept kickbacks even when they have achieved their desired life standard degree by getting briberies (Søreide, 2002: 4), but an extension of their responsibility may discourage them (Di Vita, 2011).

High complexity, bureaucratisation and overregulation may lead to corruption where governments lack of responsibility and transparency for outcomes (Eizenstat, 1998: 7). Overall, poor expertise and training of managers and civil servants who are involved in designing, executing and controlling plans and budgets, as well as in implementing risk management systems, increase the risk of corruption (Heggstad & Frøystad, 2011: 13).

2.5.2 Structural causes

Structural causes refer to systemic factors affecting the general level of corruption in a country (Heggstad & Frøystad, 2011: 6). To provide an overview of the most significant findings and a classification of them is useful to address the identification issues of any corruption form. This classification responds to the necessity to categorise single contextual causes of relevant behaviours to better understand and distinguish different aspects of the same problem.

According to the heterogenous value judgments given to these causes, corruption can move either from social-economic-political systems' disfunctions, such that it can be considered as a structural problem of politics or economics, or from economic-social-political factors and processes, such that it can be seen as a cultural and individual moral problem (Monteduro et al., 2013: 35). The prevalent literature (Dimant & Tosato, 2017: 2-12; Lambsdorff, 2006; Mauro, 1997: 84-86; Mensah, 2014: 5-12; Monteduro et al., 2013: 35-38; Treisman, 2000: 402-407) identified and classified them into homogenous macro categories – i.e., social and cultural traditions, social and political institutions, economic policy and structure, juridical factors –, which are discussed below.

2.5.2.1 Social and cultural traditions

Culture denotes peculiar attitudes and ways to act – revealed, for instance, by language, values and history – being able to differentiate a specific group of people from all the others (Temin,

1997: 268). Causes related to socio-cultural traditions mainly refer to dearth of ethical and moral values among individuals within a certain context, to educational, political, cultural, religious, colonial and legal origins and traditions leading to rule-misaligned behavioural models (Glaeser & Schleifer, 2002; Hofstede, 1991; Husted & Instituto Tecnológico y de Estudios, 1999; La Porta et al., 1999; Lambsdorff, 2006; Mensah, 2014; Treisman, 2000).

It is undoubtful that the value system being shared within a community's culture represents a fundamental structural determinant of corruption (Husted & Instituto Tecnológico y de Estudios, 1999: 343). Previous research (Hofstede, 1991; House, Hanges, Javidan, Dorfman, & Gupta, 2004; Schwartz, 1999) outlined a couple of cultural dimensions characterising human societies and attempted to explain to what extent they are linked to corruption, coming to non-univocal findings. An important part of it (Gerring & Thacker, 2005; Hofstede, 1991; Mensah, 2014; Schwartz, 1999) also focused on political, economic and social traditions and the rule-misaligned behavioural models which result from them. Nevertheless, in a country, possible correlations between level of corruption and cultural traditions are not acceptable for causal deductions (He, 2016: 268).

Within this specific category of structural causes, the religion-corruption relationship was quite discussed among scholars and different Authors provided conflicting findings. The general perception is that societies characterised by rooted religious values are usually more corrupt than those which have showed rational mentalities towards authorities (Lambsdorff, 2006: 19). Besides, coherently with the argument that hierarchy-based cultures generally allow for higher corruption levels (Husted & Instituto Tecnológico y de Estudios, 1999), some Authors attributed a positive sign to this relationship in the case of religions based on hierarchical structures (La Porta et al., 1999), while some others a negative sign by simply changing the reference unit of measure of GDP from national to per-capita (Gerring & Thacker, 2005; Treisman, 2000). The basic idea is that hierarchy does not allow for an equal distribution power, so that a better power control may be ensured to a few people only. However, religion does not seem to be a deterministic factor of corruption, even though policy reforms should always consider pre-existent cultural circumstances and traditions (Lambsdorff, 2006: 17).

An ethically-significant aspect of the duo culture-corruption is represented by the gender inclusiveness in the economic, social and political life. Regarding this point, some empirical findings (Debski, Jetter, Mölsle, & Stadelmann, 2018; Dollar, Fisman, & Gatti, 2001; Frank, Lambsdorff, & Boehm, 2011; Jha & Sarangi, 2018; Lee & Guven, 2013; Sung & Chu, 2003; Swamy, Knack, Lee, & Azfar, 2001) showed that corruption level decreases as the female presence grows in the labour market and in political and institutional bodies. It was also

found that the greater the masculinity of a culture is, the higher the level of corruption will be (Husted & Instituto Tecnológico y de Estudios, 1999: 345). Overall, male-dominance-based societies show a more or less evident bias to corrupt behaviours, probably due to the fact that men are more likely to accept and adapt to corruption than women (Fišar, Kubák, Špalek, & Tremewan, 2016). Indeed, the latter are more risk-adverse and, as such, they usually seize the opportunity for undue private gains when they can easily disengage themselves from a hidden corrupt agreement with no repercussion (Frank et al., 2011: 59). However, less corrupt communities do not generally allow for any sexual dominance from both the sides (Lambsdorff, 2006: 20-21).

The intuitive relationship between religion, culture and subtended values does not make easy to establish which specific factors are the direct and exclusive determinants of a particular corrupt behaviour. What it is possible to argue is that, according to the ‘cultural hegemony’ concept formulated by Antonio Gramsci (1948-1951), particular power relations are considered acceptable or even opportune within systems characterised by coherent normative and cultural assumptions (Hyman & Brough, 1975: 199). As a result, a group of people may even conscientiously claim that corruption is totally absent in its environment just because of a natural acceptance of crooked behaviours in its own cultural system and mindset.

Overall, it emerges how socio-cultural causes of corruption are probably the most important variables explaining the quality of anti-corruption reforms and their impacts on public performance.

2.5.2.2 Social and political institutions

The socio-political causes of corruption are related to:

- features of political process, in terms of velocity, delays, access and exclusion models (Amundsen et al., 2000: 52-53; Monteduro et al., 2013: 36);
- characteristics of political and administrative system in terms of decentralisation and federalism (Amundsen et al., 2000: 52-53; Fisman & Gatti, 2002; Huther & Shah, 1998; Persson et al., 2003; Tabellini, 2000; Tanzi, 1998b);
- role of democracy at institutional level and the related public scrutiny and social pressure (Kalenborn & Lessmann, 2013; Saha, Gounder, & Su, 2009; Sung, 2004);
- press freedom (Bhattacharyya & Hodler, 2015; Brunetti & Weder, 2003; Kalenborn & Lessmann, 2013), trust degree of citizens in institutions (Del Monte & Papagni, 2007; Mauro, 1995) and political stability (Treisman, 2000).

Democracy, political process, press freedom, trust in government and political stability were largely studied, but the general findings are disparate and not always united in establishing an unambiguous relationship with corrupt phenomena.

Likewise, the relationship between administrative decentralisation degree and corruption level is not always clear, since, on one hand, 'state-capture' and other similar undesirable outcomes can arise both in centralised and in locally-administrated realities and, on the other hand, this relationship is also influenced by the measure of decentralisation adopted (Lambsdorff, 2006: 15). In particular, some Authors (Fisman & Gatti, 2002; Huther & Shah, 1998) used an empirical approach to estimate the decentralisation-corruption and governance-decentralisation relationships through the use of specific indexes. Coherently with the fact that corruption and bad governance are usually related to the misuse or plundering of public resources, these Authors assumed the ratio between the regional or local governmental spending and the total amount of public expenditure as a measure of decentralisation degree of a country. Albeit a further distinction for specific governmental intervention sectors should be made, their findings suggest that, in the case of systems with a growing rate of fiscal decentralisation in government spending, corruption assumes low levels. However, corruption may lurk where tax collection is managed by central governments (Lambsdorff, 2006: 16).

Diversely from the case of a centralised PA, where the contribution-rewards relationship is holistically referred to the national public performance, decentralisation may be an appreciable solution aimed at increasing policy and decision makers' accountability (Fisman & Gatti, 2002; Tabellini, 2000). Especially in local governments, political competition for leadership may support this inclination (Albornoz & Cabrales, 2013), as it is the means of the democratic method through which people's electoral choice can effectively and efficiently represent the acquisition of the decision power (Schumpeter, 1942).

Premising that political competition is not a panacea for corruption evils per se (Moe, 1984), just like an 'invisible hand', it may allow communities to control politicians' actions and react against poor policy-making by triggering mechanisms that support the pursuing of public welfare (Lambsdorff, 2006: 10). Furthermore, considering that corruption reduces attractiveness of communities (Hawkins, 2000: VII), political competition may be strategic in fostering competition between local governments as well. The latter attracts residents (Brennan & Buchanan, 1980) and lessens the opportunities for officials to extract undue incomes in return for particular services (Fisman & Gatti, 2002: 327).

Another research line argued a different kind of link between decentralisation degree and corruption. In particular, some Authors (Gerring & Thacker, 2004; Goldsmith, 1999: 878;

Kunicová & Rose-Ackerman, 2005; Treisman, Bannerjee, Bloom, Rushakov, Keat, Cox et al., 2002) found that corruption instead increases as the federalism scheme is growly adopted (Rose-Ackerman, 2006: 16).

The context-specific and complex features of corruption (Lambsdorff & Schulze, 2015: 101) always require to systematically investigate, case by case, the possible effects of a certain solution in relation to the territorial historical events and growth perspectives, such that whether decentralisation may be or not be a good solution against corruption is a dilemma for which both theory and practice cannot provide an univocal answer (Albornoz & Cabrales, 2013: 103-105).

2.5.2.3 Economic policy and structure

The economic causes of corruption include factors such as:

- degree of country wealth and dependency on natural resources (La Porta et al., 1999; Mauro, 1997);
- territorial income distribution and poverty level (Deininger & Squire, 1996; Forbes, 2000; Kuznets, 1955; Mauro, 1995; Tanzi, 1998b);
- economic openness degree to foreign trade (Ades & Di Tella, 1995, 1997; Gerring & Thacker, 2005; Sung & Chu, 2003; Treisman, 2000);
- level, size and range of government political and public intervention (Ades & Di Tella, 1997; Chafuen & Guzman, 2000; Tanzi & Davoodi, 1997; Treisman, 2000);
- inflation level (He, 2016);
- lack of public service delivering, public employment selection modality and job tenure (Mensah, 2014; Monteduro et al., 2013);
- dearth of economic freedom (Chafuen & Guzman, 2000; Graeff & Mehlkop, 2003; Henderson, 1999; Lambsdorff, 2006: 8-10; Saha et al., 2009).

Although data comparison among countries should deserve carefulness (Deininger & Squire, 1996; Lambsdorff, 2006), it is possible to claim that corruption generally leads to a slower economic growth (Shleifer & Vishny, 1993), counteracts capital attractiveness from abroad (Brada, Drabek, Mendez, & Perez, 2018; Tanzi, 1998b) due to inefficiency that it creates within government institutions (Arnone & Iliopulos, 2005), and increases as the abundance of natural resources of a country enlarges (Leite & Weidmann, 1999; Sachs & Warner, 1997).

Corruption also undermines private investments, given that costs and uncertainty degree unavoidably increase (Mauro, 1995), but it fosters public investments, since the linked

projects are more suitable for officials' manipulations aimed to obtain kickbacks (Tanzi, 1998b: 585). Overall, corruption slows down productive investments and absorbs wealth by both reducing private consumption of goods and services and creating inequalities in income distribution, although deeper investigations about the secular trends in income structures and the underlined causal factors should be conducted to acquire a better knowledge of the whole economic growth process (Kuznets, 1955: 27).

With regard to country economic openness, empirical research was inhomogeneous and discordant about to what extent corruption characterises economically-isolated nations. Indeed, under a certain point of view, corrupt governments reduce national benefits acquirable through globalisation because of the discouragement of foreign capital inflows, but, on the other hand, even in the case of a higher global economic competition, they may provide kickback-paying multinational corporations with a competitive advantage to illegal earnings (Sung & Chu, 2003: 97).

Empirical research also found that corruption is inversely linked to the importations-in-GDP ratio (Ades & Di Tella, 1995, 1997; Gerring & Thacker, 2005; Sung & Chu, 2003; Treisman, 2000). In particular, even if economic openness to foreign trade – measured by means of that ratio – seemingly reduces corruption degree, a small shift in corruption level reductions would require a gigantic trade liberalisation effort (Treisman, 2000: 439). However, the use of other kinds of measures corroborated the weak relevance of the imports-in-GDP ratio in terms of corruption magnitude, since it is strongly dependent on the country size and, even in the case of a low importation level, highly populated countries could control corruption through a significant internal competition (Lambsdorff, 2006: 9).

Concerning public intervention, Lambsdorff (2006: 4) stated that, in spite of the little evidence available, the belief that minimising it leads to positive effects in terms of corruption comes from the widespread entrusting of economists on market mechanisms and the politicians' unreliability. Accordingly, Boycko, Shleifer, and Vishny (1996) posited privatisation of public institutions as a possible solution for the regression of corruption by the virtue of the benefit in terms of efficiency gain.

However, contributions in the literature about the public intervention in national economies did not completely agree with a straightforward relationship between governmental power and corruption degree. More precisely, some empirical studies found a negative association between the size of government intervention and corruption (Adserà, Boix, & Payne, 2003; Goel & Budak, 2006; Goel & Nelson, 2010; Graeff & Mehlkop, 2003; Montinola

& Jackman, 2002). Contrarily, other research works found that higher governmental spending and intervention rates increase corruption levels (Arvate, Curi, Rocha, & Miessi Sanches, 2010; Goel & Nelson, 1998; Tanzi & Davoodi, 1997; Treisman, 2000). Hence, there is no rule establishing whether private is better than public as, even in the case of transition into the private regime, corruption may simply shift and occur through the new privatised organisations (Lambsdorff, 2006: 5).

Finally, a high level of competition can, in principle, reduce the probability of corruption, since growing economic freedom reduces corruption degree (Paldam, 2002; Saha et al., 2009). Nevertheless, if, on the one hand, a lower competition degree among firms within a specific market may allow for more profits from which politicians and public servants can obtain a share, on the other hand, a high level of competition may open to the opportunity for public officials to obtain kickbacks in the case they accept lower or different quality standards in relation to those requested by law (Lambsdorff, 2006: 8).

2.5.2.4 Juridical factors

The juridical causes are substantially related to the effectiveness of corruption legislation and its pragmatical application (Herzfeld & Weiss, 2003: 621). A juridical system mainly needs a structure with a robust and clear set of strict rules, as well as well-defined operating, preventive and sanction mechanisms to tackle corruption, especially within public institutions. Indeed, the level of corruption is affected by the quality of government which, in turn, is affected by legal codes (Dimant & Tosato, 2017: 5).

In the wake of the provisions of the United Nations Convention against Corruption (United Nations, 2004b), several updates of the subject have led the Member States into the approval of a series of new more effective laws. In spite of the efforts in harmonising the cross-country regulations, anti-corruption programmes still need to be systematically contextualised in relation to the specific national reality and, even though the evidence suggests that to streamline and simplify rules is an ‘evergreen’ solution for hindering corruption, enhancing productivity and attracting new capital stocks, the heterogeneity of incentives of corruptive deals makes cross-country analyses unsuitable to design opportune reforms (Rose-Ackerman, 2006: XXIV).

The abuse, misuse or omission of public office for private gain is fostered by the low risk of getting caught and punished, which depends on juridical system effectiveness (Treisman, 2000: 402). Corrupt political elites attempt to reduce the effectiveness of juridical systems by manipulating resource allocation and appointing crooked people to key positions,

thus making anti-corruption battle arduous for legal systems and allowing for corruption diffusion in a vicious circle (Jain, 2001: 72). In this framework, firms, citizens and other members of a community are extorted by politicians and/or bureaucrats shaping the regulatory regime for their private goals, but it may also happen that groups with a high-bargaining power 'capture' the state, in a way to extract rents wrongfully at the expenses of the overall society (Hellman et al., 2000: 2).

Differences between common and civil law systems were highlighted by some scholars (David & Brierley, 1985; La Porta et al., 1999; Treisman, 2000), recognising the superiority of the first model over the second kind of systems in improving some aspects of governmental performance. Treisman (2000: 401) argued that 'legal culture', regarding the most widespread expectations and practices about how norms are enforced, is one of the most important aspects of legal tradition, which goes beyond the distinction between common and civil law systems and plays a fundamental role in guaranteeing the success of law against corruption.

In principle, identifying a well-suited or an inappropriate set of rules to tackle a 'wicked problem' such as corruption is possible, but to establish if a regulation opens the door to it does not, since what is not considered relevant with respect to provoking corruption may not be so with respect to other issues (Lambdorff, 2006: 6), and vice versa.

Rules and policies should be neither vague nor difficult to understand and handle, as well as they should not allow broad discretionary margins for their concrete application and foster and sustain a proper decision-making process, otherwise they may lead to some distortions creating fertile ground for corruption, and vice versa (Ades & Di Tella, 1997; Lambdorff, 2006). Generally, even a good law may not have any relevance without an adequate level of culture of legality in a community, which is a potential cause of corruption according to the principal-agent model perspective (Ceschel, Hinna, & Rotundi, 2018: 127; Treisman, 2007).

2.6 Three main approaches for analysing corruptive phenomena

Vannucci (2012: 70-73; 2015) identifies three different approaches, applied by the prevalent literature, explaining the ways through which corruption settles within political-administrative systems, that is:

- the *socio-cultural* branch, which focuses on heterogeneity of traditions, social norms and pressure, cultural values, beliefs and civic culture, based on which individuals shape their ethical preferences and, as a result, make decisions about engaging in corruption or not,

according to the expected utility loss linked to reprehensibility of it (Pizzorno, 1992b: 46);

- the *political-economic* model, whose pivot is constituted by economic incentives to put in place corrupt practices, which are given by the trade-off between expected costs and rewards (Becker, 1968: 172); in particular, the incentive to engage in corruption is based on the rational choice driven by the comparison between monetary gains, institutional opportunities and possible sanctions linked to a specific incorrect exercise of entrusted power.
- the *neo-institutional* approach, which encompasses the first two ones by taking into account both endogenous and exogenous variables and dynamics of corruption.

In particular, this last perspective lies on a model of path dependence coming from the mutual influence between economic incentives and basis of values over time, and assumes that illicit agreements take place within organisations thanks to governance and enforcement mechanisms being consolidated through cultural adjustment processes, which provide for reduced internal and external threats to corrupt practices, more and more tolerable degrees of safety, satisfying earning levels and opportunities, as well as a greater moral acceptance of corrupt relationships (Vannucci, 2012: 72). In other terms, the emphasis is here on the systemic and dynamic features of the individuals' expectations and choice on being involved in corrupt practices – i.e., multiple interactions with other actors over time –, by including moral preferences, economic incentives and social outcomes (2012: 73).

Dealing with corruption by exclusively focusing on a single type of variables – economic, cultural, social or political – may run the risk to lose a broader perspective of investigation that instead results crucial to deeply understand context-specific organisational and environmental dynamics characterising a given form of corruption. Therefore, an equally systemic and dynamic approach in political-bureaucratic systems need to be adopted to identify and trigger those drivers enabling key-actors to reach desired outcomes by means of well-identified strategic resources.

2.7 Corruption in local governments

Local governments represent the link between citizens and public officials delivering public goods and services on their behalf in an equitable and socially acceptable way (Masters & Graycar, 2016: 42). Accordingly, the concept of public official should be considered aside his/her private interests in the pursuit of the common good and serve the community (Perry,

2010: 679) without them conditioning decision-making processes (McDevitt, 2014: 4), by virtue of a public formal role occupied within political, juridical or administrative institutions.

Corruption can be both political and bureaucratic (Søreide, 2002), depending on the fact that the underlined decisions are made by politicians during the ‘budget preparation phase’ (Tanzi, 1998a) – or whenever distortions of political power for private gain occur (Amundsen et al., 2000), such as in public hiring – or by civil servants in the ‘budget execution phase’, respectively. This distinction applies for any government level and especially proves to be useful to identify, explore and systematise forms of corruption in activities and processes often overlapping each other, as it usually happens at local government level.

Corruption is a rooted symptom of misgovernance (Kaufmann, 2000: VIII) that, at local level, may assume several forms, such as: bribery; collusion; conflict of interest; cronyism; nepotism; fraud; gifts; hospitality; lobbying; revolving door; trading in influence; vote rigging (Pyman, Hristova, & Doig, 2018: 3-4). Meyer-Sahling et al. (2018) pointed out that an important limitation in corruption literature is given by the preferred focus on the correlation with the social, economic and political macro perspective, while public servants and organisations should attract more attention in the light of their key-role in fighting it. Indeed, each form of corruption is characterised by heterogeneity and context-specific features and may also combine with other forms, thus increasing its secrecy and making its detection extremely difficult in practice. As such, to improve the probability to curb this phenomenon effectively requires an *ad hoc* approach and a careful attention by researchers and practitioners.

In a local area, public sector performance may turn out to be either a catalysator or an inhibitor of the related community’s wealth and socio-economic development (Bianchi, 2016: 58-59). Improper management of collective resources due to corruptive reasons raises government expenditures and causes dissatisfaction of citizens because of low-quality public services (de Araujo Santos, Pereira, & Rodrigues, 2018: 461). In fact, distorting public funds because of the prevalence of private gains upon collective interests has as a consequence the shift of the financial burden onto poorest people (Savedoff & Hussmann, 2006), in a way that they may be excluded from the access to the essential public services (Eigen, 2005).

It follows that local governments may fail in delivering even standard services in the course of time, so that people within the interested communities may suffer the economic losses resulting from the bad administration of public resources and the opportunities which could have been exploited by deploying them more effectively and efficiently (Liu et al., 2017: 681). More in particular, with different magnitude, mismanagement of common resources may

imply disparate failures in the delivery of good governance to communities, which are more visible to the citizens than at higher levels – e.g., inadequate planning in education, urban, water, and recreation facilities; construction of crumbling buildings; inflated prices for home buyers (Gardiner, 1978; Masters & Graycar, 2016: 43).

Thus, good governance is fundamental to guarantee sustainable resource production and related economic benefits and impacts on living standards (Søreide & Truex, 2011). Policies leading far away from these goals and related outcomes weaken public institutions and erode trust in government by communities (Labelle, 2013; Robinson, 2006).

It emerges how an organisational perspective on local governments may better probe the actual ability of public servants to purposefully reduce risk of poor integrity and improve organisational reaction to possible infractions, hence supporting the integral success of local governments (Minkova, 2018: 1).

Nevertheless, in facing so-called ‘wicked problems’, such a perspective may not be sufficient to capture crucial community-based outcomes. Notably, in performing their activities, the public and private sectors – but also the so-called ‘third-sector’⁹ – unavoidably interact each other, affecting the qualitative and quantitative endowment of common tangible and intangible resources within a given local area (Bianchi, 2016: 60).

Political and bureaucratic corruption deteriorates both the endogenous capability of public, private and third-sector organisations to address socio-economic needs and their capability to create value *together* for the survival and sustainable development of a community. As such, an approach of corruption analysis, policy design and implementation being exclusively based on an organisational stand-alone point of view may not be sufficient. It may also apply when the institutional perspective takes into consideration possible environmental constraints and outcomes produced towards and feeding-back from the outdoor socio-economic reality of reference.

⁹ The ‘third sector’ includes organisations that are neither ascribable to the public sector nor to the private one, but either performing socio-economic activities where the former – cf. Weisbrod, B. A. 1975. Toward a theory of the voluntary nonprofit sector in a three sector economy. In E. S. Phelps (Ed.), *Altruism, Morality, and Economic Theory*: 171-196. New York, USA: Russell Sage Foundation. – or the latter – cf. Hansmann, H. B. 1980. The Role of Nonprofit Enterprise. *The Yale Law Journal*, 89(5): 835-901. – fails, or attaining a goal different from profit – cf. James, E. 1990. Economic theories of the nonprofit sector: a comparative perspective. In H. K. Anheier & W. Seibel (Eds.), *The third sector: comparative studies of nonprofit organizations*: 21-29. Berlin, Germany; New York, USA: De Gruyter. As such, they are formal institutions provided with decision-making autonomy that do not distribute profits and being characterised by voluntary labour – cf. Salamon, L. M. & Anheier, H. K. 1997. *Defining the Nonprofit Sector: A Cross-national Analysis*. Manchester, UK: Manchester University Press. Two traditional examples of third-sector organisations are NGOs and religious congregations.

Therefore, uncorrupted deployment of resources, such as social capital – e.g., trust in government – and quality of community life, which are strategic for the prosperity of a local area, requires a good public governance enabling proper resource restoration and synergic virtuous cycles that make, on the one hand, easier detecting and repressing corruption and, on the other hand, more arduous for it to occur.

Given the unescapable presence of multiple stakes, as well as the complex, uncertain, and dynamic nature of corruption, a clearer understanding of mechanisms underlying specific corrupt phenomena may take advantage from a *community point of view of public management*, integrating the organisational one.

Considering that whatever anti-corruption effort may be successful as long as it is arranged to clash with well-outlined forms of illicit behaviour (Klitgaard et al., 2000), even if every form of corruption is worthy to be investigated and hindered, diagnostic analysis for shaping decisive interventions should be firstly performed for the most widespread and significant kinds of malfeasance due to private benefits, so as to produce a bigger echo for curbing contingent and minor types of corruption.

2.8 Concluding remarks: The need for a systemic focus

The previous research has provided the academic community with specific and multidisciplinary studies about the disparate features of corruption, which – it is recognised – can be to sum up into the abuse of entrusted power for private benefit.

Corruption has been analysed from different perspectives and by adopting equally disparate techniques and methodologies in order to improve the understanding of the phenomenon and try to tackle its consequences for society.

Structural and individual causes of corruption are essential to explain the phenomenon, even if research results may appear ambiguous. Indeed, the figures of corrupter and corrupted and their tools are constantly in evolution, but always rely on trust relationship to make the corrupt effort successful. As such, the context-specific characteristic of the phenomenon at hand requires a narrower perspective to be opportunely understood and to have some chances to curb it.

Given the recognised lack of attention in the literature on local realities in spite of their immediate proximity with citizenry, a branch of research confirms the necessity of deepen local government research to provide for quick, feasible and shareable anti-corruption interventions able to hinder the displacement of public resources and enhance, preserve or restore good

performance of public bodies, in order to ensure effective and efficient public service delivering.

Concluding, a systemic perspective at local government level, being coherent with the neo-institutional approach, seems to be opportune to allow researchers, practitioners, policy- and decision-makers to design and implement feasible and successful anti-corruption strategies. Indeed, in explaining deviance towards corrupt behaviours within organised structures, a system focus has the advantage of stressing on routines, culture, legal and social rules (Ashforth & Anand, 2003; Jancsics & Jávör, 2012), thus embracing both the organisational and the environmental factors affecting and being affected over time by misconducts for personal gain.

CHAPTER 3

MEASUREMENT OF AND MEASURES AGAINST CORRUPTION IN PUBLIC PROCUREMENT¹

3.1 Introduction

Measuring corruption has a crucial role for local policy- and decision-makers in corroborating its occurrence risk, estimating its possible effects on public performance, as well as designing and adopting opportune measures to prevent and repress it.

Unique characteristics of corruption and processes where it roots need a specific focus in carrying such analyses out, also provided that non-customised anti-corruption efforts rapidly become vague and blurred due to uncertainty, complexity and dynamicity of the phenomenon. Accordingly, procurement represents one of the most significant, transversal and damaged activities of local governments by corruption (World Bank, 2007) and, as such, it deserved a special attention – even if non-exclusive – in this research project.

Therefore, this chapter aims at answering the following questions: *Is it possible to measure corruption? What are the advantages and shortcomings of the extant approaches to detect corruption practices generally, and in public procurement corruption specifically?*

PMSs may contribute to strengthen the informative capability of the common practices of detection and measurement of corruption in public procurement, giving adequate support to P&C processes for copying with it.

Nevertheless, common key performance indicators (KPIs) may be not completely suitable for management of performance, as they should include a risk component in their construction. Provided that they generally ignore the feedback structure underlying the organisational processes to which they refer, the use of dynamic indicators within a systemic framework may result a solution to prevent and repress corruption in public procurement.

In the first part of this chapter, a broad overview on the common methods to measure the general phenomenon of corruption is conducted. Then, measures of prevention and

¹ In compliance with the Emerald's Copyright Transfer Agreement, submitted by the author on the 1st of February 2021, some parts of this chapter, sections 3.5 and 3.6 in particular, are based on the article: Gnoffo, S. 2021a. A Dynamic Performance Management Approach to Frame Corruption in Public Procurement: A Case-Study. *Journal of Public Procurement*, 21(1): 75-96. © 2021, Emerald Publishing Limited.

repression suggested by the prevalent literature are explored. It follows an identification of the possible forms of corruption that commonly occur along the public procurement phases and an analysis of the methods through which corruption in public procurement is conventionally measured by scholars and practitioners.

3.2 Corruption measurement: Main practices and issues

To measure corruption is a current and very debated issue in several arenas, especially because of the difficulties and error margins that whatever adopted measurement strategy implies (Monteduro et al., 2013: 23). To probe actual levels of corruption directly and objectively is practically impossible (Kaufmann, Kraay, & Mastruzzi, 2006: 3; Lambsdorff, 2001a: 5) due to its secrecy, the complex set of variable interactions and processes characterising it, as well as the existence of various metrics (Golden & Picci, 2005: 37).

However, it is broadly recognised that:

- corruption can be and is being measured²;
- evidences of corruption can show themselves in many forms, rather than through simple documentation;
- although corruption indicators are not precise and accurate, they can be useful to develop policies to hinder it (World Bank, 2007: 5).

Research about corruption measurement has become simpler over time thanks to national and cross-national comparative studies and data provided by international institutions, such as Transparency International, the World Bank, the European Anti-Fraud Office (OLAF), the PRS Group, and other disparate anti-corruption agencies dispersed throughout the world. They usually rely on data elaborated to create two different kinds of indexes, that is people's *perception-based* and *experience-based indexes*. Most of used corruption data and information refers to the former, as retrieving experience-based data is quite rare (He, 2016: 271).

Perception-based – or subjective – indexes can be either national or sub-national (A.N.A.C., 2013) – see Table 3.1. Among the others, the first group includes, for instance, the Corruption Perceptions Index (CPI), the Global Corruption Barometer (GCB), the Bribe Payers Index (BPI), elaborated by Transparency International; the Control of Corruption Index (CCI)

² Corruption can be measured by:

- gathering the informed views of significant stakeholders;
- tracking countries' institutional features;
- careful audits of specific projects.

Cf. Kaufmann, D., Kraay, A., & Mastruzzi, M. 2006. *Measuring Corruption: Myths and Realities*: 5: World Bank, Draft, May 1st, 2006., p. 1.

and the World Business Environment Survey (WBES), elaborated by The World Bank; the Business Environment and Enterprise Performance Survey (BEEPS). All of them give a score to countries about their level of endogenous corruption by basing on studies of sources that are typologically, methodologically and extensionally different (Monteduro et al., 2013: 27). The second group instead includes subjective indexes, such as the Governance Anti-Corruption (GAC) Country Survey, the GATEway Project and the Quality of Government (QoG) Institute's Indicators.

Table 3.1. Definitions of the most widespread perception-based corruption indexes.

Index	Definition
Corruption Perceptions Index (CPI)	The CPI searches for measuring the perceived corruption in the public sector in 180 countries throughout the world, according to businesspeople and expert assessments. It assigns zero to countries being highly corrupt and 100 to those which are considered 'clean' (Transparency International, 2020b).
Global Corruption Barometer (GCB)	The GCB is a worldwide survey assessing the citizens' personal experience of kickback, their perceptions of country-level corruption and their readiness to oppose to it (Pring, 2017: 3).
Bribe Payers Index (BPI)	The BPI classifies 28 large economies on the basis of the perceived probability of native enterprises to pay kickbacks outside their national boundaries. In addition, the <i>Bribe Payers Survey</i> assesses cross-sectoral perceptions of kickback in the business field and investigates various kinds of bribery from one sector to another (Hardoon & Heinrich, 2011: 2).
Control of Corruption Index (CCI)	The CCI detects perceptions of abuses of public office for private benefit, distinguishing between 'petty' and 'grand' corruption, as well as estimating the degree of 'state-capture' by lobbies (World Bank, 2019a: 1).
World Business Environment Survey (WBES)	The WBES surveys a sample of about 100 enterprises per each Member Country of the World Bank and, through an unchanging methodology, assesses the business states and structural conditions enabling entrepreneurial growth, such as governance, economic policy, different barriers, law and services at local level (Batra, Kaufmann, & Stone, 2004: 2).
Business Environment and Enterprise Performance Survey (BEEPS)	The BEEPS aims to capture businesses' perceptions related to the environment where they normally operate, by means of a survey administered to a typical sample of a particular private sector asking for questions about corruption, crime, access to credit and performance measurement (European Bank, 2019).
Governance Anti-Corruption (GAC) Country Survey	The GAC integrates macro analysis on corruption with sub-national data retrieved by administering surveys to citizens, entrepreneurs, and public officials. It uses surveys at local level to identify forms, sources and institutions where corruption occurs frequently, as well as to value corruption costs and advance tackling reforms (A.N.A.C., 2013: 8-9).
The GATEway Project	The GATEway Project investigates the field of corruption measurement by singling out possible gaps in the state of the art, outlining new assessment tools and effectively applying the extant ones according to the needs to address (McDevitt, 2012: 3).
The Quality of Government (QoG) Institute's Indicators	The QoG is, firstly, broken apart into four categories, such as corruption and public administration performance, and, secondly, summarized into a unique national and regional index (A.N.A.C., 2013: 9).

In general, relying on perception-based corruption measures may be a good solution where the analysis requires comparisons at cross-national level, detections of important aspects of prevention policies and integrity promotion, as well as estimations of the possible effects of corrupt practices (Monteduro et al., 2013: 26). In addition, perception-based indexes are

considered more reliable in countries where information about corruption is retrieved by a higher number of surveys, since a low number of available surveys may lead to systematic biases in the analysed dataset, thus causing less-reliable scores and making this kind of indexes useful just where corruption is less prevalent (Golden & Picci, 2005: 39-40).

During the last two decades, a body of literature highlighted not only that there is a significant gap between perceptions and experiences (Clausen, Kraay, & Nyiri, 2011), but also how the use of perception-based indexes leads to various disadvantages (Abramo, 2008; Andersson & Heywood, 2009; He, 2016; Knack, 2006; Ko & Samajdar, 2010; Olken, 2009; Razafindrakoto & Roubaud, 2010; Thomas, 2010).

Firstly, since they are built up through surveys, they may suffer of evident weaknesses and flaws due to subjective assessments by people interviewed, whose cultural biases may be conflated with corruption itself (He, 2016: 268; Lambsdorff, 2001a: 6). Besides, the aptitude of perceptions to be influenced by different interpretations and cultural schemes at local level was strongly emphasised (Monteduro et al., 2013: 27).

Secondly, interviewees may not consider any valid comparison of the corruption level of their country with foreign ones – thus adopting different definitions of corruption and evaluation standards –, or compare corruption to other less pressing issues of the same country, or even use too high cultural and social standards in their personal evaluations (Lambsdorff, 2001a: 6-7)³. Moreover – and thirdly –, the risk to underreport corruption involvement by respondents, which may lead to lack of accurate knowledge – or, at least, awareness about the problem – useful to express reliable perceptions (Golden & Picci, 2005: 39; Monteduro et al., 2013: 27), represents another typical cons.

Fourthly, the fact that people involved in most of these surveys either belong to the business world or are specialists in the field implies that other significant stakeholders, such as NGOs and common citizens, are not taken into consideration, so that results may lack of comprehensiveness and, therefore, be misleading.

Fifthly, it was detected that the speed in perception changes with no apparent logical reason, but produces visible effects on real corruption (Lambsdorff, 2001b: 2; Monteduro et al., 2013: 26-27). At this regard, mass media play an important role in the reliability of perception-based indexes, as perceptions may be affected by them in a way that respondents'

³ In particular, this intrinsic weakness is exacerbated when surveys are devised by asking about mere perceptions instead of first-hand experiences with corruption. Cf. Golden, M. A. & Picci, L. 2005. Proposal for a New Measure of Corruption, Illustrated with Italian Data. *Economics & Politics*, 17(1): 37-75.

formal declarations to surveys will not report their personal experiences, but will depend on media coverage and other external reporting (Lambsdorff, 2001a: 7)⁴.

Sixthly, the quality and the utility of governance indexes, such as the CPI and CCI, were widely criticized (Kaufmann, Kraay, & Mastruzzi, 2007; Knack, 2006; Kurtz & Schrank, 2007) by virtue of their composite nature undermining their internal comparability. In particular, these indexes aggregate data coming from various sources which, in turn, define corruption heterogeneously, gather opinions by disparate panels of respondents and adopt different methodologies (He, 2016: 272). Furthermore, most of statistical evidences obtained by adopting perception-based indexes show lack of robustness, since the consequential results change as the kind of index in turn changes (2016: 270). Finally, since most of the common widespread perception measures are aggregated, they do not allow one to know who most likely runs the risk to be influenced by corruption, what are possible effects of anti-corruption programmes, as well as to exam the phenomenon in specific regions, hence causing ineffectiveness and inefficiency of hindering strategies (Seligson, 2006: 386).

Given that the reliability of the information retrieved by surveys to elaborate this kind of indexes is actually unknown (Golden & Picci, 2005: 39), the CPI, the CCI and other similar composite indexes may not assess corruption levels on the basis of objective truth, but rather on subjective opinions and sensations (He, 2016: 270), which may not lead to valid results. Therefore, perception-based indexes may run the risk to become self-referential (Golden & Picci, 2005: 40). However, albeit subjective data may reflect generic feelings about corruption and since corruption does not leave track in any documentation, subjective data often provide with the best knowledge that one can obtain (Kaufmann et al., 2006: 1; Lambsdorff, 2001a: 6).

Alternatively, an important body of research (Bandiera, Prat, & Valletti, 2009; Bertrand, Djankov, Hanna, & Mullainathan, 2007; Di Tella & Schargrodsky, 2003; Ferraz & Finan, 2008, 2011; Fisman, Fisman, Galef, Khurana, & Wang, 2012; Fisman & Miguel, 2007; Golden & Picci, 2005; Lasthuizen, Huberts, & Heres, 2011; McMillan, 1991; Olken, 2006, 2007; Reinikka & Svensson, 2004, 2005; Sequeira, 2012) proposed the use of more objective, direct and specific explicative proxies of corruption outcomes.

To some extent, objective measures may improve cross-country comparability and overcome the subjective interferences mentioned above. These measures can be divided into

⁴ Precisely, the widespread publicization of corruption indexes themselves may affect respondents' answers to surveys because of the fact that they may report what they believe the corruption is and to what extent it acts within the context they conduct their lives according to the earliest results provided by specialized organizations like Transparency International. Cf. Golden, M. A. & Picci, L. 2005. Proposal for a New Measure of Corruption, Illustrated with Italian Data. *Economics & Politics*, 17(1): 37-75.

economic, if they rely on the use of proxies such as market indicators or statistics⁵, and *judicial*, if they use the number of condemnations, detentions, sentences and other juridical statistics related to already-emerged of corruption crimes committed by public officials according to the law (A.N.A.C., 2013: 11-12).

Nevertheless, the use of corruption-explicative proxies in place of the common practices may also result untrustworthy, since, even when inefficiency without private gain prevails over corruption-related waste, it does not mean that corruption is not a serious problem (Bandiera et al., 2009: 1305). Analogously, as transparency in public sector has become central in public reforms of OECD Countries, corruption has gained a higher attention, but it does not mean that corrupt phenomena have necessarily grown (Davis, 2009: 311).

Simply adopting quantitative data and information is not enough, as human behaviour may rely on creativity to bypass law and binding procedural rules. Likewise, considering corruption as deviation from legal rules allows one to rely on objective and detailed measures, but they are not suitable for prevention, are barely comparable at international level, strongly dependent on the efficiency of judicial systems⁶ and influenced by the citizens' trust in these systems (Monteduro et al., 2013: 24), as well as scarcely understood in terms of actual effect and exclusively linked to past legal judgements (A.N.A.C., 2013: 12).

Table 3.2 resumes the advantages and disadvantages of using subjective and objective indexes to measure corruption being described above.

Monteduro et al. (2013: 23-32) proposed three measurement strategies based on *juridical statistics*, *perception indexes* and *experience-based measures*, respectively. They arise from three fundamental forewords. Firstly, it should be established whether the phenomenon is understood in its broad sense of deviation from moral rules or according to a narrower legal sense. In the first case, the Authors suggest to adopt a *social rules criterion* to define corruption while, in the second case, they suggest a *legal rules criterion*. Secondly, it has to be understood whether one wants to detect either the *direct experiences* or just the *indirect perception* of people, so that either experience-based or perception-based indexes should be respectively adopted, in order to define the way to collect data. Thirdly, it is needed to establish whether the analysis is about *emerged* or *submerged* cases of corruption.

⁵ These measures, for instance, capture differences in public procurement prices, in the attempt to capture the money dispersion due to corrupt behaviour, or differences between expenditure and physical quantity of public infrastructures.

⁶ Monteduro and colleagues pointed out that a growth of sentences may be due to an improvement of the efficiency of judicial systems, rather than an actual increase of corruption. Likewise, a reduction in reporting may be explained through an equally reduction in trust in government and police, but not by a lower corruption level.

Measurement of and Measures Against Corruption in Public Procurement

Table 3.2. Advantages and disadvantages in using subjective and objective corruption measures.

Type of indexes	Advantages	Disadvantages	Examples of measures
Subjective	<ul style="list-style-type: none"> - Reliable in countries where information about corruption is retrieved by a high number of surveys and where corruption is less prevalent. - Useful for comparisons at cross-national level, detections of relevant aspects of prevention policies and estimating effect of corruption at macro level. 	<ul style="list-style-type: none"> - Suffering of weaknesses and flaws because of people's subjective assessment and opinions. - Aptitude of perception to be influenced by cultural schemes, even at local level. - Scarce heterogeneity of the categories of individuals involved in surveys. - Speed in perception changing with no logical reason and effect on actual corruption. - Risk to underreport corruption involvement by respondents and possibility of lack of awareness to express reliable perception by who is not involved. - Composite and aggregated nature undermines their comparability and makes impossible to probe effectiveness and efficiency levels of anti-corruption programs. - Lack of robustness of measurement methods and resulting findings. 	<ul style="list-style-type: none"> - CPI - GCB - BPI - CCI - WBES - BEEPS - GAC Country Survey - GATEway Project - QoG Indicators
Objective	<ul style="list-style-type: none"> - Explanation of specific corruption outcomes through opportune and fair proxies. - Improvement of comparability and overcoming subjective interferences. 	<ul style="list-style-type: none"> - For <i>economic measures</i>: limitations in distinguishing between corruption- and non-corruption-related reductions in public performance. - For <i>judicial measures</i>: no suitability for prevention; barely comparability at international level; strong dependence on the efficiency of judicial systems and the influence of citizens' trust in government; scarce understanding of actual effects of their usage. 	<ul style="list-style-type: none"> - For <i>economic measures</i>: market indicators and statistics. - For <i>judicial measures</i>: juridical statistics of emerged corruption.

A.N.A.C. (2013: 7) also considers *economic data*, so that corruption is defined as positive or negative according to an *efficiency criterion* that focuses on minimization of resource waste. Economic data allows analysts for a more objective approach in measuring corruption, since it relies on real or estimated values retrieved from disparate sources – e.g., accounting and statistical archives – useful to detect both emerged and submerged corruption.

All data types should not be considered separately in a stand-alone perspective. In addition to the shortcomings linked to people's perceptions and experiences seen above, corruption may overcome legal and procedural constraints thanks to people's creativity and ingenuity, and efficiency is just a condition of the broader effectiveness condition of any activity being prone to corruption. Notably, even when data and evaluations are highly reliable, they may lose meaningfulness if not properly associated to institutional efficacy. For instance, even when public procurement regulation is obeyed and efficiency degree is high thanks to

equally high competitiveness and low prices, goods or services purchased may not meet the required quality because of corruption agreements, thus causing citizens' dissatisfaction.

The discussed measurement typologies are summarised and exhibited in Table 3.3.

Table 3.3. Four possible corruption measurement strategies. Sources: Monteduro et al. (2013: 23) and A.N.A.C. (2013).

Measurement typology	Definition of corruption	Data collection method	Emerged/Submerged corruption
Juridical statistics	Juridical rules criterion	Direct experience	Emerged corruption
Perception indexes	Moral rules criterion	Perception	Submerged corruption
Experience-based measures	Moral rules criterion	Direct experience	Submerged corruption
Economic data	Economic rules criterion	Objective sources	Emerged and submerged

It emerges that whatever effort to measure corruption by using any kind of data involves elements of uncertainty (Kaufmann et al., 2006: 2). As such, measurement strategies should be considered systematically, in a way to reduce the interpretative ambiguity of analytical results.

Overcoming this issue requires an approach allowing one to understand the complexity of a specific environment and capturing the real cause-and-effect relationships among variables being, on the one hand, affected by corrupt behaviours and, on the other hand, able to impact on national, sectorial or organisational performance over time.

3.3 Prevention and repressive measures against corruption

There is no generic and always-valid model able to make an in-depth contextual diagnosis and simultaneously elaborate a univocal policy to hinder the abuse, misuse or omission of entrusted power for private gain. However, to fight corruption effectively requires both *ex-post* measures to *contrast* the phenomenon and *ex-ante* efforts to monitor, detect and intervene before corrupt facts or acts may occur (Ceschel et al., 2018: 124; Leotta, 2017), that is to *prevent* them.

Contrast measures are penal-repressive, come from legal justice and activate where law provides for a judicial intervention aimed at verifying single responsibilities (The State of the Italian Republic, 2012: 29). Beyond their legal aspect, they are generally *control-oriented* and include mechanisms aimed to guarantee accountability and correct use of discretion (Davis, 2009: 320).

On the contrary, prevention measures are aimed at identifying and inhibiting corruption opportunities, as well as all possible factors promoting their diffusion (The State of the Italian Republic, 2012: 30). Preventive measures are ordered to boost greater transparency and

awareness about what is not in line with ethics (Davis, 2009: 320). Some examples of preventive – or pre-emptive – measures are:

- the adoption of integrity rules and ethic codes for public servants, as well as of incompatibility and ineligibility limits (The State of the Italian Republic, 2012: 31-32);
- to foster training plans for organisational personnel (Hauser, 2018);
- the implementation of corruption risk management systems (Ceschel et al., 2018);
- the use of web-based open access services to manage relationships with citizens (Cho & Choi, 2004);
- the adoption of web platforms for public procurement procedures (Ferreira, Camões, Cunha, & Amaral, 2017);
- and so forth.

3.4 Process and procedures of public procurement and related risks of corruption

Local governments involve several of the multi-sector functions of a national government and, as such, it appears useful to consider them as a discrete sectors, provided that councils deal with the totality of public services as a whole, and whose distribution to citizens is their responsibility (Pyman et al., 2018: 2).

Despite that, hindering corruption implies the adoption of *ad hoc* strategies, which implies to opportunely single different kinds of corruption out and concentrate the anti-corruption effort on one form each time (Klitgaard et al., 2000: 27). Accordingly, given its fundamental role in the management of public resources, procurement activity deserves particular attention in exploring corruption phenomena, especially at local level, where providing customised support to policy- and decision-makers may be the only way to curb rooted pathological practices and improve the performance of local governments they steer.

Public procurement is the process through which public bodies acquire resources from companies, such as public works, goods and services, to realize their institutional activities (European Commission, 2019b). It represents a transversal activity of local governments, whose functioning is unavoidable and essential to foster private and public investments aimed at accumulating economic and social capital in local areas (Cavaleri, Guccio, Lisi, & Rizzo, 2019: 1).

Public procurement weights the largest share of government expenditure of a country – even up to 45% of public expenditures – and 20% of its Gross Domestic Product (GDP) (World Bank, 2007: 6). It produces a considerable impact on public service delivery and represents a significant strategic lever both to enhance effectiveness and efficiency of public

expenditure and to achieve multiple policy goals – e.g., stimulating innovation; making public tendering more accessible to small and medium enterprises, etc. (OECD, 2019: 134, 136).

Public procurement can be strategic (Guarnieri & Gomes, 2019), but it is also a high-risk activity (OECD, 2014: 142) and one of the most affected and damaged public activities by corruption (World Bank, 2007)⁷ due to the noteworthy financial amount of public contracts (Klitgaard et al., 2000: 117; Strombom, 1998: 22). As such, international agreements and regulations on public procurement, such as the WTO's Agreement on Government Procurement (GPA) (World Trade Organization, 2019) and the directive of The European Parliament and The Council of the European Union (2014), have pledged the most virtuous countries all over the world.

Corruption increases the number of public projects, enlarges their size and exacerbates their complexity and inefficiency, in a way that the average productivity of investments may be lower than one should expect (Tanzi & Davoodi, 1998: 1). Especially in public works, corruption is susceptible to provoke cost overruns⁸ and time delays (Cavalieri et al., 2019: 2), such that it reduces the potential benefits deliverable to citizens and, as a result, their trust in government (Heggstad & Frøystad, 2011: 2).

In public procurement, the principal ways to purchase works, goods and services are two: public purchasing and public tendering. Through the former – also called 'negotiated procedure' –, suppliers are directly chosen by public authorities, while the latter can assume different aspects in relation to both the discretionary degree of public organisations and the object of purchase (World Bank, 2007: 8). In particular, public tendering typically involves large scale projects, while purchasing does not need any public bidding due to its very limited financial entity⁹ (Heggstad & Frøystad, 2011: 3), even if they usually imply market sounding for the selection of best offers.

Along one or more stages of the procurement process, methods of corruption are disparate – e.g., bribery, kickback, bid rigging, fraud (Heggstad & Frøystad, 2011: 7-8) – and malfeasances can be demand- or supply-driven, depending on the situation in which

⁷ In the case of systematic corruption, the impact of malfeasances may account more than 30% of public procurement. World Bank. 2007. Corruption and technology in public procurement. Washington, D.C.: The World Bank., p. 7.

⁸ On the theme see Guasch, J. L. 2004. Granting and Renegotiating Infrastructure Concessions: Doing it Right, *WBI Development Studies*. Washington, DC: World Bank.

⁹ For more details on thresholds of public contracts cf. European Commission; Thresholds; https://ec.europa.eu/growth/single-market/public-procurement/rules-implementation/thresholds_en; May 29, 2019. Special provisions are usually given by specific national regulations.

interferences are, respectively, requested by public officials or offered by potential suppliers (2011: 2).

Corruption may occur both during the budget planning phase and the budget execution¹⁰ one and may differ in relation to specific kinds of goods or services (Søreide, 2002: 2). For instance, a R&D-based supply usually shows different patterns from a complex project-based, a standard or a customised one (Rose-Ackerman, 1999), such that corrupt germs may insinuate themselves in procurement stages by exploiting supply conditions or features being both complex and, unsuspectingly, simplistic. Indeed, in direct purchasing, malfeasances are usually more difficult to detect than in public tendering, because of laborious inspections in quantities and qualities of consumable supplies (1999).

Rose-Ackerman (1975) singles out ‘number of providers in the market’ and ‘purchase preferences of public organisations’ as two fundamental parameters affecting corruption degree in procurement. Theoretically, it is possible to distinguish infinitive potential combinations of them, but four basic configurations constituting extreme situations – see Figure 3.1 – can be highlighted, that is:

- a multitude of providers and clarity about the object of the purchase;
- a multitude of suppliers and unclarity about the needed product or service;
- one provider and clarity about the object;
- one supplier and unclarity about what is actually requested by the public institution’s processes to create public value.



Figure 3.1. Corruption probability depending on the number of providers and clarity of the object of procurement.
Source: Author’s elaboration based on Rose-Ackerman (1975).

The likelihood that corruption may occur when the first two configurations are of the case is low, since the financial incentives to corrupt are low as well (Ferwerda, Deleanu, &

¹⁰ These two moments disclose the typical management control cycle, which is articulated in: programming, budgeting, operating and reporting, evaluation. For an in-depth study see Anthony, R. N. & Welsch, G. A. 1974. The Management Control Process. In R. D. Irwin (Ed.), *Fundamentals of Management Accounting*.

Unger, 2017) by virtue of sufficient information availability for both the purchaser and the supplier, an adequate competition level and a negligible degree of uncertainty of the object of purchase. Nonetheless, Søreide (2002: 4) argues that even when several suppliers are involved in a public contract assignment, they may be led to think that their competitors are inclined to pay kickbacks to get a contract and accept to comply with the ‘rules of game’ too¹¹. Indeed, there is no guarantee on whether or not competition is able to ward corruption off, although it may enhance openness and transparency degrees of bidding and, therefore, create pressure in justifying inefficiencies and low quality of provisions (Heggstad & Frøystad, 2011: 3).

A generally-accepted principle in public procurement is that contracting authorities have to single out and select the most economically advantageous proposal on the basis of the *best price-quality ratio* (Estermann & Kupriyanova, 2018: 12). It means to create value for money, which implies a trade-off between quality and procurement cost that can be evaluated through the consideration of the contractual nature, stakeholders’ expectations and resource availability (Erridge, 2009: 100).

Since it is not always possible to choose the best available bid due to inadequate information about either the quality of supply or the collective need for which the procurement is requested, uncertainty often reduces supply effectiveness and efficiency (Arrow, 1963; Savedoff & Hussmann, 2006: 5). In particular, uncertainty may allow a provider to exploit an advantage position thanks to the existence of information asymmetries with the contracting authority, such that the purchased product, service or work might instead be obtained in the market at better conditions or – even worse – it might not be completely pertinent to the activities that a public body has to perform (2006: 5).

Based on what above, risk of depletion or misappropriation of public resources due to abuse, misuse or omission of public power for private benefits may insinuate itself along one or more of the five stages of the typical cycle of public procurement depicted by the European Commission (2018: 16) and showed in Figure 3.2.

¹¹ In cases of high-profile corruption, expedients and criminal acts may configure situations characterised by formation of cartels among tenderers, prevention from bid submissions by means of physical threats to bidders, by tampering tender documents or by delaying calls for bid and contract terminations. Cf. World Bank. 2007. Corruption and technology in public procurement. Washington, D.C.: The World Bank.



Figure 3.2. The typical phases of public procurement. Source: Adapted from European Commission (2018: 16).

The World Bank (2007: 10) detected some typical wrongdoings that can occur in each of them¹²:

- during the phase of preparation and planning, the supply decision may favour private interests instead of addressing existing needs through specific purchase requirements;
- in the publication and transparency phase, some risks are linked to abuses of exceptions in participation to a tender, to limitations to significant stakeholders' participation and to evaluation criteria elaborated *ad hoc* to support some bidders or are too vague and/or not objective;
- during the phase of tendering process, contracting authorities may contain the number of bidders, for instance, by reducing the time to submit an offer, not adequately publicising a tender or increasing information asymmetries among bidders to benefit some of them¹³;
- in the evaluation phase, criteria may not be clearly stated and objective, so as to leave room for manipulations;

¹² Klitgaard and colleagues also propose a framework for public procurement corruption including four stylised steps of procurement process for which they highlight: a) types of corruption and problems; b) conducive conditions to corruption; c) indicators of potential corruption; d) conventional policy remedies to stem or prevent corruption. The Organisation for Economic Co-operation and Development (OECD) also provides similar list of integrity risks in the procurement process. For more details, cf. Klitgaard, R., Maclean-Abaroa, R., & Parris, H. L. 2000. *Corrupt cities: a practical guide to cure and prevention*: 180. California: Institute for Contemporary Studies: Institute for Contemporary Studies., pp. 120-135; OECD. 2016. *Preventing Corruption in Public Procurement*: 32. Paris, France: OECD., p. 9.

¹³ Moreover, public contractors may collude with some bidders to influence prices, as well as bidders may share the market by losing a bid expressly or even avoiding to present any offer.

- in the awarding phase, results may not be adequately publicised and/or possible subcontractors may be unaccountable or used to bribe contracting authorities;
- finally, during the contract management and monitoring stage, contracts may be renegotiated and upset to establish more favourable conditions for winners and/or supervising instances may be influenced to alter inconsistencies in the performance of supplies and/or public contractors may misrepresent procurement reports and suppliers may pay kickbacks to obtain authorisations requested in specific economic sectors.

Across these phases, factors such as lack of expertise, accountability and transparency, presence of conflicts of interest with public officials, huge financial endowment, dearth of adequate monitoring capacity and effort, political influences and ambiguity of regulation may generate vulnerabilities that are difficult to detect, so that both citizens' trust in government and public and private resources may ineluctably undermined (World Bank, 2007: 9, 11).

3.5 Red flags in public procurement: Prevalent literature and flaws

In relation to a system or process, corruption is generally modelled as a *risk* and measures the institutional vulnerabilities enabling wrongdoings for private gain by means of an occurrence probability factor and the related impact, representing a more precise estimation that can be compared or integrate with perception and experience indexes (McDevitt, 2011: 1-2) discussed above.

Most of the relevant research suggested the usage of corruption risk indicators called 'red flags', which represent the most common alert tools of corruption along the different phases of public procurement process. They are based on objective measurement approaches relying on proxy variables, such as supply prices, competition level, contract awarding selection criteria, and so forth.

Various scholars and practitioners proposed heterogenous models framing sets of red flags – for instance, Rabl and Kühlmann (2008), Samuel (2009), Ferwerda et al. (2017), and Galli et al. (2018). Among the others, Ferwerda et al. (2017), based on the earlier work of Kenny and Musatova (2011), identified significant red flags by analysing some cases of detected and non-detected corruption in public procurement to support investigation, detection and contrast of wrongdoings along the underlined process.

Red flags have also been used to develop corruption measures. Interestingly, Fazekas, Tóth, and King (2016b: 369), by means of big data, developed a composite indicator through the identification of possible signals linked to restrictions of competitive procedures and contract awarding in procurement. The Authors found that cases where, for example, firms

with higher profitability, higher contract-value-to-estimated-price ratio and higher possibility of political interferences also show higher level of corruption risk. The ‘Corruption Risk Index’, as it was labelled, uses a normalised simple average of individual risk indicators related to the typical procurement process (Fazekas & Kocsis, 2017: 158).

In an extensive work, Fazekas, Cingolani, and Tóth (2016a: 5) elaborated a set of objective proxies involving both tendering risk indicators and warnings, such as: political connections between bidders and political office holders; the presence of hidden corrupt agreements that exploit winning bidders to extract rents and reward all participants of the deal; the presence of bureaucratic vulnerabilities in formal structures used to favour specific tenders.

Despite their remarkable usefulness, the reliability of red flags is not always ensured, since some of them may not even be *correlated* with corruption: particular features and traits are, indeed, present both in corrupt and in noncorrupt public procurements, and this makes their signalling capability unreliable (Ferwerda et al., 2017: 261). In addition, part of the literature (Fazekas et al., 2016a: 33-34; Ferwerda et al., 2017: 246) recognised that construction of red flags may be affected by an econometric shortcoming called ‘selection bias trap’, which implies carefully choosing atypical samples to elaborate risk indicators that cannot be extensively used to ground deductions about distinctive characteristics of corrupt procurements from a single case-study (Ferwerda et al., 2017: 246-247). For this reasons, even the use of a broader set of warnings requires an unambiguous definition of the scope of their applicability, validity and reliability (Fazekas et al., 2016a: 33).

Some shortcomings in corruption measurement may also involve common risk management systems (RMSs). In making use of red flags, such systems may encounter some applicative difficulties in highly-bureaucratized organisational contexts (Ceschel et al., 2018), such as: opportunism exploiting formalisation to demean the diagnostical capability of such systems (Power, 2007); resistance to avoid interferences from formal controls (Courpasson, Dany, & Clegg, 2012); possible frictions in procedural mechanisms and decision-making processes, with consequential efficacy and efficiency losses due to excessive bureaucratisation (Anechiarico & Jacobs, 1996); blind reliability on RMSs, which leads to poor learning processes and low capability of critical understanding that undermine adaptation to environmental changes (Merton, 1949).

Finally, even though it was empirically proved that the use of e-procurement technologies may realistically improve transparency and accountability of regional and local governments (Pina, Torres, & Royo, 2007), possible consequential benefits in terms of data and information collection to support corruption measurement and control may be reduced by

specific features and limits of e-procurement technologies themselves, which not always ensure broad participation of bidders, objective selection of evaluation criteria and publicity of calls for bid (World Bank, 2007: 19-20).

Therefore, even if sophisticated bid-monitoring procedures and red flags systems are implemented, control and measurement of corruption are not taken for granted. It emerges that, since honesty always requires clear and detailed cultural, political and technological efforts (Ferreira et al., 2017: 1), fostering organisational reaction to hinder corruption needs to link measurement to management.

3.6 From a static to a dynamic perspective: Performance indicators to detect corruption

PMSs have been used at the aim to enhance budgeting process, human resource management (HRM), public services, communication with citizens, public accountability, contracting process (Wholey & Hatry, 1992: 604, 609; Wholey & Newcomer, 1997: 98), and many other organisational processes. In fact, public organisations benefit from performance monitoring systems in terms of implementation of benchmarking activities, recognition of improvement areas, communication of public performance to external stakeholders – e.g., citizens, academics, media, firms – and cooperation aimed to produce desired outcomes on communities (Kopczynski & Lombardo, 1999: 133).

The complexity of corruption requires that characteristics of the object or process to submit to accurate performance monitoring for preventing and repressing it need to be clearly singled out. At this aim, the Amigoni's (1978) conceptual framework, defining the organisational features and environmental conditions that are significant in designing and implementing management control systems (MCSs), can be adapted to the case of public procurement process.

Accordingly, along its different stages, public procurement involves interdependent departments inside public organisations – above all, financial and technical offices – requiring adequate coordination and, quite often, cooperation. This interdependency increases the degree of management complexity together with other interconnected and mutually-affectable objective factors, such as strictness and rapid change of legal and bureaucratic rules, formal responsibilities, heterogeneity of supplies, presence of multiple bidders; as well as subjective elements, which are mainly linked to the expertise of managers and personnel.

Procurement also implies a high degree of continuity per se, as it is made by tendentially-stable operations and procedural rigidity for which the control process makes use

of protocols and formal tools being employed continuously and regularly (Amigoni, 1978: 80). As such, it is usually characterised by a ‘tight’ managerial style of control, which implies a poor participation of staff in decision-making (1978: 81).

Nevertheless, the high rate of change and the multiple law sources – local, regional, national, supranational and international – of applicable regulation may, on the one hand, counterbalance the trend stability of procurement processes and, on the other hand, boost environmental complexity and uncertainty that public organisations have to deal with. It follows that the unpredictable individuals’ willingness to engage in corruption may find fertile ground in the emersion of new incentives, in the growth of the already-existent ones and/or in the reduction or removal of deterrent factors, which are made possible by weaker or more flexible legal provisions that, in turn, might exacerbate the tangled and turbulent system status. This especially occurs through gradual quality deprivation and rigidity invalidation of procurement-related tools and procedures, which are characterised by lack of detail, relevance, selectivity of procurement information and growth of informative asymmetries along the overall procurement process.

In the light of what above, wisely-designed and implemented PMSs may contribute to strengthen the explanatory potential of common red flags in procurement through the contextualisation of noteworthy issues, the clarification of the meaning of relevant data and information at system level, and the identification of organisational resources and levers being useful to strategically address them.

With this respect, Galli et al. (2018) propose a model integrating performance management and risk management cycles, stressing on their reciprocal coherence and on the capability of KPIs to alert on possible presence of corruption. RMSs are, indeed, coherent with the performance management life-cycle¹⁴, provided that both the frameworks are developed through collection, measurement, processing, incorporating and usage of data and information, in order to make informed organisational decisions (Bouckaert & Halligan, 2007; van Dooren, Bouckaert, & Halligan, 2015). Therefore, measuring corruption risk in procurement can contribute to enhance the related management of performance at the extent to which it allows policy- and decision-makers to capture and estimate possible effectiveness and efficiency losses of public action provoked by misuses of entrusted power for personal advantage.

¹⁴ A declination of the life-cycle approach to performance management is provided by van Helden, G. J., Johnsen, Å., & Vakkuri, J. 2012. The life-cycle approach to performance management: Implications for public management and evaluation. *Evaluation*, 18(2): 159-175.

By supporting P&C processes that are essential for dealing with corruption, the effective integration of PMS with RMS may enable organisations to elaborate feasible anti-corruption strategies which successfully deploy relevant resources on the basis of consistent sets of indicators that work both as signals of the presence of hidden corrupt practices and of potential malfeasances. As far as possible, this requires few, detailed and measurable targets to deal with managers' information processing limitations, which also include qualitative variables expressed quantitatively by means of opportune proxies (Maciariello, 1980: 9).

At this regard, static view rooted in the culture and practice of performance management often creates confusion between the meanings of 'index' and 'indicator': differently from indicators, indexes depict the state of an investigated system and, as such, are just suitable for performance measurement, but not even for performance management, since they do not affect any performance measure (Bianchi, 2016: 83). As such, KPIs might not always be assimilable to *critical levers* or *success factors for corruption prevention and repression* that actually influence performance, but they may only depict the current status of performance of a given system.

The simplistic use of KPIs as red-flag indicators of corruption may also imply the reproduction of the conceptual and structural flaws that were emphasised by Bianchi (2016: 66-68) in relation to the use of balance scorecards in performance management and strategic planning. In particular, corruption measurement and monitoring through KPIs that are not causally and dynamically – i.e., over time – linked each other disregard feedback structures of relevant organisational processes and sub-processes, so that it is not possible to identify those strategic resources to deploy and re-integrate consciously and sustainably, in order to adequately prevent or repress repercussion of corruption on performance.

Uncertainty permeating corruption in all its forms is such that no change of economic, financial and/or social performance of organisations can be univocally ascribed to corrupt practices, as it often stems from 'simple' – although pathological – management inefficiencies¹⁵. For these reason, in order to integrate PMS and RMS, managers must prove their capability to investigate organisational activities and processes, for which they are accountable, both in terms of performance measurement and evaluation and in terms of political-economic 'opportunity windows' of corruption (Galli et al., 2018: 153).

¹⁵ At this regard, Bandiera and colleagues single out 'active waste' from 'passive waste', where the former only is linked to corruption. For more details, cf. Bandiera, O., Prat, A., & Valletti, T. 2009. Active and Passive Waste in Government Spending: Evidence from a Policy Experiment. *American Economic Review*, 99(4): 1278-1308.

Considering that, as it was previously mentioned, the assessment of risk of corruption operatively implies to detect system and/or process vulnerabilities enabling corruption opportunities (McDevitt, 2011: 1), KPIs should be adjusted by a *risk component* to arrange preventive and repressive measures by virtue of the necessity to capture the likelihood and impacts of – past, current¹⁶ or future – corruption episodes, thus coping with difficulties to label management exceptions – i.e., gaps between actual and desired levels of KPIs – as either a corruption-related or a non-corruption-related waste.

An insightful framework integrating PMS and RMS should also emphasise the role of subjective factors – especially linked to organisational culture – driving corruption, strictly depending on the context of reference and going beyond the features of processes under scrutiny. Accordingly, repressive and preventive measures may take advantage from designing consistent performance indicators allowing decision-makers to trigger cultural and political change and push it away from extant and potential deleterious practices.

Therefore, coherently with the neo-institutional approach of analysis of corruption in political-administrative systems (Vannucci, 2012: 70-73; 2015), adjusted KPIs should also include socio-cultural factors and their dynamic co-evolution with the political-economic ones over time, with the aim to outline structural patterns and paths that may either encourage or mortify corrupt behaviour in the system studied.

As it was highlighted above, particular situational features activating red flags in public procurement connote both corrupt and non-corrupt practices, so that the discriminating ability of these ‘indicators’ may not be important (Ferwerda et al., 2017: 261). They would instead require a combination with other approaches to gain a more insightful portray of particular cases of procurement process (Heggstad & Frøystad, 2011: 18).

Assuming that corruption can be intended as either an indicator of the transparency and fairness levels of a process or the gap between the actual and a desired situation (McDevitt, 2011: 1-2), the activation of repressive measures may proceed from the extant MCSs, by means of which decision-makers try to guarantee the effective and efficient accomplishment of the objectives linked to the organisational processes (Anthony, 1965: 17). Based on that, in procurement process, the supervisor may be able to verify that the subordinate performs the task for which he/she is made accountable on the basis of standards provided by the regulation in force. In the case where this last is not totally or partially respected, the principal may

¹⁶ The estimation of risk of corruption is also considered for events being occurring and for those already occurred in the past by reason of their inherent secrecy and the uncertainty in identifying their impacts.

intervene according to the typical cybernetic (Hofstede, 1978; Maciariello, 1980), that is, diagnostic (Simons, 2007a) mechanism of management control.

Nonetheless, the particular hidden and delayed nature of corruption may elude the common mechanisms of MCSs and actually exists despite no performance exception arises. It is the case, for instance, of efficient prices for a supply, which does not necessarily mean that no corruption occurred in assigning the provision to a particular bidder. In particular, the compensation for a preferential awarding may not hypothetically be given in cash or it may be improper, difficult, or even impossible to compare the price paid with other similar provisions, because of its peculiar features.

In order to promote the adoption of preventive anti-corruption measures, feedforward processes of MCSs (Simons, 2007b) may stimulate and support the search of potential weaknesses of the system under scrutiny that could be able to open breaks through regular conduction of public activities. Keeping ‘cognitive radar’ constantly active allows organisations to perceive emerging and blurred phenomena that could be otherwise ignored by the diagnostic approach of MCSs, which may instead result fallacious, even when sophisticated technology is adopted. Hence, possible signals of organisational or environmental threats may represent intermediate results of the overall organisational performance, which may help decision-makers to anticipate apparently uncontaminated performance exceptions.

It emerges how risk-adjusted and contextualised KPIs may not only allow managers and personnel to identify and report felonies being already occurred, but also ward off possible future illicit acts in their nascent phase, question extant organisational policies against corruption, anticipate and intervene on vulnerabilities and enhance governance structures, coherently with what Argyris (1982) defines ‘double-loop learning’ process. In so doing, measurement strategies of corruption being originally provided for setting up repressive measures may be later reviewed for elaborating preventive ones, so as to elicit integrity culture among public organisations’ actors dynamically according to a far-sighted managerial logic.

3.7 Closing remarks: The need for a causal and dynamic approach

Each with its advantages and disadvantages, perceptions, experiences, legal and economic data are significant tools to probe the actual existence of some kinds of past, current or possible future corrupt behaviours.

Among the disparate forms of corruption, wrongdoings in public procurement are the most important and widespread. Factors such as poor accountability and transparency,

inadequate skills for competence, huge financial endowment and control, political influences and ambiguity of regulation may exacerbate systemic complexity and allow corruption across all the phases of procurement.

The prevalent research that dealt with corruption in public procurement has adopted red flags, as risk indicators linked to the different process stages. Nevertheless, red flags may be affected by the so-called ‘selection bias trap’ (Ferwerda et al., 2017: 246-247) and their use always requires an unambiguous definition of the scope of their applicability, validity and reliability (Fazekas et al., 2016a: 33). Furthermore, this measurement strategy is affected by the common applicative difficulties of RMSs within highly-bureaucratised contexts, such as opportunism and learning degradation (Ceschel et al., 2018). As a result, even where best practices and procurement conditions are ensured, control of corruption needs articulated measures of adequate political, managerial, technological and, especially, cultural substance.

Due to the conceptual misunderstanding of the actual meaning of ‘index’ and ‘indicator’ (Bianchi, 2016: 83), KPIs might not always be assimilable to critical levers for setting successful preventive or repressive corruption strategies, provided that they are not usually framed within causal relationship structures underlying the organisational processes to which they refer.

KPIs should be, therefore, adjusted by a probability component weighted by its impact on performance in order to cope with uncertainty of corruption, which implies that no exception can unambiguously be attributable to practices of misuse of entrusted power for private benefit. Furthermore, according to the broad neo-institutional perspective of analysis, the dynamic co-evolution of socio-cultural and political-economic factors linked to corruption represents an unavoidable premise of any model aimed at dealing with it wittingly and purposefully in the long-term.

Concluding, the integration of *ad hoc* risk-adjusted KPIs within a causal, dynamic and systemic framework of performance management that focuses on salient elements of public procurement process, on the one hand, may remedy where mechanistical control fails to capture actual presence of corrupt dynamics in public procurement and, on the other hand, provide decision-makers with prompt signals arising from the emergent but clandestine corrupt practices.

CHAPTER 4

INTRODUCING THE DYNAMIC PERFORMANCE MANAGEMENT AND GOVERNANCE APPROACHES FOR DESIGNING AND IMPLEMENTING ANTI-CORRUPTION POLICIES

4.1 Introduction

A stand-alone perspective focusing on single causes of corruption in public procurement may induce key-actors to vague and misunderstood attributions to specific factors considered causally-linked to inappropriate practices. This may provoke an answer in terms of public action that, rather than reducing system complexity and uncertainty, may exacerbate the actual understanding of the phenomenon, as well as produce unintended side-effects on performance in the medium- and long-run.

Coherently with the neo-institutional paradigm that explains corruption in political-administrative contexts (Vannucci, 2012: 70-73; 2015), purposeful endeavours to curb such a phenomenon require an approach being as comprehensive as needed in terms of system knowledge and enabling policy- and decision-makers to frame those governance arrangements and enforcement dynamics that influence trade-offs in complying with corrupt practices. Moreover, this approach should consider trade-offs in time of such a decision-making process, so as to depict the mutual evolution of the related incentives and disadvantages over specific time spans.

At the same time, measuring corruption through KPIs is, in principle, an effective strategy as long as KPIs include a risk component and PMSs do not disregard the feedback structure underlying corrupt mechanisms affecting relevant outputs, outcomes and resources, on which to intervene by leveraging KPIs themselves. Contrarily, they remain static measures, such that possible anti-corruption efforts may unintentionally increase the uncertainty and complexity of corruption occurrences.

Therefore, a methodological approach embedding causality is required.

The DPM approach (Bianchi, 2016) addresses all the methodological requirements highlighted above and, as such, it can foster organisational and community learning processes in designing and implementing anti-corruption public policies at any government level.

With the aim to understand the extent to which DPM can support anti-corruption strategies in institutional contexts characterised by specific public management archetypes, identifying and understanding specific political-administrative configurations constitutes a fundamental premise to detect corruption opportunities and deterrents, as well as to provide policy- and decision-makers with appreciable advises for preventive anti-corruption measures.

Therefore, this chapter attempts to answer the following questions: *To what extent may the dynamic performance management and governance views provide for more effective frame of corruption at local level? How do such perspectives work in different public governance settings?*

Accordingly, in the first part of this chapter, the Old Public Administration (OPA), New Public Management (NPM) and New Public Governance (NPG) archetypes are explored to establish the extent to which their structural elements may theoretically contribute to produce advantages and disadvantages in terms of anti-corruption effort.

Subsequently, a description of the main features and tools of DPM is proposed and the fundamental concepts of the System Dynamics (SD) methodology – from which it stems – are outlined. The chapter ends with a discussion on possible benefits that the conceptual framework of DPM may generate in exploring corruption in different institutional arrangements, according to both an *inside-out* and an *outside-in* perspective.

4.2 Three performance management archetypes to cope with corruption

4.2.1 Old Public Administration, New Public Management and New Public Governance

In the last decades, the OPA, NPM and NPG models have enlivened the public administration debate in policy design, implementation and service delivery. Albeit there is not an always-tidy distinction between these bodies of managerial practices and some of their aspects can exist together (Osborne, 2010: 2), they exhibit peculiar features being essential to distinguish their contents and implications.

The OPA arises from the unitary state concept, according to which public managers and staff are accountable for realising governmental guidelines by virtue of hierarchical mechanisms driving resource allocation in a rational employment of public money, both in production and in delivering of public goods or services (Day & Klein, 1987; Osborne, 2006: 382; 2010: 8; Simey, 1988). In particular, policy implementation and service delivery have political nature and, as such, their focus is mainly on the administrative procedures aimed at guaranteeing equality of treatment to all citizens in addressing their social and economic needs

(Osborne, 2006: 378; 2010: 3). However, citizens are simply viewed as passive users of public services (Pestoff, 2012: 14).

General principles of the OPA (Hood, 1991; Osborne, 2006: 378, 382; 2010: 2-3, 8) are:

- dominance of rules and guidelines;
- bureaucracy as main pillar in policy-making and implementation processes;
- inter-personal separation between policy- and decision-making within public organisations;
- high professionalism in service delivery;
- inclination to incremental budgeting;
- hierarchy-based resource allocation mechanism and resulting accountability for spending public money.

Started in the late 1970s, the NPM took hold as part of a business management-based thinking in the field of public policy implementation and service delivery (Bevir, Rhodes, & Weller, 2003: 1). Detaching from the OPA school of thought, the NPM laments the constrictive influence of public policies on the management and supply of public goods and services, as well as critics their legitimacy within the public management domain (Meier, 1997; Peters, 2010: 39).

This paradigm implies a management style mainly stressing change and innovation (Osborne & Brown, 2005), notably through freedom of managers; flexible hiring and rewarding systems; the use of standards, performance measures and output targets – to which rewarding systems are anchored –; and limited-term contracting and public tendering (Hood, 1991: 4-5). As Osborne (2010: 3-4) emphasised, the NPM trend encourages public institutions to equip themselves with workable tools and techniques enhancing their organisational effectiveness and efficiency by:

- learning from good practices of the private sector;
- splitting up policy-making and implementation at organisational level, in a way to improve management independence from politics;
- focusing on entrepreneurial guidance and cost management of public services;
- underlining the significance of control and evaluation of organisational inputs and outputs, as well as the performance management and audit;
- increasing the adoption of market mechanisms for resource allocation and public service delivery.

More precisely, the NPM mainly stresses the efficiency concern of *intra*-organisational processes and management within disaggregated administrative systems, being characterised by articulated and separated policy-making and implementation activities (Osborne, 2010: 8). An horizontal market-like competition in resource allocation involves service units committed at the implementation stage (Peters, 2010: 39), where the use of short-term contracting out is particularly promoted (Bevir et al., 2003: 1). Hence, quasi-markets emerge, which are organised by the central state that behaves as a simple regulator, on the basis of a principal-agent relationship (Vickers & Yarrow, 1988). As a result, citizens are considered as active consumers, who have the possibility to choose public services providers according to their personal preferences (Pestoff, 2012: 14).

However, as argued by Osborne (2010: 4), the NPM is not a standard paradigm, as it may assume different configurations (Christensen & Laegreid, 2007; Hood, 1991). Furthermore, it is geographically differentiated (Borins, 2002) and only widespread in a few national public systems throughout the world, since the OPA regime broadly prevails (Kickert, 1997).

Although the application of managerial techniques stemming from the private context in public management has been recognised susceptible to enhance the quality and efficiency of public services (Bovaird & Löffler, 2009: 6), criticism was brought forward against the NPM view since its origins. For instance, Hood and Jackson (1991: 17) literally labelled the NPM paradigm as an actual ‘disaster’, denoting the latter as an extraordinary episode for a particular context that generate wide damages and economic losses, as well as unveil the social systems’ vulnerabilities and incapability to deal with them.

The NPM may fail in public policy implementation and service delivery due to a managerial focus limited to organisational boundaries and to the inapplicability of often-obsolete business management tools and techniques to which it relies on (Metcalf & Richards, 1991). In addition, if, on the one hand, the growing importance in policy-making process has been given to public managers, on the other hand, this has provoked discontent among politicians due to meagre political debate and values in the public sector (Bovaird, 2009: 19-20).

Thus, despite the good government practices based on compliance with administrative and economic rules as guiding stars of the OPA and NPM, respectively, the inability of both the archetypes to outline the actual complexity of designing, delivering and managing public services in the present age (Osborne, 2010: 5) has come up.

As a result, the NPG has taken hold and, even though it is not a new concept in the public management field and owns clear connections with the two previous regimes¹, it surges to a completely-new paradigm with a distinct identity (Osborne, 2010: 7), for the understanding of which a clarification of the term ‘governance’ is firstly needed.

The meaning of ‘governance’ is generally intended as a set of governing structures and processes characterising an organised social system, being it public, private or non-governmental (Bevir, 2012), thus including all the implicit and explicit rules and strategies aimed at steer it. Some Authors, such as Kickert (1993), Rhodes (1997) and Offe (2009: 557-558), provided for detailed studies on the meanings of ‘governance’, practical issues, actual application and underlined use, highlighting differences between specific subjects. Among the others, Kooiman claimed that governance represents “the pattern or structure that emerges in a social-political system as ‘common’ result or outcome of the interacting intervention efforts of all involved actors” (Kooiman, 1993: 258).

Narrowing the focus on what here deserves more attention, public governance is not the same as public management² and, even if to suggest an univocal definition is like “to open the Pandora’s box” (Bovaird & Löffler, 2009: 8), it focuses on both how distinct organisations interact each other and how citizens and stakeholders perceive what actors playing in the public domain put in place in achieving better outcomes (2009: 9). Therefore, from the NPM to the NPG, the concept of performance amplifies its content, by expanding its scope beyond the simple public institutions’ boundaries and including a growing attention on the outcomes of public action – i.e., shift from ‘quality of service’ to ‘quality of life’ –, within a broader and broader stakeholder inclusiveness and value-embedded cooperation based on mutual trust (Bovaird, 2009: 20).

The NPG relies on both hierarchical and market-like mechanisms of the OPA and NPM paradigms, but it mainly stresses cooperation mechanisms among heterogeneous interest poles to cope with so-called ‘wicked problems’, generally because of the proved inadequacy of

¹ Osborne distinguishes socio-political, public policy, administrative, contract and network governance components of public governance, which intersect the OPA and NPM regimes. For more details, cf. Osborne, S. P. 2010. The (New) Public Governance: a suitable case for treatment? In S. P. Osborne (Ed.), *The New Public Governance? Emerging Perspectives on the Theory and Practice of Public Governance*: 1-16. USA & Canada: Routledge, Taylor & Francis e-Library., pp. 6-7.

² In order to provide a useful example, let us consider the case of a high level of home invasion robbery in a city. The typical approach of NPM, aimed at reducing the phenomenon, could be, for instance, to improve the numbers of captures as well as to reduce the number of reports by citizens within a specific time span. Instead, the public governance approach would suggest the use of means fostering the willingness of citizens, for instance, in engaging in public information and/or in educative campaigns, as well as in enhancing the security systems of their houses.

exclusive intervention of public institutions (Löffler, 2003: 164-165). Forms of governance of administrative practices are hybridised and associational (Hill & Lynn, 2004: 173) and can make use of different degrees of joint effort of multiple actors – non-state organisations and individuals included – in policy and/or decision-making processes, according to specific “regimes of laws, rules, judicial decisions, and administrative practices that constrain, prescribe, and enable the provision of publicly supported goods and services” (Lynn, Heinrich, & Hill, 2001: 7). As a result, the NPG archetype assumes a plural and pluralist state perspective: as the state is plural, an *inter-organisational* perspective involves a variety of key-actors interacting with each other, in order to attain desired outcomes; while, as the state is pluralist, the governance of policy and decision-making activities is characterised by multiple processes (Osborne, 2006: 384; 2010: 9).

Differently from the OPA and NPM, which respectively rely on hierarchical and market-based mechanisms, networks represent the resource-allocation drivers in the NPG, which arise from the relationships between the involved actors in relation to a common problem and whose accountabilities upon the policy process depend on their negotiation power in changing the basic rules of the network’s functioning (Löffler, 2003: 165; Osborne, 2010: 9; Osborne & Kaposvari, 1997).

In short, as it is outlined by Moore and Hartley (2010), for its importance within the public sector, the new concept of ‘governance’ promotes an inclusive *inter-organisational* innovation in structures and processes for complex social systems, by focusing on:

- the couple *production process-product*, that is, on ‘which’ products are realised through ‘which’ processes;
- mechanisms of resource generation and allocation to deal with social problems;
- processes of decision-making and, as a consequence, definition of accountabilities;
- rules aimed at evaluating the overall network performance (2010: 53-55).

Nevertheless, some issues may derive from the adoption of such a public governance approach. After some critical reflections, Offe (2009: 557-558) concluded that the conceptualisation of governance implies grey zones, utilitarian and rhetorical usages of the word to emphasise positive attributes of its key-actors’ actions, as well as a critical contemplation of the role of persuasiveness in policy-making. Indeed, in specific governance arrangements, thorny concerns of power exercise may arise, such as contrasts in decision-making process due to power games among actors, conflicts in involving and coordinating stakeholders because of heterogenous goals and quarrels in allocating responsibilities for

policy implementation (Peters, 2010: 41-43). More in particular, within NPG-based systems, managerial freedom in contracting and allocating public resources configures as an informal tool for policy implementation, being able to bypass both political legitimacy and possible policy resistances of formal authorities at sub-national levels (Peters, 2010: 45-47). That may not be without consequences in practice and may give rise to dilemmas inside and between the involved institutions. Regarding the former, the attempt of the NPG to enhance the success of policy-making process through higher level of managerial discretion may produce the undesired reduction of control by politics (Peters, 2010: 48). This can be labelled as the ‘internal dilemma’ of the NPG, which is coherent with that part of the literature of the NPM – e.g. Meier (1997) – that considers democratic logics of public policy as actual stops to successful public management. In relation to the latter, instead, network performance may be threatened by the stand-alone focus of the strategic management of involved organisations, which should instead call for a policy coordination based on either trust, shared values and goals (Peters, 2010: 47-48)³ or influence stemming from hierarchical authority (Hartley & Allison, 2000; Moore & Hartley, 2010: 56). This can be called the ‘external dilemma’ of the NPG.

Provided that each of the three paradigms is characterised by different performance logics, tools, mechanisms and perspectives, if, on the one hand, the concept of ‘good government’ steered by the OPA and NPM may not result sufficient to deal with complex social and economic situations, on the other hand, even when policy- and decision-makers try to face ‘wicked problems’ through the NPG model-based policies, it may not be possible to provide ultimate solutions, but only satisfying and feasible ones, according to the requirements of specific circumstances. Indeed, the intrinsic meaning of ‘good governance’⁴ “is highly context-dependent [and, as such, ...] must be negotiated and agreed upon by the various stakeholders in a geographical area or in a policy network” (Bovaird & Löffler, 2009: 10).

Table 4.1 shows a summary of the three paradigms discussed above according the following main topics: performance logic; policy and implementation style; target; focus boundaries; governance tools; and governance mechanisms.

³ Trust, shared values and goals represent fundamental means of a softer way to govern public organisations that Peter calls ‘meta-governing’, which carries public managers’ efforts towards the same direction at the benefit of communities. Cf. Peters, B. G. 2010. Meta-Governance and Public Management. In S. P. Osborne (Ed.), *The New Public Governance? Emerging Perspectives on the Theory and Practice of Public Governance*: 36-51. USA & Canada: Routledge, Taylor & Francis e-Library.

⁴ Differentiated meanings of ‘good governance’ have been provided by international organisations and literature. For more details, cf. Box 15.2 in Löffler, E. 2009. Public governance in a network society. In T. Bovaird & E. Löffler (Eds.), *Public Management and Governance*, Second ed.: 215-232. USA and Canada: Routledge., p. 217.

Introducing the Dynamic Performance Management and Governance Approaches for Designing and Implementing Anti-Corruption Policies

Table 4.1 The main contents of the OPA, NPM and NPG archetypes.

Topic	Old Public Administration	New Public Management	New Public Governance
<i>Performance logic</i>	Legal compliance	Learning from business management-based practices	Governing critical processes in social interactions
<i>Policy and implementation style</i>	Bureaucracy-driven	Service-driven	Cooperation- and collaboration-driven
<i>Target</i>	Realising public policies designed by politics	Improving effectiveness and efficiency of intra-organisational processes and management	Dealing with ‘wicked’ problems and improving community outcomes (e.g., quality of life, trust in government)
<i>Focus boundaries</i>	Circumscribed to the accountable public office or department	Organisational	Relevant public, private and non-governmental stakeholders
<i>Governance tools</i>	Law, guidelines and internal regulation of public entities	Standard measures of performance; market-like competition among independent agencies in resource allocation and service delivery; change and innovation; term contracting and public tendering; flexible hiring and rewarding systems	Networks; formal and informal rules changeable in function of stakeholders’ negotiation power
<i>Governance mechanisms</i>	Hierarchy	Quasi-market	Hybridised and associational (i.e., market-like structures, hierarchies and cooperative networks)

4.2.2 Theoretical pros and cons of the OPA, NPM and NPG archetypes in dealing with corruption

The presence of the OPA wave is widespread throughout the world (Kickert, 1997). It has strongly influenced most of national governments in designing and implementing anti-corruption measures according to more or less centralised governance mechanisms and tools, being defined by authorities that provide pressing political lines (Ceschel et al., 2018: 132-133).

In bureaucracy-driven organisations, ethical problems are generally addressed by means of legal rules (Davis, 2009: 319) and, as a result, they are obliged to adopt regulatory systems that are naturally shaped on the basis of the past experience, so that policy- and decision-makers are theoretically provided with optimal solutions to cope with emergent problems, minimizing the informational requirement and discouraging behaviours diverging from the commonly accepted ones (Ceschel et al., 2018: 150).

Effective regulatory systems with clear set of rules and guidelines are essential to both guaranteeing good levels of governmental quality (Dimant & Tosato, 2017: 5) and increasing the likelihood to get caught and be punished for wrongdoings (Treisman, 2000: 402). Nevertheless, to rely on law exclusively also implies to adopt costly and non-tailored contrast measures, such as legal scrutiny, sanctions, conduct and deontological codes (Davis, 2009: 320-321). Moreover, as in the case of considerable discretionary power, significant requested

degrees of compliance with law and administrative protocols often create opportunities for corrupt offences as well (Minkova, 2018: 7). In particular, since bureaucracy-driven public organisations are subject to the adoption of strict and complicated administrative procedures (VCA Team, 2016: 10), there may be room not only for utilitarian interpretations and creative solutions to either overcome or bypass mandatory legal provisions, but also for unintentional negative policy outcomes, even where pressing rules and procedures could be able to hinder corruption in principle (Ades & Di Tella, 1997; Lambsdorff, 2006).

As argued by Jain (2001: 72), corrupt policy-makers may endeavour to impoverish the efficacy of the regulatory and judicial systems by means of alterations of resource allocation and selectively giving critical administrative roles. The natural inclination of highly-bureaucratized public organisations to incremental budgeting may also work as catalyst of such a mortification process of legal systems. Indeed, blind obedience to political goals may feed a myopic vision of managers who disregard important economic premises for policy implementation – e.g., efficiency and effectiveness of organisational processes –, thus undermining sustainable resource management and exacerbating corruption risk.

Based on what above, it follows that, when law is the main deterrent for inappropriate practices, anti-corruption strategies mainly rely on disincentives for public officials to engage in illicit behaviours on the basis of previous experiences, but culture, feelings for the institutions and other corruption-related subjective factors are neither forecastable *a priori* nor easily affectable by rules, codes of conduct or other similar tools. Especially in contexts characterised by poor governance, legal provisions can be easily transgressed with no consequence, such that pre-set and strict protocols to cope with the changeable nature of corruption may make any attempt to anticipate eventual wrongdoings groundless. Finally, the abstraction from a specific organisational context may make anti-corruption policies worthless or even favourite the occurrence of side-effects.

These argumentations may somehow support the findings of Husted and Instituto Tecnológico y de Estudios (1999), according to which hierarchy-based cultures are generally characterised by high level of corruption. In such arrangements, any appreciable corruption-tackling interventions by managers can mainly be realised through feedback mechanisms of control on rigid and financial targets, for which public offices are made accountable.

The recognised flaws in the predominant use of *ex-post*-acting measures in curbing corruption and the necessity to undertake effective pre-emptive solutions have pushed most

countries to integrate RMSs in public organisations⁵ (Davis, 2009: 321). With this respect, albeit public management scholars did not pay much attention to prevention tools in a first moment, the attempt of the NPM wave to foster *ex-ante*-acting measures has resulted in designing policies aimed at enhancing both management systems and controlling single public organisations (Ceschel et al., 2018: 124-126). Indeed, by emphasising organisational efficiency and effectiveness concerns, the NPM paradigm may naturally identify and deal with interferences provoked by wrongdoings within the broader goal of improving the holistic organisational monitoring. Also, as discussed in Chapter 3, the adherence of RM cycle with that of PM (Galli et al., 2018) may simplify the adoption of preventive measures.

However, some potential unintended effects of control systems may inhibit anti-corruption efforts because of managers' myopic orientation, manipulations in performance measurement and record management, which were generally singled out by Merchant (1990). Moreover, bearing in mind that "bureaucrats are subject to auditing, budgeting, and public reporting controls" (Giroux & Shields, 1993: 239), the application of RM tools has had particular difficulties in taking root in organisations with still-marked law-driven arrangements⁶. This because of a significant incompatibility degree with the dimension of uncertainty underlying the RMSs themselves (Galli et al., 2018: 150; Hinna, Rotundi, & Ceschel, 2017) and a containment of performance measurement and evaluation practices caused by rigid rules and guidelines, which would instead require adequate recurring reviews (Galli et al., 2018: 160). As a result, risk of opportunism, unlearning and bureaucratic intensification were identified as likely side-effects of the adoption of RMSs in realities with still-pronounced bureaucratic settings (Ceschel et al., 2018: 129).

Besides, the NPM was highly criticised for its failure in providing reforms aimed at improving accountability and transparency (Nabatchi, Sancino, & Sicilia, 2017; Pollitt, 1990; Terry, 1998). In particular, the exclusive focus on results instead of on processes – for which the means may justify the ends – and the preeminent importance to economically-driven values and business-like practices promoted by the wave of the NPM may left room for low conduct standards and, as a result, for a high potential of corruption in contracting out to the private sector (Davis, 2009: 311-313). Public contracting has, in fact, betrayed common expectations

⁵ Corruption risk management may be framed into the broader integrity management system (IMS). For more details, cf. Minkova, M. 2018. Guide To Corruption-Free Local Government. Practical ways to design and implement corruption prevention at local levels: United Nations Development Programme., p. 7.

⁶ This may be the case of Italy, with a historical high level of bureaucracy and formalism in the public domain. In this country, the law 6 November 2012, no. 190, published in the Italian Official Journal no. 265 of 13-11-2012, provided the adoption of risk management systems in public organisations within a decentralised model for the implementation of anti-corruption strategies.

due to closer relationships with private actors: if, on the one hand, the implicit assumption moved by the literature is that trusting relationships improve welfare, on the other hand, they may serve private interests better (Davis, 2009: 314; Seal & Vincent-Jones, 1997: 7).

Especially in presence of quasi-market mechanisms in resource allocation, the independency of service units underlying the NPM paradigm may cause adoption of bounded PMSs characterising myopic and watertight-compartment management styles, which disregard links and possible synergies between units that may hinder or even cause corruption over time. In addition, even when PMSs are characterised by broad span and depth⁷ including influences from and towards the reference exogenous environment, such a perspective may just consider actual and/or potential contributions of external key-actors to the organisational anti-corruption objectives and goals, but may not also take into account community stakeholders' relevant needs, aims, possible contributions and willingness to be active in fighting corruption.

Adequate importance to *ex-ante* actions against corruption with an inclusive 'out-of-boundaries' focus seems to have been given by scholars of *public governance* instead, who have been typically interested in the implementation of public policies, in the conferment of tasks to different governmental levels and in the related relationships (Ceschel et al., 2018: 124-125). Indeed, the plural and pluralist state approach of NPG may reveal to be particularly appropriate in dealing with a 'wicked problem' like corruption, since it moves forward by the assumption that some issues own hardly-identifiable internal dynamics, high levels of uncertainty, disparate processes interplaying each other over time and considerable difficulties in eliciting reaction and engagement of critical stakeholders. Therefore, networks consisting of public, private and third sector organisations lay the foundation for a more active – sometimes even pro-active – role of stakeholders (Pestoff, 2012: 14) in hindering corruption.

In the best of cases, namely when simple coordination and cooperation between the public sector and the private and/or third one become collaboration⁸, networks enable the stakeholders' engagement in new kinds of consensus-oriented policy-making and joint decision-making processes aimed at outlining common action lines against corruption, beyond the boundaries of typical organisational settings. In particular, multi-stakeholder processes (Hemmati, 2002: 2) may: ensure dialogue; foster common learning and joint understanding;

⁷ For more details on span and depth of performance, cf. Bouckaert, G. & Halligan, J. 2007. *Managing Performance: International comparisons* (First ed.). London: Routledge., pp. 11-34.

⁸ For a detailed distinction between the simple network, coordination, cooperation and collaboration settings, cf. Camarinha-Matos, L. M. & Afsarmanesh, H. 2006. Collaborative Networks: Value creation in a knowledge society. In K. Wang, G. Kovacs, M. Wozny, & M. Fang (Eds.), *International Federation for Information Processing (IFIP)*, vol. 207: 26-40. Boston, MA: Springer US.

allow the parties involved to bargain over the policy design phase negotiation and participated decision-making; and enable inclusive anti-corruption policy implementation and monitoring (Søreide & Truex, 2011: 4).

At this regard, Poocharoen (2014: 15) singled out four ways through which collaboration networking may support anti-corruption strategies: knowledge and know-how sharing at support of PCSs; *inter*-subjective learning; elicitation of new common shared values; overcoming political change resistance. The Author also suggested some guidelines for practitioners, such as an *ad hoc* focus of collaboration according to the form of corruption which it is supposed to deal with, and a long-term perspective fostering resource sharing, relationship and trust building (2014: 23).

Nevertheless, issues may arise because of the individuals' personality and intimate reasons to commit themselves in actions that are designed to build trust between the involved parts and face the problem purposefully. Accordingly, Ostrom (2000) distinguished three types of subject: 'rational egoist', who is personal short-term interest achievers; 'conditional co-operator', who co-operates in the case where the other group members devote at least the same effort; 'willing punisher', who pushes the others to stop free-riding and engage with the group to cope with the problem at hand.

It follows that key-actors engaged in anti-corruption initiatives may be diversely motivated and even promote contrasting goals, with the consequence that potential appreciable results may instead turn out to be totally far from those expected. Especially when such projects are not based on an aware and shared accountability, the presence of unwilling or 'incompatible' actors may also lead to hardly-manageable conditions and dangerous outcomes.

Interestingly, Søreide and Truex (2011: 14-15) identified some possible scenarios⁹ going from the situation where multi-stakeholders collaborations impact positively in terms of achievements of goals to that in which they paradoxically overturn the substantial purpose of initiatives themselves, by making the collaboration a tool to reach private advantages.

Finally, some issues being typically linked to projects featured by collaborative settings, may even favourite corruption. In particular, problems such as: belligerent anti-corruption upholders and their level integrity; power imbalances; difficulties in setting clear trajectories, responsibilities, time and measurable objectives; problems in finding consensus;

⁹ Precisely, they distinguished five configurations of 'multi-stakeholder group' (MSG) process' according to the reached outcomes: catalyst for change; forum for dialogue; status quo; a tool for opportunists; extortion. Cf. Søreide, T. & Truex, R. 2011. Collaboration against corruption? Multistakeholder groups in natural resource management: 29. Bergen, Norway: CMI - U4 Anti-Corruption Resource Centre.

Introducing the Dynamic Performance Management and Governance Approaches for Designing and Implementing Anti-Corruption Policies

unsupportive institutional designs; lack of leadership skills of public institutions (Abubakar, Prasojo, & Jannah, 2017: 95); may realistically work as intentional retarders or gatekeepers for internal sabotages.

Table 4.2 summarises the possible pros and cons of the three public management and governance waves in copying with corruption.

Table 4.2. Pros and cons of the three couples 'public service archetype-corruption'.

	Old Public Administration	New Public Management	New Public Governance
<i>Potential benefits hindering corruption</i>	Regulatory systems improve governmental quality and probability to get caught and be punished	Locus on service increases attention on organisational efficiency and effectiveness problems causable by corrupt behaviours	More active and pro-active role of stakeholders in bargaining over policy design and participating in decision-making through dialogue, knowledge and know-how sharing, and common learning of anti-corruption values
	Shaping rules and guidelines according to previous experience allow for learning from the past	Adherence of RMSs with the PM cycle may simplify the adoption of preventive measures	Recognition of hardly-identifiable internal dynamics and uncertainty of corruption
	Minimisation of informational requirement and discouragement of divergent behaviours	Improvement of management systems and control over public organisations	Overcoming political change resistance and foster long-term perspective based on resource sharing, relation- and trust-building processes among stakeholders involved in anti-corruption policies
<i>Potential disadvantages favouring corruption</i>	Costly and non-tailored contrast measures (e.g., legal scrutiny; general sanctions)	Difficulties of RMSs in taking root in organisations that still have pronounced levels of bureaucracy	Citizens' personality, goals and incentives may slow down or even compromise the involvement in individual and collective actions against corruption
	Opportunities for corrupt offences due to excessive levels of bureaucracy	Risk of opportunism, unlearning and bureaucratic intensification are likely side-effects of the adoption of RMSs in realities with still-pronounced law-driven settings	Divergent individuals' motivations may distort the original aims of joint anti-corruption efforts for private purposes
	Utilitarian interpretations of strict rules aimed at bypassing legal provisions	Independency of service units may cause myopic and watertight-compartment management styles and PMSs allowing for corruption	Possible presence of belligerency and integrity of anti-corruption upholders
	Likelihood of side-effects of anti-corruption policies due to abstraction from the context	Trade-offs in establishing trusting relationships with private actors	Difficulties in setting clear trajectories, responsibilities, implementation time and measurable objectives
	Risk of manipulation of resource allocation and selective appointment for critical public roles	Low conduct standards in contracting out due to the preminent emphasis on results instead of processes	Power imbalances, difficulties in finding consensus on policies and decisions
	Myopic vision of managers due to political nature of policy implementation and consequential exacerbation of corruption risk due to incremental budgeting	Emphasis on results may inhibit anti-corruption monitoring systems because of manipulation in performance measures and record management	Unsupportive institutional designs
	Unforecastable human beings' behaviour and ineffective deterrence of legal punishment against the dynamic and context-dependent nature of corruption	PMSs may ignore community stakeholders' needs, goals and actual willingness to fight against corruption	Lack of leadership skills in involved institutions

Resuming, no approach is the best in absolute in endeavouring to curb corruption, since different contexts react differently to one or another governance structure. Nonetheless, in facing context-specific causes and the unpredictability of corruption, the NPG view may ensure inclusiveness and sensitisation of strategic actors thanks to its versatility and adaptation ability in relation to heterogeneous and dynamic contexts. Of course, it does not mean to exclude tools and mechanisms typically characterising the OPA and NPM. It rather implies to promote hybrid or less demanding forms of public governance that, according to the necessities of the case, may just consider the simple communication and relevant information exchange or even the definition of complementary/compatible objectives better strategies than fixing common goals to pursue jointly by working together.

Hence, to foster political willingness, support change in management styles, enable key-actors to understand and face such an extremely complex, dynamic and uncertain phenomenon, as well as to design and implement appropriate anti-corruption policies at local level, a performance management approach able to contemporary:

- identify performance gaps and their possible multi-faceted connections with corruption;
 - provide a systemic view to frame this dynamic and complex phenomenon;
 - maintain a sufficient degree of specificity to ensure a context-fitting frame;
 - understand possible trajectories, responsibilities and measurable objectives;
 - guarantee versatility in modelling corrupt dynamics;
 - monitor output and outcome measures linked to corruption over time;
 - suggest *ad hoc* and feasible anti-corruption policies tested in a 'safe' environment;
 - communicate strategic information through simple visual language;
- is actually required.

4.3 The Dynamic Performance Management approach

4.3.1 The conceptual framework

The utmost attention on financial aspects of management has been recognised to bound the majority of P&C systems both in exploring the organisations' complexity, the underlined structures of linear and non-linear cause-and-effect relationships, the time delays that influence their performance, and in combining short- and long-term viewpoints of decision-making processes sustainably (Bianchi, 2016: 71).

The DPM approach is notably valuable to filling up this dearth.

Based on the cohesion between the traditional performance management tools and the SD methodology, the essential reason being of DPM is to elicit and improve a sustainable organisational development by systematising:

- *end-results*, which are outputs¹⁰ and outcomes¹¹ measures, influenceable by means of
- controllable critical performance levers called *performance drivers*, which are affectable each other and, in turn, activable through the deployment of
- *strategic resources*, representing the stocks of tangible or intangible assets to which an economic institution can draw on to put in place its organisational activities, as well as regenerable by end-results themselves (Bianchi, 2016: 71-83).

More in particular, end-results are performance measures that can be differentiated through a stream of different layers positioned in a causal chain – such that a performance measure depicts a more synthetic frame of the overall organisational performance as the layer where the end-result is included is placed at a lower level –, and represent sources of accumulation and deployment of strategic resources of a given system (Bianchi, 2016: 72-73).

Diversely, performance drivers – also called ‘intermediate results’ – represent organisational levers that trigger critical success processes and are susceptible to provide decision-makers with evident and more or less immediate impulses of change in organisational performance (Bianchi, 2016: 76, 83). As such, they can promptly prepare potential interventions being coherent and effective with respect to the prearranged goals, which can be done by identifying the correct relationships between managerial levers and end-results, as well as by making decision-makers accountable on what they can actually affect (2016: 117).

The DPM approach provides researchers, practitioners, policy- and decision-makers with three main possible perspectives of performance: *instrumental*, *objective* and *subjective*. The *instrumental view* – Figure 4.1 – helps strategic planners to get an aggregated picture of the causal mechanisms of the organisational performance under analysis (2016: 117).

¹⁰ These can be both indicators of volume and workload. See Ammons, D. N. 2001. *Municipal Benchmarks. Assessing Local Performance and Establishing Community Standards* (Second ed.). Thousand Oaks, California: SAGE Publications, Inc., pp. 12-14.

¹¹ These end-results: “synthetically measure the overall organizational performance [...] and] are flows that change the endowment of strategic resources that cannot be purchased in the market [...] such as those being] generated by *management routines*”. Bianchi, C. 2016. *Dynamic Performance Management*. Switzerland: Springer International Publishing., pp. 73-76.

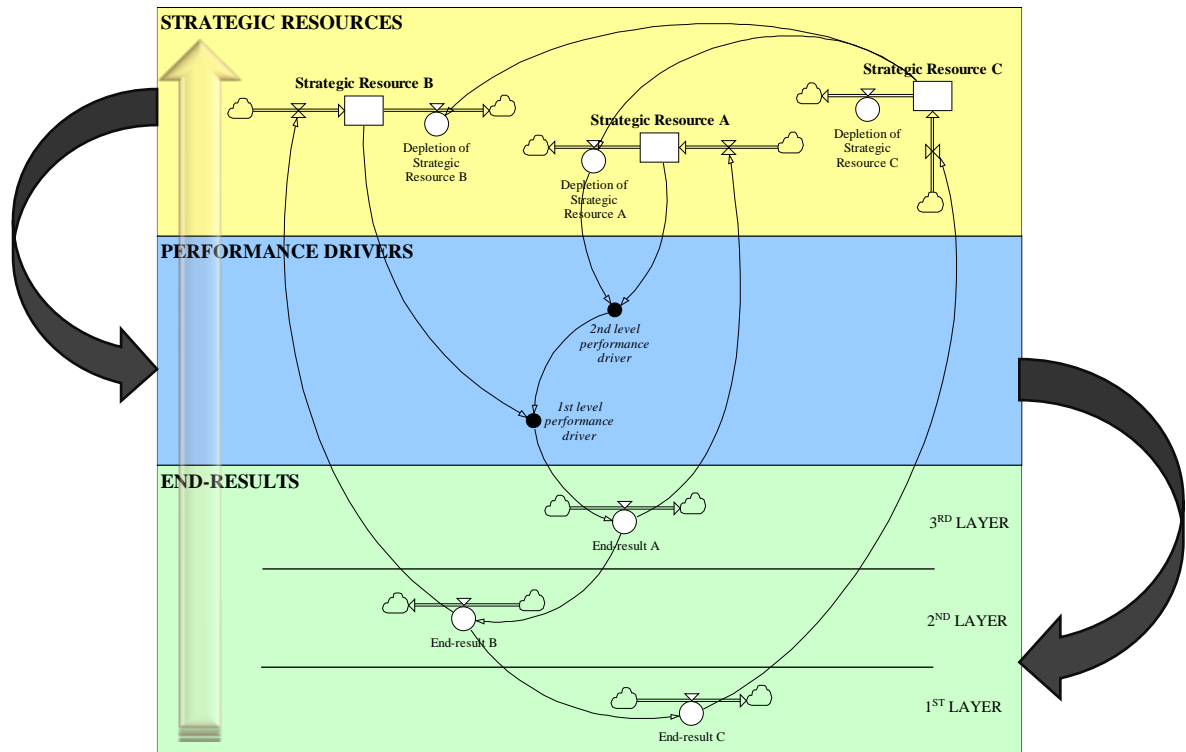


Figure 4.1. The instrumental perspective of performance. Source: Adapted from Bianchi (2016: 73).

The *objective view* – Figure 4.2 – details the focus of analysis by disaggregating performance into macro processes along the system under scrutiny, in order to explain how performance measures – i.e., performance drivers and end-results – are met. After the identification of the external users to whom the final products and/or services are delivered, the internal ‘clients’ and intermediate products, realised through management processes of the same kind, are identified (Bianchi, 2016: 118).



Figure 4.2. The objective perspective of performance with three hypothetical macro processes. Source: Graphic reworking of Bianchi (2016: 122).

The *subjective view* – Figure 4.3 – provides an overall picture of goals and objectives to achieve, which are translated into concrete actions – i.e., activities and processes – aimed at reaching desired levels of performance of single decision areas, measured through performance drivers and end-results (Bianchi, 2016: 135).



Figure 4.3. The subjective perspective of performance. Source: Graphic reworking of Bianchi (2016: 136).

4.3.2 Fundamentals of System Dynamics

The Oxford English Dictionary offers disparate definitions of ‘system’. Among the others: “a set of things working together as a mechanism or network”; “an organized scheme or method”; “the state of being well organized” (Oxford English Dictionary, 2012d: 740). In other terms, a system is constituted by individual and often heterogeneous parts which, together, form an unity (Anthony, 1965: 4).

The Oxford English Dictionary also defines ‘dynamics’ as “the branch of mechanics concerned with the motion of bodies under the action of forces”; “the forces which stimulate change within a process” (Oxford English Dictionary, 2012c: 221); and implicitly suggests some connected words, such as ‘change’.

Each part of a system is fundamental for its internal dynamics, although with various magnitude and fashions in influencing them. Systems are, therefore, higher the sums of their parts, which means that the significance of two or more elements of the system taken singularly is lower than their sum, and that the latter is lower than the system as a whole.

Based on what above, SD explores processes involving a set of interconnected elements, which produce change within a well-outlined system. Particularly, SD is a methodological approach allowing for model-building and simulating material and social systems, as well as experimenting with policies aimed at fostering system change (Madnick & Siegel, 2008: III).

A system results in synchronous or diachronic interconnections directly and indirectly involving all its elements, such that the change of an element included in the system at time t

is the result of the interactions with and between all or a part of the other elements of the same system at time $t-1$. These mutual relations give birth to *feedback loops*, which can be either positive or negative, depending on the values of their components and the direction towards which each of them works. Notably, in positive feedback loops, elements act in the same direction, by self-reinforcing the change over the considered time span; in negative feedback loops, instead, elements act by self-balancing the change over time (Sterman, 2000: 12-14).

At the aim to understand whether a feedback loop is of the one or the other type, it will be sufficient to multiply each polarity of the causal links within the loop and establish if the result is either '+' or '-'. Alternatively, it is possible to count how many connections have negative polarity and, if an odd number, the feedback will be negative, otherwise it will be positive. It is important to bear in mind that the polarity relates to the *kind of relationship* between one element and another – i.e., one-to-one –, so that if the sign of the connection between A and B is positive it means that, when A increases or decreases, B follows the same direction of A; contrarily, if the sign is negative it means that, when A increases or decreases, B follows the opposite direction of A, namely decreases or increases, respectively (Sterman, 2000: 139).

In SD, feedback structures are typically represented by *causal loop diagrams* (CLDs), being particularly useful to capture and communicate the dynamic hypotheses of problems at hand (Sterman, 2000: 137). Figure 4.4 is an example representing two simple CLDs, within which two variables are respectively involved in a self-reinforcing – 4.4a, clockwise – and a self-balancing – 4.4b, counter-clockwise – feedback loops.

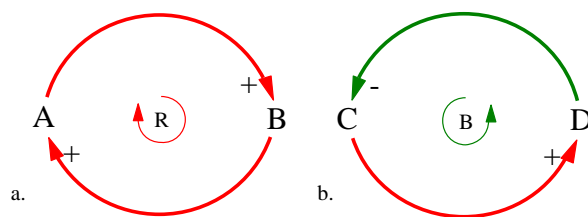


Figure 4.4. Examples of positive or reinforcing (a) and negative or balancing (b) feedback loops.

The change can occur even though each single element is abstracted from the system of which is part, but it cannot be completely explained if considered apart from the set of interactions which have generated it. In such a way, its change would lose important information disclosed by the internal dynamics and causalities of the system. This becomes even worthier of attention when the system contains a high number – potentially infinitive – of

positive and/or negative feedback loops, because of the presence of accumulations, time delays and non-linear relationships.

Understanding accumulation and time delay may not be intuitive. These two concepts are strictly related with each other. In particular, accumulation is a gradual temporal process which can result in increases and decreases in the entity of a systemic element over a considered time lapse. On the other hand, time delay is a characteristic for which an element of a system takes time to change, that is to say, it does not change immediately when its causes occur.

Accumulations occur in *stocks* or *level variables*, which depict the status of a system and produce the information supporting decision-making and action (Sterman, 2000: 192). Stock variables are changeable only through *inflows* and *outflows*, which represent the speed at which stocks respectively growth and decline over time, and consist of rate equations that represent decision functions influenced by information inputs (Forrester, 1961: 81-82).

Intuitively and logically, any accumulation-drainage process implies delays. Under a graphical point of view, flows are portrayed as arrows converging into or emerging from rectangles that represent stocks (Forrester, 1961: 81-82) – Figure 4.5. Alternatively, inflows and outflows may be merged into a single net-flow, thus capturing the ‘net-change’ of a stock.

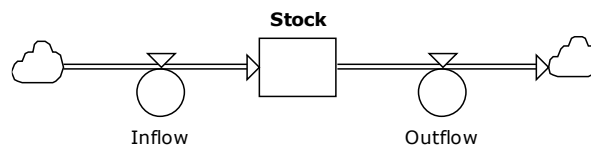


Figure 4.5. An example of an inflow accumulating into and an outflow draining a stock.

The clouds at the extremities of the flows in Figure 4.5 define the boundary of the considered system. Indeed, although pertinent, some elements may not be included in the model structure, because of several trade-offs in framing and representing the problem at hand. These modelling choices mainly derive from the level of complexity of the problem itself, the necessity to highlight some aspects of it in particular, the audience to which one turns, and many other factors.

All SD modellers recognise that there is always something outside the perimeter of analysis affecting the problem under scrutiny, which, however, do not deserve so much attention (Forrester, 1961: 81-82), either because it is outside the main focus of the study or because it does not generate a significant impact on the system. Hence, system boundaries are the result of a compromise between completeness and synthesis. For this reason, in order to

avoid losing focus of the fundamental research purpose and operationalise the modelling effort, SD model structures frame the *problem* instead of the system *per se*, even though the two may often match.

Mathematically speaking, stocks and flows – equations [1] and [2], respectively – represent integrals and derivatives in the following forms:

$$[1] \text{ Stock}(t1) = \int_{t0}^t [\text{Inflow}(s) - \text{Outflow}(s)]ds + \text{Stock}(t0)$$

$$[2] \frac{d(\text{Stock})}{dt} = \text{Inflow}(t) - \text{Outflow}(t)$$

(Sterman, 2000: 194).

Information coming from stocks and decision functions embedded in flow rates influence *auxiliary variables*, generally represented by circles – Figure 4.6a. Contrarily, elements of the system which do not vary according to the evolution of its internal dynamics, but that are worthy to be considered as a part of the model, are *constant variables* or *parameters* (Forrester, 1961: 83), being normally represented by diamonds – Figure 4.6b. Notably, constant variables are considered as exogenous compared to the model, since they affect the system, but are not affected by it.

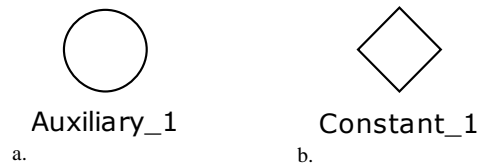


Figure 4.6. Representation of auxiliary (a) and exogenous (b) variables in a SFD model.

Interestingly, a time delay can be modelled by means of a thin arrow¹² linking two auxiliary variables with double parallel lines in the middle and a stock inside the effect variable, which indicates a process of accumulation or smoothing of the effect produced by the cause variable over time – Figure 4.7.

¹² Thin arrows represent causal links between variables, while flows are exclusively represented by 2D arrows that connect to stocks.

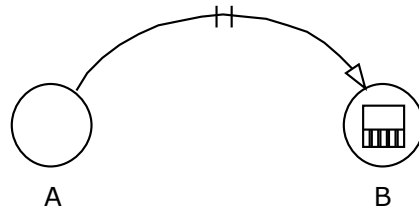


Figure 4.7. An example of a delayed effect of A on B.

Mathematically speaking, a linear relationship between two variables is generally depicted as a straight line (Stewart, 2012: 23). Otherwise, the relationship is considered non-linear. The latter is a polynomial whose degree is higher than 1 and, as a result, it is graphically represented by a non-straight line – e.g., exponential, s-shaped or parabolic. In SD, its function can be either generalised and analytically represented in formula or specified by assigning specific input and output values to the variable causing the change. In the second case, any SD software allows modellers to employ so-called *graphical* or *table* or *lookup function* – Figure 4.8 –, by relying on both qualitative and quantitative information (Sterman, 2000: Chpt 14) to capture logical relationships that are often estimated and revised along the overall model calibration (Bianchi, 2009: 141).

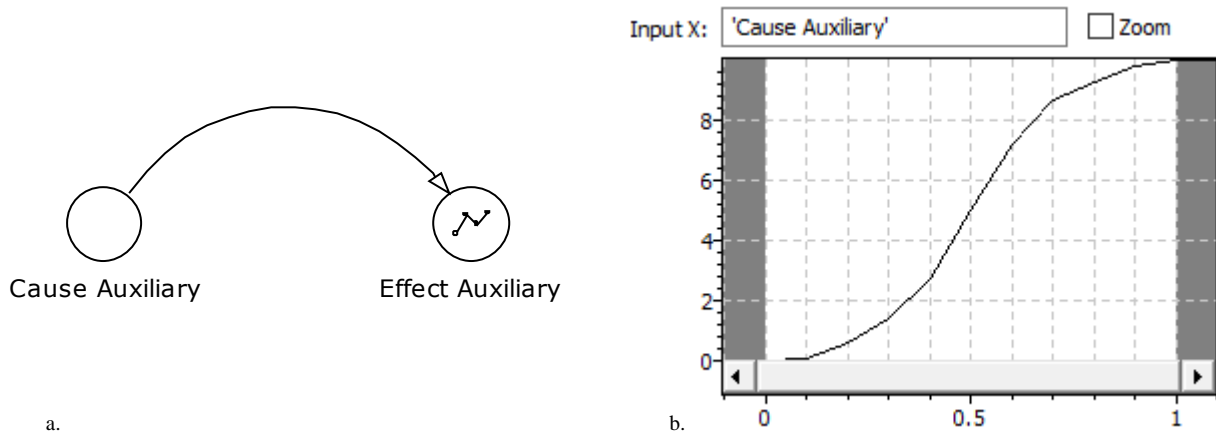


Figure 4.8. Representation of a non-linear relationship (a) with an example of s-shaped graphical function (b).

In the light of what above, the resulting causal-relationships between stock, flow, auxiliary and constant variables give rise to the so-called *stock-and-flow diagram* (SFD), which reproduces the dynamic hypotheses of a problem just like a CLD, but more in detail and allowing for quantitative simulations.

Finally, it is crucial to bear in mind that:

- polarities of interconnections between variables describe what would happen whether a change occurred, but not the actual behaviour of the variables (Sterman, 2000: 139);
- a system behaviour¹³ arises from its model structure constituted by feedback loops (2000: 107);
- correlation is not causation, so that if conditions change or new policies are implemented, previously corroborated correlations may not be reliable any more (2000: 141).

4.4 Supporting the design and implementation of anti-corruption strategies through Dynamic Performance Management and Governance

Specific political and administrative settings characterising the OPA, NPM and NPG archetypes can be simultaneously present – with different magnitudes over time – in the same particular organisation (Bovaird, 2009: 20), provided that they are not mutually exclusive and that a sharp demarcation of their boundaries is often academic only.

Based on the theoretically pros and cons that it was attempted to single out in the subsection 4.2.2, the DPM approach, described in the previous section, may reveal to be particularly suitable to:

- improve the understanding of corruption opportunities, deterrents and impacts on system performance;
- support PMSs – P&C systems in particular –, by shedding light on possible and relevant cause-and-effect relationships characterising the governance mechanisms of specific political-administrative configurations, which may either enable or constrain corruption risks;
- trigger and foster ethical learning-oriented management methods (Bianchi, 2016: 63) on the basis of possible trade-offs between change and resistance (Schweiger, Stouten, & Bleijenbergh, 2018).

In applying the DPM approach, two different perspectives have been suggested by the prevalent literature: *inside-out* and *outside-in* (Bianchi et al., 2019: 2).

In the former, the focus of performance management is typically organisational and the boundaries of policy-making may include possible outcomes on the external environment that, directly or indirectly, affect the institutional performance itself. It means that any other element beyond such boundaries is, at the most, considered passively at the extent to which it concurs

¹³ In SD, there exist six principal modes of behaviour: exponential growth; goal seeking; s-shaped growth; oscillation; growth with overshoot; overshoot and collapse. See Sterman, J. 2000. *Business dynamics. Systems thinking and modeling for a complex world*. Boston: Irwin/McGraw-Hill., pp. 108-127.

to influence the organisation's performance, according to what is considered strategically relevant for attaining specific institutional goals and outcomes. On the contrary, in the latter, the focus of interest is enlarged through a broader scope of analysis that goes beyond the stand-alone organisational domain, based on the recognition that the performance of a single agency or entity is largely influenced by relevant stakeholders' capability to ensure adequate reactions to public policy implementation aimed at coping with community problems¹⁴.

Compared to the corruption problem, the *inside-out* perspective of performance management of the DPM approach helps to overcome feelings of illusory control over performance, costly bureaucracy, procedural mechanicalness and decision-making inertia, which stem from the OPA and NPM archetypes and may lay the foundations for pathologies referable to the *principal-agent theory*. Among the others, it is possible to mention¹⁵:

- fossilisation of poor governance mechanisms that enable opportunism, unlearning and bureaucratic intensification, inhibit anti-corruption monitoring systems and allow for manipulation of management and measurement processes, which find fertile ground in the emphasis on results rather than processes;
- prevalent significance given to efficiency, because of the adoption of business-like tools in public processes, that may fail in ensuring organisational accountability and transparency;
- violation or utilitarian interpretations of ambiguous legal provisions;
- unsustainable resource allocation mechanisms due to inclination to incremental budgeting and/or risky proximity of public organisations with private actors enabled by quasi-market logics;
- watertight-compartment and myopic management styles provoked by political origins of policy implementation, inter-personal distance between politics and administration and/or independency of service units, reducing organisational capability to detect corrupt practices.

Following a *bottom-up logic*, DPM allows one to identify the main outcomes and outputs – i.e., end-results – related to specific forms of wrongdoing concerning the problem under study, such as to discover *which* performance drivers that affect them are activated by

¹⁴ Generally, the scope of analysis of the outside-in perspective is circumscribed to a local or regional area, but, theoretically, a national, supranational or even the overall worldwide area may be considered. Indeed, the extension of the analytical focus may vary according to the range of the particular 'wicked' problem faced, which should constitute the primary element to assume in setting up the system boundaries.

¹⁵ This list that follows stems from a declension of some crucial peculiarities of OPA and NPM that may allow for corrupt behaviours – see Table 4.2.

the deployment/accumulation mechanisms of strategic resources, as well as *why*, *when*, *who*, and *how* they spring into action. In particular:

- firstly, causal mechanisms – *how* – explain the reasons *why* performance drivers – *which* – are enabled and *who* controls the relevant strategic resources, in a way to reduce the risk of ambiguities in interpreting their meaning and identifying internal responsibilities;
- secondly, representation of accumulations and time delays – *when* – characterising the system under scrutiny improves the possibility to anticipate and, as a consequence, prevent possible wrongdoings where they might occur;
- thirdly, systemic focus enlarges the spectrum of attention paid by key-actors in monitoring and intervening through policy-levers opportunely, also contemporary maintaining the desired level of system detail.

The need of reliable methods enabling successful connections between design and implementation in policy networks (Keast, Mandell, Brown, & Woolcock, 2004) pushed the adaptative evolution from the *inside-out* to the *outside-in* perspective of DPM. To provide practitioners and academics with a framework being effective in facilitating dialogue between conflictual mindsets, eliciting reflection, singling out critical performance measures, activating learning and information sharing processes, encouraging sustainable stakeholder inclusion and bargaining over common resources, may improve network leaders' endeavours to cope with 'wicked problems' and ameliorate affluence of local areas through governance styles made of various degrees of consensus orientation, stakeholder involvement, action power and responsibilities.

The DPG approach aims to support the enlargement and enrichment of the typical locus of organisational policy design, which – at the most – considers the external outcomes of stand-alone institutional actions, in terms of planning of acquisition and deployment of resources shared among multiple key-actors (Bianchi, 2021). The latter are affected by policies themselves, and their inescapable, cooperative and coordinated commitment contributes to attain the common purpose to curb 'wicked issues' at community level.

In other terms, the *outside-in* perspective underlying the DPG approach expands the boundaries of the one-sided institutional scope adopted by the DPM view at the strategic planning phase, hence enriching the P&C processes of the institutions involved in collaboration-based arrangements. It means that the DPG perspective allows for framing shared strategic resources, the deployment of which can activate relevant performance drivers, with the goal to reach desired end-results linked to common issues, which actually evolving over

time according to the influence of the joint action of different key-actors belonging to the same reference system (Bianchi, 2021: 335).

It is important to stress that it is not possible to talk about ‘control’ in the DPG approach, but only about ‘planning’: the DPM approach benefits from the DPG one at the extent to which the latter enhances the quality of the institutional planning phase, by retrieving and synthesising environmental information, as well as fostering and embedding inter-institutional synergies to reach common objectives.

In short, the DPG view:

- sets a specific focus on common strategic resources;
- allows policy- and decision-makers of a single institution to make a strong synthesis of information shared at inter-institutional level;
- produces an improving impact of the P&C systems of the single involved institutions;
- boosts enhancement of welfare at local or regional level.

In relation to a ‘wicked’ issue, decision-making process conducted together with relevant local stakeholders becomes surpassingly necessary to foster learning and successfully implement policies that require broad consensus among participants and their concrete action. As it was highlighted in Chapter 2, several Authors (Booth & Cammack, 2013; Mungiu-Pippidi et al., 2011; Persson et al., 2013; Rothstein, 2011a) stressed how the principal-agent relationship in corruption theories relies on the assumption that the principal *always wishes* to act in a way that the agent realigns his/her behaviour to the original agreement, based on which the principal’s power is entrusted to the agent.

Nevertheless, to take for granted that the principal commits to take purposeful actions to fight corruption depicts a very optimistic situation. In fact, this situation is often so far from the reality, seeing as the principal *may not have* any desire or means to obstruct or contrast possible corrupt behaviours in public domain. In some cases, the principal may even accept corrupt behaviours because of the lack of will and/or ability to combat them.

Thanks to the assumption that a good-quality collaboration represents a reliable indicator of the principal’s willingness to rise up against corruption, the *collective action theory* has taken hold. On this topic, the theoretical contents have already been mentioned in Chapter 2. However, the last chapter proposes a more detailed dissertation of the state of the art.

4.5 Concluding remarks

In conclusion, the DPM and DPG approaches may reveal to be effective to support formulation, probe the feasibility and impacts over time of anti-corruption policies by framing strategic

resources, performance drivers and end-results within and beyond organisational boundaries, thus providing a portrayal of connections being often hardly identifiable, enhancing the understanding of performance processes and dealing with resistance to cultural change.

This implies the necessity to gain appropriate knowledge about context-dependent political and administrative settings and strategic levers. With this goal, respectively compared to an institution or a local – or broader – area, DPM and DPG can together:

- provide a better understanding of corrupt behaviours, by focusing on relevant outputs and outcomes and capturing causal connections between the endowment of tangible and intangible resources, measurable financial-economic indicators and objectively-observable cultural set of measures, as well as between the latter and end-results;
- foster communication, ethics, accountability, transparency and diffuse participation of key-actors in decision-making processes.

The following chapters attempt to corroborate these theoretical statements through a multi-methodological analysis of a case-study of an Italian municipality, which experienced mafia-like infiltrations twice over the last 30 years.

CHAPTER 5

UNDERSTANDING THE IMPACTS OF CORRUPTION ON THE PERFORMANCE OF A LOCAL AUTHORITY: A QUALITATIVE APPROACH¹

5.1 Introduction

As it was widely argued in the chapters 2 and 3, to recognise corruption as the abuse of entrusted power for private gain (Transparency International, 2020a), adopt eligible measurement strategies and make use of suitable tools according to the most important guidelines in the field does not automatically exclude mistakes in investigating such a phenomenon and ambiguity in the related results. Chapter 4 also showed how specific public management paradigms may generate pros and cons in getting even only a chance to curb corruption within public organisations successfully.

To outline premises, features and outcomes of corrupt practices always needs a clear frame of the socio-cultural context where it occurs (Davis, 2009; Lambsdorff & Schulze, 2015) and, because of its cultural attitude (Arloff, 2012), Italy deserves a particular attention.

The Italian national government has always been at the forefront of the battle against this economic and social evil (Sargiacomo et al., 2015). The increasing dispersion of public resources in local realities, fomenting a general distrust in public officials, has justified hyper-regulation, procedural rigidities and formalism aimed at ensuring efficiency and legality of public action (Fantini & Simonetti, 2017: 27-28). Furthermore, quite recent law updates amplified the scope of the concept of corruption by including all those circumstances of maladministration implying a significant, actual or potential, deviation – i.e., conduct or decision – by the public interest in favour of the private one² (Barbiero & Ferrari, 2015).

Nonetheless, public corruption remains rooted in the territory due to the presence of organised crime in quality of widespread tool of illicit businesses and clientelist practices.

¹ This chapter is based on the conference paper presented during the National SIDREA Virtual Conference 2020, held on the 20th and the 27th of November, Gnoffo, S. 2021b. *Relazioni fra malagestione e dissesto degli enti locali: un caso-studio basato su interviste convergenti non-strutturate [Relationships between maladministration and financial distress of local governments: A case-study based on non-structured convergent interviews]*. Paper presented at the National SIDREA Virtual Conference 2020, Bari, Italy. © The Author.

² Cf. the law 6 November 2012, no. 190, published in the Italian Official Journal no. 265 of 13-11-2012.

Since 1991, more than 580 decrees of dissolution of municipal councils for mafia infiltrations³ have been registered throughout the country, of which little more than 80 refer to Sicilian municipalities (Avviso Pubblico, 2021).

At the same time, the financial crisis is harshly affecting the Italian local governments with growing frequency. In the last thirty-two years, 685 municipalities out of 8,389 (Ca' Foscari University of Venice, 2021) declared “serious and incontrovertible conditions of imbalance”⁴. In particular, 84% of the total is represented by municipalities with no more than 15,000 inhabitants and almost 12% by entities located within the Sicilian region.

The declaration of bankruptcy of Italian local authorities finds its reason being in the historical increase of public spending with no effective restriction (Gori & Fissi, 2012: 44), and aims to both make the management of collective resources more efficient and modernise the Italian bureaucratic-administrative apparatus.

The prevailing literature identifies several and, often, interconnected causes of financial distress of local authorities, which are linked to managerial and organisational (Coe, 2008; Honadle, 2003), objective and subjective (Levine, 1978), infrastructural (Jones & Walker, 2007; Winarna, Widagdo, & Setiawan, 2017) and macroeconomic (Trussel & Patrick, 2012) factors, as well as to formal budgetary or management results (Gori & Fissi, 2012) of both internal and external origin compared to organisations (Civitillo, 2012: 12; 2019: 95-99; Italian Ministry of the Interior, 2019: 4-5; Prosperi, 2006: 25).

However, not only the figures showed above confirm the financial plight of the small municipalities of the South of Italy (De Toni, 2017), but also note the possible existence of relationships between offences in public office for private advantage and crisis of local governments. With this respect, the impact of illicit managerial and administrative practices as possible causes of local authority bankruptcy has not received particular attention yet. This is probably due to the persistence of major practical and conceptual difficulties of this type of investigation, such as the capability to determine to what extent inefficiencies have no reason for being justified by personal interests (Bandiera et al., 2009), such as the seriousness of an excessive regulatory burden (Kelman, 1990, 2005).

³ The institution of dissolution of municipal authorities for mafia infiltration was introduced by the decree-law of 31-05-1991, no. 164, bearing “Urgent measures for the dissolution of municipal and provincial councils and the bodies of other local authorities, resulting from mafia-type infiltration and conditioning”, and published in the Italian Official Journal no. 126 of 31-05-1991. On the conditions and procedure of the dissolution of the municipal councils see the Articles nos. 143-146 of the *Consolidated Text of Laws on the Organisation of Local Authorities* (TUEL), legislative decree 18 August 2000, no. 267, published in the Italian Official Journal no. 227 of 28-09-2000.

⁴ Art. 242, paragraph 1, of the legislative decree no. 267/2000, published in the Italian Official Journal no. 227 of 28-09-2000.

Therefore, this chapter aims to answer the following research sub-question: *To what extent and how do mismanagement practices for private purposes affect the declaration of bankruptcy of a local authority?*

With this end, a literature overview of the main causes of financial distress of local authorities introduces the chapter. Afterwards, based on publicly-available past judgments, a description of some cases of mismanagement that involved some individuals of a Sicilian local Body, being currently in a situation of financial crisis, is followed by a content analysis of some interviews conducted by the author of this thesis with five municipal Officials in the summer of 2019. In particular, a process of thematic analysis (Boyatzis, 1998), developed by means of open and axial coding techniques (Corbin & Strauss, 2008), allowed for identifying clear concepts and meanings that resulted useful to answer the remaining research questions of this research project.

5.2 Financial distress of local governments and underlying causes: A literature overview

Financial distress represents a condition of either structural suffering or financial destabilisation of local authorities⁵ and depicts the actual status of a local entity to deliver public services according to planned standards of acceptable quality (Jones & Walker, 2007: 399), since it implies a condition of capital unavailability for infrastructural interventions (Winarna et al., 2017: 35).

Albeit, under particular conditions, such a phenomenon may even be qualified as ‘physiological’⁶ (Capalbo, 2010: 85), it presents recurring elements that are attributable to difficulties in maintaining budget balances and ensuring the delivery of essential services, as well as to high tax burden (Bradbury, 1982).

Compared to studies of financial instability at business level, the analysis of financial distress of local authorities is still not widespread in the relevant literature (Winarna et al., 2017: 34; Ziolo, Porada-Rochon, & Szaruga, 2016: 315). The extant research mostly shows heterogeneity in findings and concurrent factors determining the state of crisis of a local authority. For instance, Jones and Walker (2007), taking the reduction of investments in local infrastructures in an Australian municipal territory as a proxy-variable for levels of financial distress, concluded that the crisis of the institution is positively *correlated* with both the

⁵ The TUEL makes the distinction between “structurally distressed” and “financially destabilised” local governments, emphasising the different seriousness of the related financial condition.

⁶ Cf. the Deliberation no.16/2010/FRG of the Section for the regional and local Authorities of the Italian Court of Auditors.

composition of taxes and the size of the local population. Trussel and Patrick (2012) instead explained how fiscal instability can result from external factors compared to some U.S. local authorities, such as rising unemployment and poverty rates, insufficient state infrastructure, and a significant reliance on revenues from supra-communal governing bodies.

Italian scholars of business and public administration dealt with the origins of crises widely – for instance, cf. Tedeschi Toschi (1993). Notably, in the Italian academic tradition of public management, two prevailing theses on the causes of crisis can be highlighted: the first one attributes the pathological status to the executive inability of institutions, while the second one to objective factors that are uncontrollable and external to them (Prosperi, 2006: 25).

The causes that can lead to the financial imbalance of local governments are actually multiple, interconnected (Gori & Fissi, 2012: 86) and have different nature, scope and origin. As such, even though it may be difficult to identify them (Civitillo, 2019: 95; Prospero, 2003: 46), the most recent Italian literature provides for useful classifications of the causes of local authority financial distress.

The distinction between *internal* and *external* causes compared to public institutions was already singled out by Levine (1978: 318), who characterised both of them based on either economic-technical or political origins. Without postulating generalisations, external causes are typically linked to transient economic shocks, while the internal ones to long-run structural budget unbalances stemming from political set of problems (Ziolo et al., 2016: 326). Interestingly, among the latter, the so-called ‘spoils system’⁷ is a factor that relates to relationships between politics and management that may play a crucial role in terms of financial instability of public organisations. Notably, from a first point of view, such a tool can be considered a mechanism of good governance of public bodies (Ferri & Zan, 2019), but it may enable interferences of political power on what is the prerogative of managers, thus hindering the ability of the institution to prevent and cope with financial distress in conjunction with other criticalities that amplify its scope, such as a weak internal control system and mismanaged accounting (Guarini, De Toni, & Vallone, 2015).

In the Italian context, without pretensions of exhaustiveness, it is possible to list the following internal causal factors: mismanagement of cash flows; low tax collection capability; excessive debt exposure; endemic black liabilities; incorrect management of tax credits;

⁷ The mechanism of ‘spoils system’, introduced with the law 25 March 1993, no. 81, published in the Italian Official Journal no. 72 of 27-03-1993; and regulated by the law 15 July 2002, no. 145, published in the Italian Official Journal no. 172 of 24-07-2002, allows Italian mayors to directly appoint individuals, also belonging to the existing municipal staff, for the coverage of executive positions.

uncontrolled increase in spending; budgetary structural rigidity; inadequate performance audit system; criticalities in accounting management; ambitious management objectives; adoption of myopic management policies; underqualified staff; existence of organisational inefficiencies; inability to identify and/or remove the causes of economic and financial instability (Civitillo, 2012: 12; 2019: 95-96; Italian Ministry of the Interior, 2019: 4).

The exogenous causes include: dependence on state transfers and their uncertainty and/or under-sizing in relation to an institution's real needs; episodes of an extraordinary or unpredictable nature of non-recent origin (Civitillo, 2019: 96; Italian Ministry of the Interior, 2019: 4-5; Tenuta, 2015); the deficit of the 'strengthening' regulatory framework of the tools for local tax collection; the absence of adequate strategic planning of public resources (Italian Ministry of the Interior, 2019: 4-5); significant tax avoidance⁸.

Another classification was proposed by Gori and Fissi (2012), who discerned 'primary causes', having a directional and administrative nature, and 'formal causes', constituting the accounting evidence of the primary ones and emerging both from the reports of auditing bodies and the declarations of bankruptcy issued by city councils. The Authors identified recurring and often coexisting formal causes relating to the balance between incomes and expenditures, such as: existence of black debts; use of cash advances; budgeting of uncollectable or non-extant tax credits⁹; overestimation of incomes and/or underestimation of expenditures (2012: 82-83). On this topic, Cohen, Costanzo, and Manes-Rossi (2017), in ascertaining both the predictive capability of failure and the goodness of certain budgetary financial indexes of some Italian municipalities, found that, compared to local incomes, the percentage of expenditure on staff, turnover rate of short-term liabilities, and use of subsidies, are peculiar factors of the institutions in conditions of financial distress.

However, the underlying motivations of the involitional processes triggered by financial crises must be sought beyond the imbalances emerging from budgets, since these crises often rest on the inability of key-players to take full responsibility towards the ruled institution consciously, in their quarrels and in lack of a proper organisational culture (Sorci, 2014: 463). Besides, some budgetary manoeuvres aim, for the most part, to conceal the actual state of financial distress of an institution (Gori & Fissi, 2012: 83; Italian Ministry of the

⁸ On the topic, cf. Chiarini, B., Marzano, E., & Schneider, F. 2013. Tax rates and tax evasion: an empirical analysis of the long-run aspects in Italy. *European Journal of Law and Economics*, 35(2): 273-293, Ponzano, F. & Ottone, S. 2019. Prosociality and fiscal honesty: Tax evasion in Italy, United Kingdom, and Sweden: 289-318: Elsevier.

⁹ The reform of the harmonised public accounting – introduced with the legislative decree 23 June 2011, no. 118, published in the Italian Official Journal no. 172 of 26-07-2011, and came into force in 2016 – provided for an extraordinary review of tax credits in the 2015 administrative year and, in order to avoid this phenomenon, the forecast in the financial statement of a fund for credits of dubious collectability.

Interior, 2019: 4) and, in general, the quality levels of information present in publicly available budgets may constitute a limit for the analysis of crisis itself (Civitillo, 2019: 92, 94; Cohen, Doumpos, Neofytou, & Zopounidis, 2012: 279; Tenuta, 2015: 53; Winarna et al., 2017: 45-46).

The primary causes of failure stem from poor financial and accounting management, commonly attributable to the work of different administrations over time, aimed to formally balance budgets and/or avoid the Stability and Growth Pact (SGP)¹⁰ that can lead to time mismatches between collection and expenditure, as well as to formation and use of fictitious administrative surpluses due to non-existent tax credits¹¹ (Giuncato, 1995; Gori & Fissi, 2012: 84).

Some primary causes are also exogenous, often linked to national cutback management policies (Levine, 1978; Pandey, 2010; Raudla, Savi, & Randma-Liiv, 2013) that reduce incomes, spending capacity of local institutions (Mussari, 2011: 56-63) and, therefore, restrict budgetary autonomy in policy-making. This level of uncertainty has led to the economic and financial instability of municipal governments, which has facilitated the adoption of organisational models that are objectively inadequate for the future functioning of institutions, as well as uncreative and unproductive organisational climate (Levine, 1978). These elements favour the so-called 'passive waste', caused by the carelessness and superficiality of public employees, which differs from the so-called 'active waste', in which there is the individual's will to use the public power to gain a personal benefit (Bandiera et al., 2009: 1278).

Practices of mismanagement of public resources resulting in corruption-related waste are opposed to the concept of good governance (Gardiner, 1978), as they increase administrative expenditures, damage public interest and cause public dissatisfaction with poor public services (de Araujo Santos et al., 2018: 461). Indeed, redefining spending priorities as a result of mismanagement practices for private purposes causes a huge dispersal of public resources, compromising the satisfaction of collective needs and foreclosing access to public goods and services to those who cannot obtain them privately (Robinson, 2006: XIV).

Clearly, these outcomes result more serious than simply reducing the standard quality of essential services provided locally, since they imply a distortion of the ontological reason being of public action itself. Accordingly, as Liu et al. (2017) highlighted, countries with higher

¹⁰ The SGP is an agreement between the EU Member States to promote control over national public budgetary policies and thus favour monetary integration under the Maastricht Treaty of 1992. For more details, see https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/stability-and-growth-pact_en; accessed: February 26, 2021.

¹¹ See footnote 9 of this chapter.

levels of corruption also have higher and more persistent levels of state and local debt, making decentralised governments unable to provide essential public services and plan the socio-economic development of their territory.

Based on what above, investigating specific cases of abuse of delegated power for private interests in detail turns out to be necessary to better understand origins and mechanisms of financial bankruptcy of public bodies, to which little attention has been given by scholars. This research effort would favour better recovery choices of institutions from a point of view not limited to the accounting rebalancing, but also focused on virtuous organisational paradigms that promote learning and a system vision of managerial action.

5.3 The case of Cerda Municipality

Populated by just over 5,000 inhabitants (ISTAT, 2020a), the Municipality of Cerda is located in a hilly area of the province of Palermo, in Sicily. Like many municipalities in southern Italy, Cerda is currently subject to the rebalancing procedures provided by the TUEL¹², because of the certified condition of financial imbalance that has weakened its ability to guarantee basic public services to local citizens, as well as to strategically plan its action.

Following the critical emerging financial situation, in 2012, the Extraordinary Commissioner¹³ noted the urgent need to define the credits and debts of the Municipality and adequately intervene in the local public finance with the goal to restore a sustainable balance. The exclusion of any chance of restoration of normal conditions of sound management led the regional control Section for the Sicilian Region of the Italian Court of auditors¹⁴ to recognise the actual situation of bankruptcy in 2016, which was formally decided by the City Council the following year¹⁵.

According to what emerges from the report of the Sole Auditor of Cerda Municipality (2017, February: 7-8), the size of the financial imbalance prevented the local Authority from paying short-term liabilities and raised new costs related to legal disputes. In particular, the unsustainable debt plight was initially quantified equal to € 1,813,174.23 and was mainly attributable to urban waste collection services, water service supplies, unpaid professional

¹² Cf. footnote no. 4 of this chapter.

¹³ Appointed by the decree of the President of the Sicilian Region of 30 November 2012, published in the G.U.R.S. no. 1 of 04-01-2013, replacing the resigning Mayor and remaining in charge until the beginning of 2013.

¹⁴ Cf. the deliberation no. 165/2016/PRSP.

¹⁵ Cf. the deliberation no. 3 of the City Council of Cerda on the financial distress declaration of the 23rd February 2017.

assignments, acquisition of goods and services, as well as proven and potential litigations. In addition, a low rate of tax collection stemming from an endemic evasion was found.

A careful reading of such a report shows that the Municipality's debt essentially originated in the decade 2002-2013 (Sole Auditor of Cerda Municipality, 2017, February: 7). Interestingly, in the early 2000, Cerda was engulfed in a political and administrative scandal that led to the dissolution of the City Council in 2006, because of

“forms of interference of organised crime, detected by the relevant investigative bodies, [... that exposed] the Municipality itself to pressing constraints, compromising the free determination of the bodies and the good performance of Cerda's municipal management”¹⁶.

The behaviours certified by the Italian Magistrates' inspection activity¹⁷ mainly concerned with the improper conduct of administrative procedures related to procurement and the underlined contractual activity of the local Administration, which consequently implied liquidation of sums and accounting choices which were not compliant with legal provisions¹⁸. Indeed, rather than with a public evidence procedure, commissions of public works carried out by direct and fiduciary assignment were identified; in some cases, the necessary conditions for the appointment were even disregarded and the regular succession of procedural acts was altered, such as to provide unjust capital advantages to specific companies to the detriment of the Municipality¹⁹.

More in detail, it was demonstrated that the provisions of the Public Contracts Code and the accounting rules of that time were not respected, thus constituting the crime of ‘ideological forgery in public act’: by means of formal documents, false statements and accounting claims were, indeed, produced intentionally to legitimise obvious and unfair capital

¹⁶ Page 1 of the provision of the second dissolution of the Municipality of Cerda, issued with the d.P.R. 12 December 2006, published in the Italian Official Journal no. 301 of 29-12-2006, as a result of the article 143 of the TUEL.

¹⁷ Cf. the judgment of the Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007, p. 7.

¹⁸ On some charges, the defendants were acquitted in the first instance by decision of the Judge or thanks to the institution of the statute of limitations. Cf. the judgments of the Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007; of 11-05-2012, no. 312/12, procedure no. 891/2009. Some sentences were, however, partially reduced to the second degree of judgment. Cf. the judgment of the Second Criminal Section of the Court of Appeal of Palermo of 06-02-2014, no. 592/14, procedure no. 891/2009. Finally, in front of the Supreme Court of Cassation, some appeals were found inadmissible. Cf. the Supreme Court of Cassation's ordinance of 07-01-2015, procedure no. 891/2009.

¹⁹ Cf. the judgments of the Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007; of 11-05-2012, no. 312/12, procedure no. 891/2009.

advantages to specific companies and identified professionals²⁰. The false statements mainly concerned never-proved ‘informal tenders’ aimed at, on the one hand, targeting the choice of the contractor through the restricted negotiated procedure²¹ and, on the other hand, facilitating the related payments²². As it emerges from a sentence:

“a *modus operandi* such as not to allow anyone to verify that the tender was completed, thus allowing the public official to proceed with the most complete arbitration on carrying out market consultations”²³.

In other cases, on the other hand, the approval of metric computes for specific supplies was falsely attested through special executive decisions which, in some cases, were non-existent²⁴. It was also ascertained that the rules of public accounting were broken not only by the false claim of financial coverage, but also by the allocation of expenditure to budget chapters that were not relevant, in order to ensure the total availability of the needed resources²⁵.

Other kind of anomaly was related to pre-payment for public works that were neither formally assigned nor substantially carried out, which constituted the crime of ‘abuse of office’ due to the subversion of the rational execution of tender and the attribution of undue advantage to the payees:

“the recurrence of abuse is to be considered indisputable, as there is no room for doubt about an excusable interpretative error, inconceivable given the macroscopic nature of the anomaly in question.”²⁶

Beyond the outcome of these judgments, and coherently with the purely-managerial nature of this research work, such verified practices were enabled by consolidated cultural

²⁰ Cf. the judgment of the Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007, pp. *c-m*.

²¹ In case of informal tendering, the legislation of that time, namely the law 2 August 2002, no. 7, published in the Official Journal of the Sicilian Region no. 37 of 10-08-2002, required a careful and actual market scrutiny in the search for the highest bidder.

²² Cf. the judgments of the Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007; of 11-05-2012, no. 312/12, procedure no. 891/2009.

²³ Cf. the judgment of the Criminal Collegiate Section of the Court of Termini Imerese of 11-05-2012, no. 312/12, procedure no. 891/2009, p. 12.

²⁴ *Ibidem*, pp. 7-9.

²⁵ *Ibidem*, pp. 14 *et seq.*

²⁶ Cf. the judgment of the Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007, pp. 38-39.

patterns and governance structure within the Municipality, which undoubtedly impacted over its performance and, as a result, the local community. In fact, as highlighted in a sentence, these are:

“facts capable of damaging public trust and the interest of the PA [...] the good performance and impartiality [...] in the exercise of a public function within the administration of the Municipality of Cerda [...] with repercussions not only on the budget but also on the image of the PA”²⁷.

Resuming, the key-events concerned: the omission of publication of calls for tender; the substantial and formal limitation of participation in tendering procedures; the use of specific or too vague evaluation criteria and, therefore, the exclusion in favour of some economic operators; pre-payments for public works that were neither formally assigned nor realised²⁸.

Finally, some events relating to commissions of professional works and out-of-budget debt management²⁹ which, following a course of action and producing impacts similar to those outlined above, deserve to be mentioned. In particular, for those assignments, on the one hand, the political authorisation of the related expenditure was partial or even non-existent; on the other hand, the reporting of the out-of-budget debt was not initiated for possible recognition by the City Council. Although the contractual relationship was sometimes not formalised for the omission of the manager, the Municipality was condemned for unjustified enrichment, as the material facts of the performance executions and the recognition of the usefulness for the benefit of the local Authority were proven³⁰.

5.4 Research methodology: Thematic analysis and coding techniques

The case-study research strategy (Saunders et al., 2019: 196-199; Yin, 2018) allowed a direct approach with some Public Officials of the Municipality of Cerda. It seems appropriate to point

²⁷ Cf. the judgment of the Criminal Collegiate Section of the Court of Termini Imerese of 11-05-2012, no. 312/12, procedure no. 891/2009, pp. 46-47.

²⁸ For more detailed information on the many events succinctly mentioned here, cf. the judgments of the Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007; of 11-05-2012, no. 312/12, procedure no. 891/2009.

²⁹ The Italian regulation establishes that every expenditure of local governments has to be approved and budgeted by the related City Councils and, in the case where new expenditures should arise later, it is provided an approval procedure for the related debts that are, therefore, called ‘out-of-budget’. At this regard, cf. the articles nos. 191 and 194 of the TUEL.

³⁰ For details on these events, cf. the judgments of the Civil Section of the Court of Termini Imerese of 05-06-2013, no. 291/13, procedure no. 581/2009; of 11-06-2014, no. 576/14, procedure no. 580/2009; of 11-06-2014, no. 577/14, procedure no. 1225/2009; of 16-03-2015, no. 253/15, procedure no. 423/2009.

out that the municipal employee officers interviewed were all on duty during the period under investigation and they are in office nowadays, although their names do not emerge from the documentary analysis of the judgments. This strategy was, therefore, crucial in extrapolating and collecting significant information, clarifications, mental models and perceptions of key-players characterising the operational and managerial mechanisms of that specific organisational reality over the last decades.

The chosen case is also exemplary in that the public Institution is one of the first to have experienced the dissolution for mafia infiltrations³¹ twice. The case is also representative for the type of mismanagement behaviours taken in public bargaining.

The research was conducted through in-depth, non-standardised, face-to-face interviews (Dick, 1998) with five city Officials. The criteria adopted for the selection of the interviewees (Zhang & Shaw, 2012: 8-10) were three:

- relevance of the role in the local policy design and decision-making process;
- personal expertise;
- historical knowledge of the Municipality.

In the first part of the interviews, held at their respective institutional offices in the summer of 2019, informal conversations were conducted on the causes of the financial distress of the Municipality of Cerda, while, in the second part, probing questions were asked to clarify the meaning of certain key-concepts.

A process of *thematic content analysis* (Boyatzis, 1998) allowed to systematise ideas and statements emerging from the interviews through the adoption of coding techniques of qualitative data. In particular, the process of *open coding* (Corbin & Strauss, 2008: 2) firstly allowed to attribute precise meanings to the content of the interviews. This technique, indeed, allows to glimpse, interpret and conceptualise possible inherent meanings of qualitative data in relation to specific contexts.

Later, the complex nature of the concepts expressed by the interviewees and the relationships existing between them required the use of the *axial coding* technique (Corbin & Strauss, 2008: 27) to identify specific sub-themes within which bring the found open codes back. Notably, axial coding allows to combine and cluster arguments, ideas, terms, and so forth, according to coherent schemes of meaning.

³¹ Cf. the d.P.R. 12 December 2006, published in the Italian Official Journal no. 301 of 29-12-2006 and the d.P.R. 30 September 1991, published in the Italian Official Journal no. 231 of 2 October 1991.

The codes were extracted from the content analysis of the interviews in the light of both the relevant literature highlighted above and the specific case-study.

Applying such techniques is a time-consuming activity, but it turned out to be fundamental for the analysis of the overall case-study on account of the context-dependent nature of the phenomenon at hand. Indeed, from this process, three macro thematic areas, which were useful to answer the research questions of this and the following chapters, emerged.

5.5 The non-structured, face-to-face, convergent interviews

Below is a narrative of the in-depth, unstructured interviews on the state of crisis of the Municipality of Cerda, lasting an average of 60 minutes each and conducted in the summer of 2019 at the Cerda's Municipal House. During this type of interview, respondents are left free to express themselves and the researcher asks them to answer exploratory questions to delve into certain content useful for research aims (Saunders et al., 2019: 436-444).

The transcription of the interviews is the result of an iterative process of summarising the topics covered during the meetings and recorded by meticulous and faithful annotations, which are contained in Appendix A. The coding process was derived from a content analysis of the interviews and ultimately allowed the identification of three thematic areas, 12 sub-themes, and 56 open codes that are showed in Table 5.1.

5.5.1 Theme 1: The signals of the financial distress of the Municipality

“The signals of the financial imbalance of the Municipality emerged between 2013 and 2014” (Public Official #1, 2019). The situation became critical, as it was clearly demonstrated by the presentation of budgets, year after year, with considerable delays compared to the statutory deadlines³² and the use of administrative surpluses according to the accounting opportunities prior to the introduction of the harmonised public accounting³³. However, when the latter came into force in 2016, the application of the new accounting rules was such that the actual assets of the Municipality were lower than the theoretical ones, mainly represented by hardly-collectable tax credits.

³² See the art. 18 of the legislative decree 23 June 2011, no. 118, published in the Italian Official Journal no. 172 of 26-07-2011.

³³ The harmonised public accounting stems from the transposition process of the Council Directive 2011/85/EU of 08-11-2011, which established common rules for the European national budgetary frameworks, at the aim to foster transparency, comparability, completeness and truthfulness. As such, on the one hand, it requested the adoption of coordination mechanisms in budget planning between all the sub-sectors of the Italian public apparatus and, on the other hand, highlighted the need for uniformity of accounting rules and procedures. This implied the transition from the accrual basis of accounting to the cash basis one.

Understanding the Impacts of Corruption on the Performance of a Local Authority: A qualitative Approach

Table 5.1. Themes, axial codes (or sub-themes) and open codes that can be traced back to the research question. Source: Gnoffo (2021b: 12).

THEMES	AXIAL CODES OR SUB-THEMES	OPEN CODES
The signals of the financial distress of the Municipality	Confusion in reporting and approval processes of budgets and financial statements	<ul style="list-style-type: none"> - 2015 is the most recent financial statement approved - presentation of budgets beyond statutory deadlines
	Difficulty to adapt to the new public accounting regime	<ul style="list-style-type: none"> - new accounting rules - verification by accrual or cash - tax credits that are difficult to collect - restrictions on the use of administration surpluses - credit fund of doubtful chargeability (FCDE)
	Opinion on the declaration of financial bankruptcy	<ul style="list-style-type: none"> - discordant organisational opinions - the Cerda case is atypical - no accounting imbalance, only cash one
	Disservices	<ul style="list-style-type: none"> - potholes, devastated country roads - outages in the municipal water supply network - a never-completed school building - incomplete sewer - non-functioning sewage treatment plant
	National regulation	<ul style="list-style-type: none"> - reduction of state transfers - blocking of personnel turnover
	Difficulties in collecting taxes	<ul style="list-style-type: none"> - citizens do not pay taxes or pay them late - institution's low responsiveness in limiting tax avoidance
The impact of the previous administrations' work on the current condition of the Municipality	The mismanagement events of the period 2000-2006	<ul style="list-style-type: none"> - off-budget debts - incremental budgeting logic - illegitimate spending commitments - professional assignments - litigations for professional works - local procurement of goods and services at exorbitant costs - insufficient financial coverage - expenditures that are not committed and not relevant to specific budget chapters - general organisational connivance - circumventing the approval process for the formalisation of expenditure by the City Council - a physical archive that remains inaccessible due to poor management - lack of professionalism (of the internal staff) - supremacy of some individuals of the bureaucratic machine over politics - injunctions/revaluations/injunctions/foreclosures
	First dissolution (1991)	<ul style="list-style-type: none"> - predominantly political scandal - spoils system - requirement of skills for competence - fiduciary relationships - inadequate management quality
	Computerised procedures and controls	<ul style="list-style-type: none"> - adoption of SIOPE - CONSIP purchasing procedures adopted only a few years ago - ineffectiveness of TPPCTs - code of conduct
	General level of vocational training of the administrative staff and tension to learning	<ul style="list-style-type: none"> - compartmentalised management - passive acceptance of credit protection and recovery legal acts - little responsibility and a weak sense of institutions - stigmatised bureaucratic fulfilments - non-existence of training programmes - emptying of managerial roles - missed opportunity provided for by the decree-law no. 35/2013
Local political-administrative paradigm and level of citizens' satisfaction	Political dynamics	<ul style="list-style-type: none"> - political improvisation - administrative short-circuit - (non-)virtuous governing model - vision focused on control rather than service to the citizen
	Image of the Municipality	<ul style="list-style-type: none"> - perception of an inefficient administrative machine - loss of trust in public institutions - PA is no longer a reference point for the local citizens

Complaining about a general inequality in the criteria for allocating national funds to local authorities, the Officials highlighted how the contraction of state transfers³⁴ has put in “difficulties municipalities that did not have an efficient working system and administrative machinery” (Public Official #3, 2019). “Many municipalities are experiencing financial distress, but they are able to avoid to declare it” (Public Official #2, 2019). Indeed, like other local experiences, politicians and managers “tended to ignore the situation of insolvency” (Public Official #1, 2019), but the local government of Cerda continued to receive injunctions for non-payment of debts.

Despite a faltering financial management, the 2015 financial statement, from which the failure procedure began, was approved. From then on, a little more than a year later, the situation deteriorated to such an extent that the City Council, with the positive opinion of the sole Auditor, but with dissenting organisational opinions, could no longer delay and had to declare the financial bankruptcy status of the Municipality³⁵.

As with many other Italian local authorities, “citizens do not pay taxes or pay them late” (Public Official #4, 2019). Over the years, indeed, the average tax avoidance has been around 50% of the overall certified tax credit (Public Official #1, 2019; Public Official #2, 2019) and the local Government’s responsiveness in limiting it has been very low, leading to further deferrals in collecting what has been owed by local taxpayers.

From a different point of view, the municipal financial situation would be in balance, since the failure to balance incomes and expenditures would mainly be due to the effects of the provisions of the harmonised public accounting, which came into force in 2016. In particular, “the Cerda case is atypical and, as such, avoidable” (Public Official #2, 2019), since it would seem that there is no accounting imbalance, but only a cash one, caused by the Municipality’s inability to collect outstanding assets, replenish treasury and, thus, pay its debts off.

Moreover, the restrictions imposed by the harmonised public accounting on the use of administrative surpluses, to be set aside to the credit fund of doubtful chargeability (FCDE) to

³⁴ The reference is to the provisions of the so-called ‘Calderoli’s Law’ of 5 May 2009, no. 42, published in the Italian Official Journal no. 103 of 06-05-2009, in the implementation of the amendments to the art. 119 of the Italian Constitution by the Constitutional Law of 18-10-2001, no. 3, published in the Italian Official Journal no. 248 of 24-10-2001 – i.e., the so-called ‘Title V reform’.

³⁵ The case of financial distress of the Municipality of Cerda can be traced back to the hypothesis referred to the art. 2, paragraph 2, letter *c*, of the d.P.R. 24 August 1993, no. 378, published in the Italian Official Journal no. 227 of 27-09-1993. Cf. the resolution no. 165/2016/PRSP of the regional control Section for the Sicilian Region of the Italian Court of Auditors.

cover tax credits that are difficult to collect³⁶, have reduced the Municipality's spending capacity, hence causing its operational inertia.

Finally, the aggravation of the debt exposure due to what emerges from the judgments seems to have had a lesser impact on the Municipality's insolvency than the bad administration due to apathy, unpreparedness and excessive workload (Public Official #2, 2019).

5.5.2 Theme 2: The impact of the previous administrations' work on the current condition of the Municipality

The general opinion is that the years in which the second dissolution for mafia infiltration occurred had a limited impact on the current situation of the Municipality. In particular,

“past administrations created significant budget holes for the assignment of public works due to a lack of funds. It was essentially an accounting problem, but there was general connivance with such mechanisms” (Public Official #4, 2019).

Albeit “only part of them related to illegitimate spending” (Public Official #2, 2019), since the 1990s, the logic of incremental budgeting³⁷ has been politically encouraged within the local Government (Public Official #3, 2019). At least until the introduction of harmonised public accounting, the accrual basis of accounting system and a greater availability of state transfers allowed the Municipality to commission professional assignments – design works in particular – with a formal spending commitment lower than the actual burden.

“The completion of the work took place when, with a reallocation of funds, transfers could compensate for the full amount of the expenditure. In such a way, off-budget debts could arise without any particular concern about the availability of the related coverage that, sooner or later, the public Body would have obtained. Having missed this opportunity, as a result of the contraction of the sums transferred by the State, the permanence of that logic has gradually reduced the level of solvency of the Municipality and generated several disputes for professional works which were carried

³⁶ According to Annex 4/1 of the legislative decree no. 118/2011, “The determination of FCDE, in management statement, is governed by the applied accounting principle concerning with financial accounting in paragraph 3.3”, which sets forth that “The dubious and difficult-to-collect incomes are also assessed for the entire amount of the credit [...] and they are counted to the year in which the tax roll is issued and a reserve to the credit fund of dubious collectability is carried out, constraining for this purpose a share of the administrative surplus”. In other terms, for each administrative exercise, this fund inhibits the use of dubious or difficult incomes to cover expenses incurred in that financial year.

³⁷ The incremental budgeting is typical of the *Old Public Administration* paradigm. See Chapter 4.

out but not regularised. Indeed, the latter highlight design assignments, without or with insufficient financial coverage, from which certain debts derived” (Public Official #5, 2019).

Prior to the introduction of the SIOPE³⁸ in 2008,

“drawing from resources already allocated in specific budget chapters to cover expenditure that were not committed and not relevant to those same chapters, or committing more than there was available, did not encounter insurmountable difficulties. This was done by circumventing the approval process for the formalisation of expenditure by the City Council” (Public Official #4, 2019).

These procedures were facilitated by inadequate record management such that, nowadays, “the Municipality has a physical archive that remains inaccessible due to poor management” (Public Official #1, 2019). As a result,

“the accounting documents relating to the behaviours of maladministration were not available and this made everything blurred and illegible, such as to slow down the Judiciary and the judicial Police in the investigation of specific facts” (Public Official #5, 2019).

In addition,

“purchase procedures in Consip³⁹ were introduced only a few years ago in the Municipality. In the past, procurement of goods and services was carried out exclusively locally and at exorbitant costs. There were no rotations in either invitations or direct assignments in procurement procedures [... also,] reworks due to incomplete

³⁸ “SIOPE (Information System of Public Government Operations) was carried out on the basis of an agreement between the General Accountancy of the State and the Bank of Italy, with the aim of making available an archive of information concerning the receipts and payments of public administrations.” Cf. SIOPE; Sistema Informativo delle Operazioni degli Enti Pubblici [Informative System of the Operations of Public Bodies]; <https://www.siope.it/Siope/>; November 5, 2020.

³⁹ “Consip is a joint stock company, 100% owned by the Italian Ministry of Economy and Finance, which operates – according to the strategic guidelines defined by the Shareholder – in the exclusive service of the Public Administration. Its mission is about making the use of public resources more efficient and transparent, providing administrations with tools and expertise to manage their purchases and stimulating companies to compete with the public system”. Cf. Consip; Consip official website; <https://www.consip.it/azienda/chi-siamo>; November 30, 2020.

or deficient interventions have generated debt upon debt, thus preventing some municipal Offices from planning their activities” (Public Official #4, 2019).

As a result, the local community has suffered several infrastructure deficiencies and disruptions, such as “potholes, devastated country roads, disruptions in the municipal water supply network” (Public Official #1, 2019), “a never-completed school building, an incomplete sewer and a sewage treatment plant, to date, not functioning” (Public Official #5, 2019).

The 1990s were also significant for the reverberations on the bureaucratic machine of the political scandal, linked to the local organised crime, which led to the first dissolution for mafia infiltrations of the City Council in 1991⁴⁰. In those years, there was a strong cultural attachment to the consideration of the PA as a guarantor of social welfare, and this favoured the adoption of political patronage (Public Official #3, 2019).

The public Body has increasingly suffered “a lack of professionalism due to the emptying of managerial roles linked to retirements and the blocking of personnel turnover resulting from national reforms” (Public Official #5, 2019), which established some restrictions to fill vacancies in local governments⁴¹. Due to redundancies in the administrative staff descending from that *modus operandi*, the local politics had to “cover certain senior positions by using the ‘spoils system’ mechanism and appointing those who were already available in the staff” (Public Official #5, 2019).

As in many other local realities, the result was that

“certain roles were occupied without any requirement of skills for competence. Some civil servants were inadequate, as they were not legitimised by meritocracy, but by the pleasure of politics because of trust-type relationships” (Public Official #5, 2019).

The lack of a capable ruling class created fertile ground for the events that occurred in the 2000s, since:

⁴⁰ See the provision of the first dissolution of the Cerda Municipality issued with d.P.R. 30 September 1991, published in the Italian Official Journal no. 231 of 02-10-1991.

⁴¹ For the regional and local governments, the regulatory evolution on this topic moved through: the law 27 December 2006, no. 296, published in the Italian Official Journal no. 299 of 27-12-2006; the decree-law 24 June 2014, no. 90, published in the Italian Official Journal no. 144 of 24-06-2014; and the law 28 December 2015, no. 208, published in the Italian Official Journal no. 302 of 30-12-2015.

“Some elements of the bureaucratic machine were able to acquire positions of concrete supremacy in decision-making, even compared to the political class of the time, by virtue of the well-established presence in the local government” (Public Official #5, 2019).

Hence, the Municipality returned to its old schemes, suffering a “significant lack of internal controls” (Public Official #3, 2019), inadequate management quality and watertight compartment management (Public Official #5, 2019). Also, the insufficient expertise of the management and the total non-existence of training programmes seem to have played an important role in the financial distress of the local Authority:

“The inertia in verifying the exact amount of its liabilities – at least until an initial reconnaissance in 2013 –, mismanagement of the debt exposure, the failure to ascertain off-budget debts and the passive acceptance of procedures to protect third-party creditor claims, such as injunctions, revaluations, foreclosures and formal notices, have led to the Municipality’s insolvency status” (Public Official #5, 2019).

The Administration could have put a brake on the progressive aggravation of its financial equilibrium “by preparing an appropriate legal defence on certain debt assumptions and exploiting certain financial opportunities for certified debts provided by the decree-law no. 35/2013⁴²” (Public Official #5, 2019). It emerges how there has been a “general lack of sense of responsibility and institutions, as well as a poor managerial culture” (Public Official #5, 2019) that have been added to the lack of professionalism, thus generating underperforming governance structure over time.

At this regard, a first effect was the stigmatisation of certain bureaucratic requirements and formal duties. Notably,

“public servants are more interested in the proper use of management software provided to the PA than in their own purpose; this factor has limited the action of the insiders to the margins of manoeuvre dictated by the same software” (Public Official #4, 2019).

⁴² Cf. the decree-law 8 April 2013, no. 35, published in the Italian Official Journal no. 82 of 08-04-2013, bearing “Urgent provisions for payment of overdue debts of public administration, for financial rebalancing of local authorities, as well as for payment of taxes of local authorities. Provisions for the renewal of the Presidency Council of Tax Court”, and converted into the law 6 June 2013, no. 64, published in the Italian Official Journal no. 132 of 07-06-2013.

Secondly, even though the local Government has a formal code of organisational conduct, it seems difficult to carry internal controls out in practice, since

“some civil servants have total rejection and distrust of these kinds of tools. Besides, personal relations with colleagues may slow down any possible reporting to the relevant Authorities. The most recent law⁴³ imposed the formulation of the Triennial Plans for the Prevention of Corruption and Transparency (TPPCTs), which mainly implies formal internal controls of the organisational system through a *post-facto* evaluation. As a result, they are not completely effective” (Public Official #4, 2019).

5.5.3 Theme 3: Local political-administrative paradigm and level of citizen satisfaction

Despite the significant levels of tax evasion, the prevailing perception of the local citizens is that “PA is run by incompetent civil servants” (Public Official #2, 2019). Such a culture, combined with a greater proximity to the territory, has exacerbated the poor perception of the local Government by the community.

“A vision focused on control rather than service to citizens, but also a certain degree of political improvisation, have resulted in an administrative short-circuit at the expense of a virtuous governing model” (Public Official #3, 2019)

which has finally impacted on the economic and financial equilibrium of the Municipality. As a result,

“The inability of the Municipality to address the needs of the community and the perception of an inefficient administrative machine have led to the disconnection of citizens from the political life and the actual problems of the territory, as well as to the loss of trust in public institutions” (Public Official #4, 2019).

As pointed out by the Public Official #3 (2019) and the Public Official #4 (2019), a sound PA should approach the served community through a broad involvement of its stakeholders in the formulation of local policies and the creation of a strong, stable and widespread sense of institutions. Indeed, unlike the 1980s, “the local PA is no longer a reference point for citizens, but an obstacle to overcome” (Public Official #4, 2019).

⁴³ Cf. the legislative decree 14 March 2013, no. 33, published in the Italian Official Journal no. 80 of 05-04-2013.

5.6 Finding a matching between wrongdoings and bankruptcy in the retrieved data

The relationship between mismanagement and the current crisis of the Municipality of Cerda is reflected by four main sources:

- the City Council's deliberation of financial distress;
- the report of the auditing Board;
- the judgments;
- the interviews with the five Public Officials.

Noting that the first two do not show an in-depth analysis of the substantial causes that generated the financial insolvency and that the judgments delve into the context from which the facts considered crimes were born, this paragraph places particular emphasis on the interviews conducted during the fieldwork in the summer of 2019.

It is possible to highlight a pattern being common to all interviews. In particular, during the first phase, in which the Public Officials were free to express themselves on the financial distress of the Municipality, their narratives focused on the primary causes being exogenous to the organisation, due to the ease that relates them to their formal causes. That confirmed their general tendency to ascribe the financial instability of the Municipality, on the one hand, to the considerable non-compliance by citizens with the payment of local taxes and, on the other hand, to the introduction of harmonised public accounting.

However, in the second part, the respondents, thanks to the probing questions aimed at deepening the existence of endogenous primary causes, ended up admitting, almost spontaneously and although each to a different extent, the origin of the formal causes in the inadequate management that has protracted over time.

Firstly, it should be pointed out that the entry into force of the harmonised public accounting, rather than to be one of the causes, highlighted a *modus operandi* that was not in line with the public accounting provisions in force at the time of the investigated events. As previously pointed out, the Italian Judiciary was able to detect the recurrence of illicit accounting practices, such as false claims concerning financial coverage for local spending and payment attributed to budget chapters different from those of relevance that were instead found to be insufficient.

The research also showed a tendency to incur expenditures, the amount of which was higher than the actual budgetary commitment, with the burden of covering the excess part with resources arising from future transfers from the State.

That included arbitrary management of public resources in breach of the statutory constraint of budget which, together with the considerable delays in approving accounting

documents, facilitated the use of frequent off-budget practices, sometimes violating the process of admitting debts that must be carried out by the City Council⁴⁴. This has, on the one hand, made management of incomes increasingly uncertain and random and, on the other hand, increased the debt of the public Body exponentially over time.

Secondly, the drastic reduction in state transfers revealed the Municipality's lack of financial autonomy caused by the endemic tax evasion, which has never been adequately faced. The local Government's inertia on tax collection has made the budget manoeuvres increasingly rigid because of the gradual increase in the FCDE to obviate the certified bad credits by constraining a share of administrative surpluses⁴⁵. It emerges that not only the Municipality could not implement public policies to enhance local tax collection, but also that it actually employed unavailable administrative surpluses to compensate for the certified bad credits, provided that such surpluses also represented an outcome of the mismanagement practices that were not in line with the accounting principles in force before 2016, thus generating real deficits.

Therefore, it is clear that the introduction of the harmonised public accounting has, in fact, made clear management practices, whose negative effects have reverberated on the economic and financial equilibrium of the public Body. Based on the second part of the interviews, these practices also gave rise to several legal disputes that, in the medium-long term, further increased the Municipality's outstanding debt.

The vicious circle highlighted by the five Public Officials is an outcome of the poor management that has been made evident by: the absence of planning; the frequent use of out-of-budget debts; the inappropriate use of spoils system on the basis of fiduciary logics; the lack of effective internal communication processes between offices; an organisational inconsistency resulting from a short-sighted managerial vision based on watertight compartments; the low levels of accountability and sense of the institutions; the inadequate level of transparency of political and managerial choices.

In summary, the prevalence of logics of inappropriate political and directional control on the spirit of service to the community disconnected the Municipality of Cerda from a virtuous citizen-centric model and, finally, has caused its inevitable financial distress.

⁴⁴ As required by the article no. 194 of the TUEL. See footnote 29 of this chapter.

⁴⁵ See footnote 36 of this chapter.

5.7 Conclusions

The sources used here consistently corroborate the existence of some links between past pathological management routines and the declaration of financial bankruptcy of Cerda Municipality.

As non-governable primary causes, the change of accounting regime and the contraction of state transfers have certainly had the major effect on the Institution's state of crisis. Thanks to the use of technical-accounting opportunities, the actual financial condition remained hidden until its explicit manifestation in the economic and financial imbalances that, ultimately, forced the public Body to formally declare its insolvency status. In fact, together with the reduction in state transfers, the entry into force of the harmonised public accounting made the financial distress of the Municipality no longer delayed.

To some extent, the historical causes of the local Authority's debt plight are attributable to practices of mismanagement, some of which were clearly linked to private purposes. However, as demonstrated by the Italian Magistrates and according to the interview outputs, the cases underlying misconducts showed the unequivocal existence of governance structure and cultural proneness to recur to or simply ignore inappropriate expedients for satisfying interests diverging from the collective needs. As such, beyond the legal aspects of the investigated episodes – which do not fall within the scope of this research work –, ethical, economic and social incentives of the system under scrutiny, which dynamically enabled their occurrence, deserve attention under the performance management perspective, in order to frame and deal with their impacts over time.

Accordingly, the following parts of this research project deepen the cause-and-effect relationships identified in this chapter under a systemic and dynamic point of view of PMSs, so as to support the key policy- and decision-makers of the local Government to formulate and implement adequate and feasible anti-corruption strategies for the future. However, given the representativeness of the case under analysis, the present study is largely valid for several other municipalities that share similar institutional traits and governance structures.

CHAPTER 6

ANALYSING OUTCOMES OF CORRUPTION IN PUBLIC PROCUREMENT THROUGH DYNAMIC PERFORMANCE MANAGEMENT¹

6.1 Introduction

The case of Cerda is a typical example of how inappropriate management of public resources, mainly linked to enabling governance structures and cultural premises, increases local governments' spending and worsens their debt position, thus reducing their capability of delivering essential public services in the course of time. Inevitably, the served communities suffer the economic losses resulting from the bad administration of collective resources and, under a broader point view, miss development opportunities which could have otherwise exploited (Liu et al., 2017: 681). In fact, the redefinition of expenditure priorities stemming from inappropriate practices causes an enormous dispersion of public budgets, the disregard of collective needs and the shift of significant part of spending charge onto who cannot have access to the relative goods or services privately (Robinson, 2006: XIV).

In the literature, the relationship between wrongdoings for private benefit in public procurement and local government performance has mainly been explored statically through efficiency-based proxy measures. The preeminent focus on economic efficiency may have been a consequence of the fracture between economic and ethical values in the most widespread managerial and academic mindsets, which have favoured the understanding of efficiency as a standard excluding any ethical consideration (Borgonovi, Monteduro, & Mussari, 2018: 121).

Searching for blurred malfeasances by relying on procurement prices, thresholds in public contracting, competition degree in tendering, level of public servants' discretion is unavoidable in terms of efficiency and quality of public purchasing (Domberger & Jensen, 1997). Nevertheless, statically investigating these elements may abstract data from the process in which it is found, so

¹ In compliance with the Copyright Transfer Agreement, submitted by the author on the 1st of February 2021, this chapter is based on the article: Gnoffo, S. 2021a. A Dynamic Performance Management Approach to Frame Corruption in Public Procurement: A Case-Study. *Journal of Public Procurement*, 21(1): 75-96. © 2021, Emerald Publishing Limited.

that its value can change over time, but the relationships under investigation are assumed to remain more or less stable over the considered time lapse (Bianchi, 2016: 3). As such, there is a possibility that the causes underlying changes of investigated variables may not be linked to corruption, and that some others may be disregarded.

In the light of its complexity and context-dependent features, to fight corruption effectively requires even an approximate knowledge of the feedback structure of the investigated problems under a dynamic perspective. Also, the use of relevant performance indicators may help local public managers to detect possible illicit behaviours and trigger system changes pushing away from either extant or potential corrupt practices.

The prevalent research does not seem to provide any causal and systemic framework of possible relationships involving local government performance and wrongdoings in public procurement. Exploring the possible underlined dynamic mechanisms of corruption in such a field systemically may help policy- and decision-makers to investigate their impacts on the broader organisational performance and get an insight into the possible trade-off between change and resistance (Schweiger et al., 2018), especially where cultural interventions and better performance are needed (Bianchi, 2016: 149).

Based on the Cerda case, an outcome-based DPM approach (Bianchi, 2016) is here proposed to explain the causal relationships between past corruption in public procurement and local government performance. With this aim, this chapter makes use of both the results of the thematic analysis carried out in the previous chapter and secondary data extrapolated by: the official documents of the mentioned judgements; the Municipality's available budgets and financial statements; the ISTAT's and SIOPE's open-access repositories; and informal conversations with both the municipal staff and the President of the Special Management Commission of Cerda Municipality bankruptcy².

It is important to bear in mind that, according to the DPM view, outcomes are considered as end-results measuring the performance of a given organisation in a synthetic way, and are modelled as flows modifying stocks being not purchasable as other strategic endowments of resources (Bianchi, 2016: 73). In addition, knowledge about community outcomes of corruption may enable policy- and decision-makers to: deploy resources to intervene in risk areas; evaluate public sector effectiveness; increase efficiency in procurement budgeting; clearly define

² Appointed with d.P.R. 16 June 2017. Cf. http://www.comune.cerda.pa.it/cls_componenti.htm.

accountabilities of civil servants; and foster institutional trust among citizens (Hatry, 2003: 142-143).

Two main sub-questions are here addressed: *What are the possible causal relationships allowing corruption in public procurement to generate its impacts on local government performance? To what extent can an outcome-based dynamic view in performance management reduce the causal ambiguity of corruptive phenomena and enhance the endeavour of preventing and repressing them?*

After a literature overview of the impacts of procurement corruption on the performance of local authorities, based on the analysed case-study, a DPM framework of the relationships between corruption and outputs of the procurement process is proposed. Then, the model is amplified to depict the process outcomes and how they feedback to the procuring organisation over time. The chapter concludes with some policy suggestions tested through model simulation.

6.2 A literature overview of outcomes of corruption in public procurement and performance levers at local level

In this section, a literature overview of the main findings related to the outcomes of public procurement corruption on local government performance and the fundamental managerial levers to deal with unethical behaviours is provided. International findings were separated from the Italian ones, in order to give both a broad and a narrow perspective on the relevant body of literature where this research project is actually located. Findings are disparate and multi-faceted, so that this section does not pretend to be an exhaustive review of the literature in the public management field.

6.2.1 International research findings

Empirical research works on the impacts of corruption in public procurement on local government performance are limited (Basheka, 2009: 1), as country – e.g., Sargiacomo et al. (2015) – and cross-country-based studies – e.g., D'Souza and Kaufmann (2013) – prevail. Furthermore, every study is logically context-dependent.

Coherently with what was stated by Robinson (2006: XIV), Basheka et al. (2013) and Odeku (2018) argued that procurement corruption in African local governments excludes less-wealthy people from quality services. Likewise, Basheka et al. (2015) highlighted the threatening

nature of wrongdoings in public procurement for poor citizens in Uganda and posited collaborative solutions between citizens and local governments through social accountability.

Previously, Basheka (2009) analysed some forms of malfeasance to investigate their negative impacts on the service delivery to Ugandan citizens and emphasised the role played by good governance in curbing illicit practices in public procurement for personal advantage. To similar conclusions came Fourie (2018), who discussed ethical behaviour in procurement and supply chain of local governments in South Africa and its impacts on the citizens' daily lives, pointing out the unsuccess of the regulation on financial management and accountability of politicians and municipal staffs.

Other Authors focused on the role of specific organisational performance levers in favouriting or hindering wrongdoings for private gain, disclosing what kinds of impact they may produce on particular aspect of public performance and governance.

Within the PMS field, through a case-study, Kajimbwa (2018) suggested that using benchmarking indicators in public procurement in Tanzanian local governments may improve the authorities' accountability. Indeed, as it was found by Basheka and Bisangabasaija (2010), who investigated institutional framework and management systems of a Ugandan local government to understand their deterministic effect on procurement activity, communication and monitoring and evaluation processes have some kind of correlation with relevant unethical practices.

Tabish and Jha (2012), by means of data retrieved from interviews, verified the existence of positive interrelationships between anti-corruption strategies and corruption-free performance in Indian public construction projects, emphasising the importance of managers' leadership, staff's training, law and probability to be caught in setting appropriate anti-corruption efforts fostering accountability, transparency, efficiency and quality projects. At this regard, Osei-Tutu, Badu, and Owusu-Manu (2010), by exploring corruption practices in procurement of infrastructural projects, posited a healthy procurement system for Ghana being able to elicit good governance, efficient public expenditure, transparency and accountability.

Ottou, Baiden, and Nani (2019) adopted a multiple case-study strategy to discover how some gaps in record management related to public procurement in Ghana reduced tendering process transparency, accountability, integrity and, as a result, fostered corrupt practices. Their findings support those of Neupane, Soar, and Vaidya (2014), who suggested the use of e-procurement to develop adequate anti-corruption strategies, as well as those of Lusuli and Rotich

(2014), who posited the significance of using information and communication technologies (ICTs) for boosting stakeholder involvement and long-standing relationships with suppliers to improve the Kenyan public procurement performance. Just with regard to the relational aspect of the procurement process, Sharma, Sengupta, and Panja (2019) identified some risk factors linked to social interrelationships among the involved actors.

Finally, through some interviews, Dza, Gapp, and Fisher (2015) detected the dominance of politically-driven decision-making processes in procurement in Africa and the need of improvements of public managers' expertise to get a better involvement in procurement choices, so as to enhance their accountability, authority and, therefore, reduce opportunities for corruption. Interestingly, the role played by politics in public procurement corruption was also explored by Broms, Dahlström, and Fazekas (2019), who pointed out the damaging effects on procurement outcomes of poor political competition in Swedish municipalities.

6.2.2 Italian research findings

The Italian research on public procurement corruption has mainly measured the overall weight of the phenomenon at macro level and part of it satisfy the common expectations about the related outcomes. For instance, it has been found that, in infrastructural procurements, a higher level of corruption is associated with a lower efficiency degree in the executions of public works (Finocchiaro Castro, Guccio, & Rizzo, 2014). Research results also support the existence of a causal relationship between politicians' tenure and procurement outcomes, according to which the longer the former is the worse detectable outcomes are, because of a progressive collusion with local firms (Coviello & Gagliarducci, 2017).

However, the actual effects of corruption in public procurement are not always clear, especially at local level. If, on the one hand, high complexity of projects and low institutional quality degree imply longer delays in work executions, a higher probability for local businesses to obtain contracts and a greater preference for direct negotiations, on the other hand, project complexity itself might even be more significant in contexts with low corruption risk (Baldi, Bottasso, Conti, & Piccardo, 2016). Moreover, as it was pointed out in Chapter 3, lower efficiency of procurements may not only be related to abuses, misuses or omissions of public office, but also to other objective causes linked, for instance, to regulatory burden, which may increase the average procurement price (Kelman, 1990, 2005). Actually, Bandiera et al. (2009: 1304) came to the

conclusion that Italian public authorities incur a high procurement cost in purchasing standard goods mainly because of waste excluding any private advantage for civil servants.

The distinction between ‘active’ and ‘passive’ waste (Bandiera et al., 2009) demonstrated its usefulness in other studies. Notably, Cavalieri et al. (2019: 27-28) analysed the impact of some pillars of institutional quality on the efficiency of transportation supplies and found that corruption and government effectiveness result the main channels routing the effects of the institutional quality. Also, Guccio, Lisi, and Rizzo (2019) empirically explored the opposite relationship and found that incentives to engage public purchasing officers in corrupt behaviour within Italian municipalities increase in presence of poor institutional governance, which generally implies a low degree of accountability and, as a result, a scarce performance in public works execution.

Some other studies emphasised the effects of relevant levers in the procurement process and came to surprising conclusions that might support the ideas of Leff (1964) and Huntington (1968) about the positive outcomes of corruption. For instance, Coviello, Guglielmo, and Spagnolo (2018) estimated the impact of the Italian PAs’ discretion on public procurement in terms of *ex ante* and *ex post* procurement outcomes. According to the Authors, civil servants’ discretion is not always a threat in open auctions, but it may rather allow local governments to overcome costly bureaucracy and regulatory burdens through dynamic and informal governance mechanisms, such as long-term trust relationships and reputation (2018: 2). Likewise, Finocchiaro Castro et al. (2018), by investigating the competition effect on public contracts’ efficiency due to corruption, unexpectedly found that the greater competition is the higher corruption in public works execution becomes.

Based on what above, it is possible to state that unforecastable and unidentifiable circumstances do not exclude the presence of corruption in spite of desirable procurement settings. This requires to develop an in-depth understanding of such a complex phenomenon and of its causations in practice on a case-by-case basis (Yin, 2018).

6.3 Problem statement: Debt procurement and corruption

The case of the Municipality of Cerda was already described in Chapter 5. However, in order to better understanding the development of the model, a reference to the problem under analysis and further clarifications are actually needed.

Cerda Municipality is currently facing a financial distress because of a certified and serious financial shortage, which has undermined its capability to deliver the essential local services to the households and plan its future action strategically. As the Sole Auditor of Cerda Municipality (2017, February) highlighted at the time, reviewing and re-calibrating the overall local expenditure system and defining the actual amount of the municipal incomes and debts are the most significant issues that the Municipality has faced.

The outstanding debt of the local Government did not benefit from any financial coverage, and derived from both ascertained and potential liabilities related to essential services to the community, such as garbage collection, water service, disparate procurements and professional design commissions. The mismanagement of liabilities, the passive acceptance of foreclosure proceedings, the accumulation of procedural expenditures, interests, monetary re-evaluations, legal expenditures, injunctions and formal notices contributed to the current financial situation. In addition, delays in the collection of local taxes exacerbated the consequential incapability of the Municipality to pay the current expenditures, as well as the further rise of controversies and the linked costs (Sole Auditor of Cerda Municipality, 2017, February).

The debt plight mainly formed during the period 2002-2013 (Sole Auditor of Cerda Municipality, 2017, February: 7). Just in the early 2000s, Cerda was overwhelmed by a political and administrative scandal concerning “forms of influences by the local organised crime”³, which compromised the good administration of Cerda and caused the dissolution of the City Council in 2006 for mafia infiltrations. The City Council was already disbanded in the late 1991 because of the same motivations⁴.

Some years ago, the judicial Authority verified some behaviours concerning the mistaken execution of activities linked to procurements, the related negotiations and accounting procedures, such as competitive biddings, good purchases and professional assignments. Judgements were delivered by the Italian penal Magistrates, which concerned episodes of ideological forgery in public act and abuse of office⁵, and unjustified enrichment of the Municipality connected to professional assignments⁶. Some defendants were exonerated, as either they were judged innocent

³ See. the d.P.R. 12 December 2006, published in the Italian Official Journal no. 301 of 29-12-2006, p. 1.

⁴ See the d.P.R. 30 September 1991, published in the Italian Official Journal no. 231 of 02-10-1991.

⁵ Cf. Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007.

⁶ Cf. Civil Section of the Court of Termini Imerese of 05-06-2013, no. 291/13, procedure no. 581/2009; of 11-06-2014, no. 576/14, procedure no. 580/2009; of 11-06-2014, no. 577/14, procedure no. 1225/2009; of 16-03-2015, no. 253/15, procedure no. 423/2009.

or the violation was not prosecutable any more, while some accusations were confirmed in the in-second-instance judgements and some others were partially reduced⁷, even though the following appeals to the in-third-instance Court were stated inadmissible⁸.

Wrongdoings were concerned with several public domains, such as garbage collection, construction, maintenance works for educational and urban infrastructures and water supply. In particular, the unethical behavior regarded: limitations in tendering participation consisting in the complete non-existence of adequate calls for bid, despite they were required by the law by virtue of the sizeable amount of the supplies; alterations of the rational succession of procedural acts; usage of specific or too vague evaluation criteria to favour some tenderers; anticipated payments for neither formally-assigned nor performed public works⁹.

Compared to the financial distress of the Municipality, the relevance of those events was identified by the Italian Magistrates themselves, who noticed that the investigation conducted by the Italian Authorities on the contractual activity of the local administration was in conjunction with the inspection activity resulted in the dissolution for mafia-like infiltrations in 2006¹⁰. At this regard, the face-to-face interviews with the five Public Officials discussed in Chapter 5 corroborated such a relationship.

Although those episodes sometimes kept out wilful negligence, in line with the broad meaning of ‘corruption’ adopted in this research project, they disclosed irresponsible managerial practices linked to unlawful acts and the related unjust outcomes¹¹.

Figure 6.1 and Table 6.1 show the annual and cumulative debt of the insolvency assets that was recently certified by the Special Management Commission of Cerda Municipality bankruptcy (pers. comm.).

The level of debt starts to increase between 2006 and 2007 – immediately after the dissolution of the City Council –, and it keeps going to grow for the following years. The correspondence between these amounts and what it was ascertained by the Sole Auditor of Cerda Municipality (2017, February), as well as the period to which most of the debt arose is evident and immediate.

⁷ Cf. Second Penal Section of the Court of Appeal of Palermo of 06-02-2014, no. 592/14, procedure no. 891/2009.

⁸ Cf. Supreme Court of Cassation's ordinance of 07-01-2015, procedure no. 891/2009.

⁹ Cf. Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007; of 11-05-2012, no. 312/12, procedure no. 891/2009.

¹⁰ Cf. Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007.

¹¹ *Idem*, pp. 57-58.

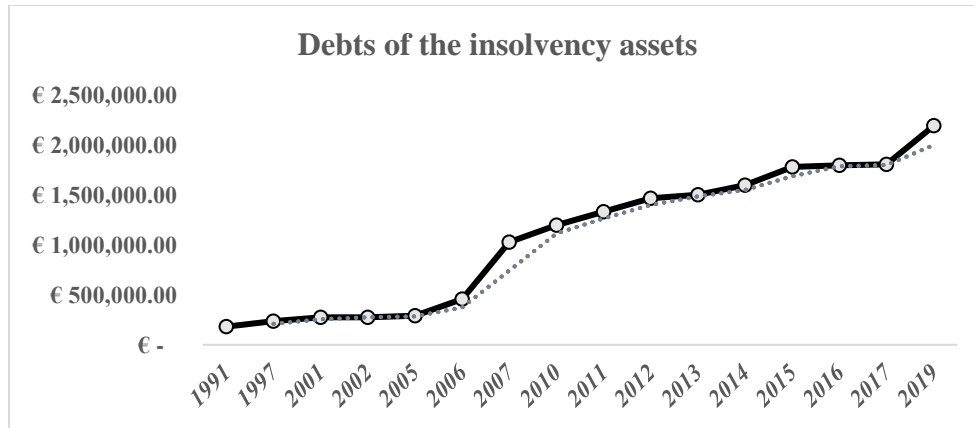


Figure 6.1. Accumulation over time (solid line) and trendline (dotted line) of the debt of Cerda Municipality. Source: Gnoffo (2021a: 77), based on the non-structured interviews with the Public Officials and the Special Management Commission of Cerda Municipality bankruptcy (pers. comm).

Table 6.1. Annual and cumulative certified debt of the insolvency assets. Source: Gnoffo (2021a: 77), based on the non-structured interviews with the Public Officials and the Special Management Commission of Cerda Municipality bankruptcy (pers. comm.).

Year	Annual debt (in EUR)	Cumulative debt (in EUR)
1991	181,911.18	181,911.18
1997	56,056.00	237,967.18
2001	36,155.07	274,122.25
2002	2,315.20	276,437.45
2005	14,037.10	290,474.55
2006	166,305.40	456,779.95
2007	572,627.26	1,029,407.21
2010	168,527.09	1,197,934.30
2011	135,663.36	1,333,597.66
2012	134,488.01	1,468,085.67
2013	35,920.98	1,504,006.65
2014	93,491.53	1,597,498.18
2015	182,683.88	1,780,182.06
2016	15,550.46	1,795,732.52
2017	12,384.00	1,808,116.52
2019	385,131.78	2,193,248.30

6.4 Framing procurement corruption through DPM: The chart and model findings

Coherently with the conceptual starting point of the DPM modelling approach, the model-building process originates from the main end-result, constituted by the Municipality's debt, and focuses on the typical stages of procurement showed in Chapter 3. The model includes risk performance drivers given by the gap in specific levels of procurement-related performance multiplied by a

corruption risk factor that incorporates a parameter of *structural conditions of corruption* and the *individualistic* probability and weight of specific forms of malfeasances in procurement (Heggstad & Frøystad, 2011: 6-7). In formula:

$$[1] \text{ Risk performance driver } i = (1 - \text{Performance driver } i) * \frac{\text{Corruption risk factor 'x'}}{\text{Maximum score of corruption risk range}}$$

$$[2] \text{ Corruption risk factor 'x'} = \text{Structural Corruption Conditions} * \text{Individualistic probability 'x'} * \text{Weight 'x'}$$

where:

- 'x' = a specific form of corruption event;
- 'i' = the *i-th* performance driver given by the comparison between the actual and the desired value of a particular procurement-related performance measure;
- 'Structural Corruption Conditions' = a normalised stock variable incorporating social, political and cultural factors influencing corruption occurrences;
- 'Maximum score of corruption risk range' = the multiplication between the highest scores of likelihood and weight of the scale used to evaluate the risk of corruption occurrence. It represents the benchmark of the corruption risk factor.

Performance drivers, integrated by a corruption risk component, give an indication of the extent to which the deployment of strategic resources impacting on specific end-results is characterised by gaps between the actual and desired levels of performance that are ascribable to corruption. Notably, as the corruption risk factor gradually reaches the maximum range score, the possible performance gap is likely to be attributable to corruption, and vice versa. In such a way, possible variations of specific outputs and outcomes may be better understood by considering, on the one hand, the individualistic proneness to assume corrupt behaviour along the stages of the procurement process and, on the other hand, context-specific factors shaping the level of structural corruption over time.

To some extent, the logic underlying the equation [2] is similar to that of *probabilistic risk assessment* (PRA) (Stamatelatos, 2000), according to which undesirable consequences – i.e., impacts or weights – of an action, behaviour, activity or process are multiplied by their occurrence likelihoods. Indeed, the concept of risk is here referred to uncertain and negative events, and not even to positive ones. Also, probabilities and weights are quantified through the civil servants' perceptions of corruption being available in the Municipality's TPPCTs – see Appendix B.

In each phase of the procurement process, the corruption risk is the result of intimate decisions of public officials in engaging in corrupt practices or not, after considering the net personal advantage obtainable. Indeed, the way to model risk of corruption within a DPM chart, here proposed, includes economic, legal and cultural aspects underlying such decisions.

Below, the feedback structure of performance related to the case-study is described by, firstly, stressing on the organisational and individualistic factors enabling corruption opportunities along the procurement process and, secondly, on how the process itself contributes to impact on structural conditions favouring corruption, feeding back to the Municipality. That is made coherently with the neo-institutional political-administrative approach that explains individuals' expectations on being involved in corrupt practices as a result of the systemic and dynamic features of their choices – i.e., multiple interactions with other actors over time –, by including moral preferences, economic incentives and social outcomes (Vannucci, 2012: 73).

6.4.1 Post-awarding and awarding phases

In relation to the investigated case, not all the debt plight derived from illegitimate practices (Public Official #2, 2019). Accordingly, the model considers two co-flows of material delays (Sterman, 2000) depicting both *regular* and *non-regular* processes in procurement, based on the relevant intermediate-results. In particular, providers' proposals are processed regularly or irregularly based on the risk degrees of each phase; which, therefore, work as sorting rules between the two kinds of procurement flow. Hence, 'Change in Debt Procurement' depends on how many regular and non-regular tenders are awarded, considering the current 'Procurement Cost'.

The end-results 'Change in Debt Procurement' and 'Awarding of (non)-regular proposals' are identified as outputs of the post-awarding and awarding phases, respectively. ICTs are here considered strategic as they boost organisational transparency and accountability (Klitgaard et al., 2000: 133; Neupane et al., 2014; Pina et al., 2007) and work as deterrent for offences in record management.

With this respect, in the early 2000s, since there was no computerised system in the Municipality and the purchasing procedures in Consip were adopted only a couple of years ago, supplies were bought locally at high costs and there were not rotations of companies in the awarding procedures (Public Official #4, 2019). Albeit it is quite normal in a small municipality with very limited endowment of resources, the overall informative system turned out to be

neglected in the local Government. Coherently with the judgements, it meant the existence of an inadequate ICT endowment that allowed for non-conforming documental arrangements, issuing of orders for payment related to liquidations non-compliant with regular accounting procedures and the use of direct purchasing to favourite specific enterprises in public works.

Therefore, the strategic resource ‘ICT Endowment’, compared to a benchmark represented, for instance, by the endowment of a virtuous municipality with the same characteristics, shapes the second-level performance driver ‘ICT endowment ratio’, which impacts on two risk ratios – i.e., first-level performance drivers – linked to the post-awarding and awarding phases, that is ‘Accounting and record noncompliance risk ratio’ and ‘Selective awarding risk ratio’ – Loops R1 and B1, Figure 6.2 and Table 6.2.

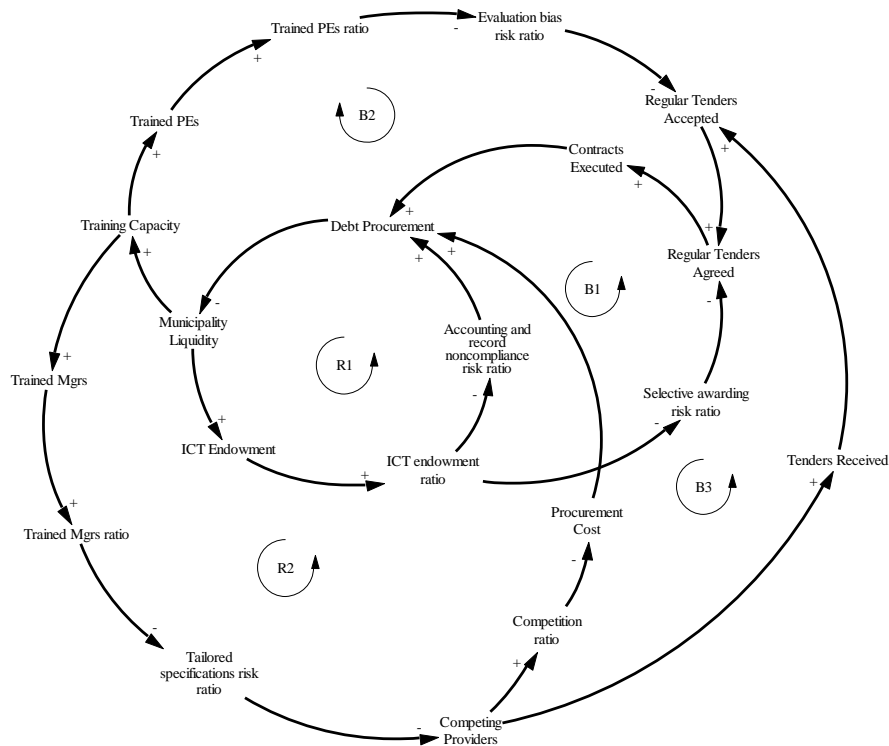







Figure 6.2. The CLD of the causal relationships of corruption along the procurement process. Source: Author’s elaboration.

6.4.2 Evaluation phase

A part of the investigated events disclosed particular behaviours linked to the evaluation phase of procurement. Despite some procedural steps simultaneously belong to multiple stages, for the sake of simplicity, this phase here includes submission, opening, selection and evaluation of tenders.

Table 6.2. Main feedback loops of corruption in the procurement process. Source: Gnoffo (2021a: 84).

Causal loop	Variables involved	Explanation of the loop
	Municipality Liquidity → + ICT Endowment → + ICT endowment ratio → - Accounting and record noncompliance risk ratio → + Debt Procurement → -	Investments in ICTs reduce irregularities in the post-awarding phase and debt procurement, and vice versa.
	Municipality Liquidity → + ICT Endowment → + ICT endowment ratio → - Selective awarding risk ratio → - Regular Tenders Agreed → + Contracts Executed → + Debt Procurement → -	Investment in ICTs counteract the risk of corruption in the awarding phase, increasing the regular contracts executed, and vice versa.
	Municipality Liquidity → + Training Capacity → + Trained PEs → + Trained PEs ratio → - Evaluation bias risk ratio → - Regular Tenders Accepted → + Regular Tenders Agreed → + Contracts Executed → + Debt Procurement → -	Investments in personnel training counteract corruption both in the evaluation phase and in the following steps, and vice versa.
	Municipality Liquidity → + Training Capacity → + Trained Mgrs → + Trained Mgrs ratio → - Tailored specifications risk ratio → - Competing Providers → + Competition ratio → - Procurement Cost → + Debt Procurement → -	Investments in managerial training foster competition and decrease procurement cost, and vice versa (physiological effect of competition).
	Municipality Liquidity → + Training Capacity → + Trained Mgrs → + Trained Mgrs ratio → - Tailored specifications risk ratio → - Competing Providers → + Tenders Received → + Regular Tenders Accepted → + Regular Tenders Agreed → + Contracts Executed → + Debt Procurement → -	Investments in managerial training balance irregularity in pre-tendering and decision-making, fostering competition and counteracting irregularities in the following steps (pathological effect of competition).

The mentioned episodes relate to: lack of certifications of regular execution of works; work procurement and payment proposals for public works attributable to the local Administration, whose requirements were unfounded¹²; legitimisation of provisions related to evident and unfair patrimonial advantages to specific companies and professionals by means of formal documents and acts¹³; unreliable funding certifications for some executive decisions, which implied payments of amounts owed to third parties by the Municipality and, later, resulted in the connected orders for payment resulting as assigned to non-relevant budget chapters¹⁴; non-formalised contractual relationships due to omissions¹⁵.

¹² Cf. Criminal Collegiate Section of the Court of Termini Imerese of 11-05-2012, no. 312/12, procedure no. 891/2009.

¹³ Cf. Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007.

¹⁴ Cf. Criminal Collegiate Section of the Court of Termini Imerese of 11-05-2012, no. 312/12, procedure no. 891/2009.

¹⁵ Cf. Civil Section of the Court of Termini Imerese of 05-06-2013, no. 291/13, procedure no. 581/2009; of 11-06-2014, no. 576/14, procedure no. 580/2009; of 11-06-2014, no. 577/14, procedure no. 1225/2009; of 16-03-2015, no. 253/15, procedure no. 423/2009.

Analogously to the previous phase, the end-result ‘Applying evaluation criteria’ – and, as a result, ‘Bypassing evaluation criteria’ – is influenced by the risk to exclude adequate proposals during the evaluation phase.

The level of personnel’s training and integrity has a considerable significance at this stage as in the overall procurement process in terms of corruption likelihood (Hauser, 2018; Klitgaard et al., 2000; Shick & Weikart, 2009). Accordingly, in applying evaluation criteria, risks of competitive disorders in direct assignments, excess of evaluative discretion of bids and evasion of assignment rules in public tendering through direct purchasing procedures to favourite specific individuals, were influenced by the professionalism level (Public Official #5, 2019) of the Municipality’s public employees (PEs) – i.e., ‘Trained PEs ratio’ –, being a second-level performance driver linked to individualistic causes of corruption. These process weaknesses are measured by the first-level performance driver ‘Evaluation bias risk ratio’ – Loop B2, Figure 6.2 and Table 6.2.

6.4.3 Pre-tendering and decision-making phases

Just like in the evaluation stage, in budget execution, evidence of bureaucratic corruption (Søreide, 2002: 2) can be identified in the pre-tendering and decision-making phases of procurement, which usually involve the assessment of existent needs, the consequential definition of purchase requirements and the choice of the procedure to adopt (Heggstad & Frøystad, 2011: 3).

At this stage, managers (Mgrs.) make decisions on how to spend the resources allocated at political level during the budget preparation. In relation to the case-study, bidding and purchasing procedures suffered from poor competition level as, on the one hand, the lack of procedural transparency created barriers to entry and, on the other hand, there were serious record management issues and poor administrative controls. In particular, the regulation in force during the period when the events occurred required an explorative market sounding involving a variable number of possible tenderers¹⁶, but no track of the claimed ‘informal tenders’ was actually discovered, as no documental evidence existed about them; such that the involved public officials

¹⁶ Cf. Law 2 August 2002, no. 7, published in the Official Journal of the Sicilian Region no. 37 of 10-08-2002.

proceeded into the most complete arbitrariness with the market soundings and provide pre-selected private companies with unfair patrimonial advantages¹⁷.

As it is possible to read from one sentence:

“the resulting scenario, dispiriting in any case, is all too clearly that of a public official that to favour a third part, with whom [he/she] clearly had a relationship, in addition to familiarity, of hanging out [...], abused of [his/her] public office, by violating innumerable regulatory requirements, at the fundamental aim to charge the Municipality of the costs of a project of a single private interest and anyway not recognised as a public interest, so advantaging the private by relieving [him/her] from the related expenditures and allowing the [project] realisation”¹⁸.

Hence, analogously to the evaluation stage, as intermediate-result linked to individualistic causes of corruption at top hierarchical levels, the professionalism degree of Mgrs. – i.e., the second-level performance driver ‘Trained Mgrs. ratio’ – affects the first-level performance driver ‘Tailored specifications risk ratio’, which measures the degree of ‘over-’ or ‘lock-out’ specification in the identification and publicization phase of the needs for goods or services (Klitgaard et al., 2000: 119). This process weakness negatively influences the average number of competing tenderers at the early stage of its process – Loops B3, Figure 6.2 and Table 6.2 – and, as a result, increases the average cost of supplies, thus undermining the financial stability of the Municipality over time.

Comparing the number of suppliers having access to public tendering with the total number of providers within the local area gives rise to the ‘Competition ratio’. This intermediate-result negatively affects ‘Change in Procurement Cost’, such that the higher the cost is, the higher the ‘Debt Procurement’ and the lower the ‘Municipality Liquidity’ will be; and vice versa – see Appendix B. This pattern, in turn, influences decisions on investments in HR training – Loop R2, Figure 6.2 and Table 6.2 –, other than in ICTs, thus increasing or decreasing the gaps of the performance drivers controlling the procurement-related end-results over time.

¹⁷ Cf. Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007; of 11-05-2012, no. 312/12, procedure no. 891/2009.

¹⁸ Cf. Criminal Collegiate Section of the Court of Termini Imerese of 11-05-2012, no. 312/12, procedure no. 891/2009, pp. 41-42.

Figure 6.3 shows the DPM chart of the relationships described above. As it is showed, the strategic resource ‘Civic Morality’ represents the discriminant factor of the regular tenderers’ *individualistic* choice to engage in corruption or to be discarded at the evaluation and awarding stages¹⁹. It is temporarily isolated from the causal relationships, since it is a direct outcome of the procurement process itself and a *structural component of corruption*, as it is argued in the next section.

It emerges how the causal view of DPM and the adoption of adjusted performance drivers allow for better identifying the reasons why red-flags may actually change, but any possible presence of corruption must also be searched for by framing dynamics underlying the *structural conditions of corruption*, which derive from the procurement process.

¹⁹ See the model documentation in Appendix B for further details.

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

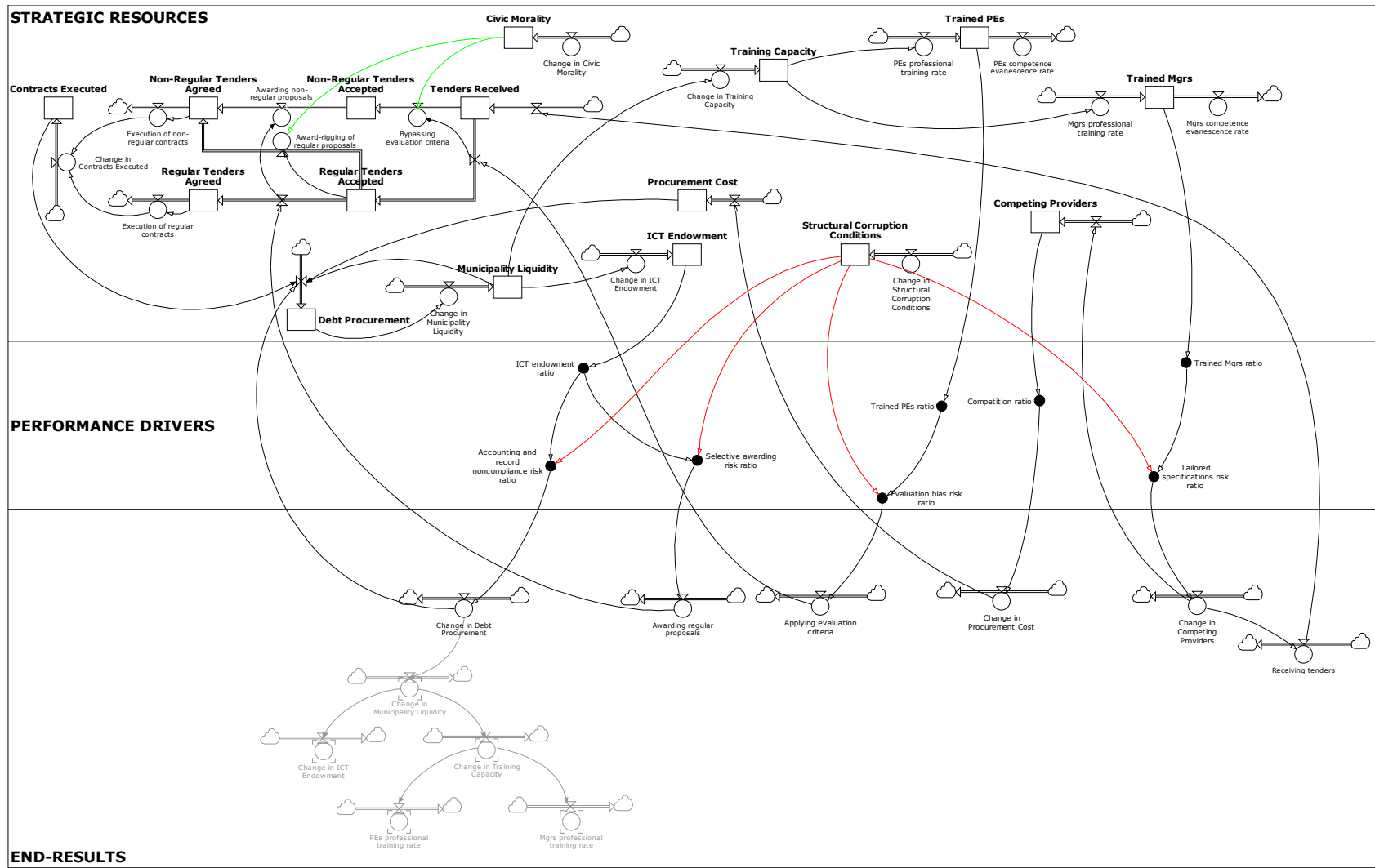


Figure 6.3. A DPM chart of the causal relationships of corruption along the procurement process. Source: Adapted from Gnoffo (2021a: 83).

6.4.4 Outcomes of procurement process on structural conditions allowing for corruption

A set of outcomes stems from the end-results of the procurement process showed in Figure 6.3. More precisely, the mentioned events harmed the public trust, the good performance, the neutrality of the Municipality and its reputation²⁰. In turn, those outcomes may have exacerbated the structural level of corruption and, as a result, the procurement activity itself. This last link can be argued by adapting the Klitgaard and colleagues' (2000: 123) metaphorical formula to conceptualise the stock variable 'Structural Corruption Conditions' as follows:

$$[3] \quad \text{Structural Corruption Conditions} = \text{Personnel Discretion} - \text{Competition ratio} - \\ \text{Municipal Accountability} - \text{Civic Morality}$$

where 'Civic Morality' captures the cultural proneness to accept/adopt or refuse/fight corrupt behaviours in the local environment.

Provided that corrupt behaviour in procurement typically occurs with some degree of misalignment from rules and concealment of its underlined practices, stable dominance of process regularity could have worked as a deterrent of corruption within the local Government. In the model, the degree of organisational compliance, which is measured by the intermediate result 'Regularity ratio', is the result of a path dependence steered by two information sources that are generated by internal routines (Bianchi, 2016: 107) and linked to the, more or less, lasting personnel's tendency to act responsibly and lawfully in procurement, namely the 'Regular' and 'Non-Regular Tenders Reported' – Loops R3, R4 and R5, Figure 6.4 and Table 6.3; Figure 6.5.

In other terms, 'Regularity ratio' is a performance driver that captures the habitual 'way-to-do-things', namely the extent to which both the compliance with procurement-related procedural protocols and administrative law shapes the organisational culture over time, by making civil servants more or less prone to either accept/adopt or refuse/fight wrongdoings and, as a result, reducing/increasing the overall probability for corrupter and corrupt to be caught. Indeed, corrupt practices emerge if the likelihood to be discovered and the sanction are weak, and incentives are attractive (Klitgaard et al., 2000: 31).

At this regard, it is opportune to highlight that 'Accounting and record noncompliance risk ratio' does not indirectly impact on the 'Regularity ratio'. This is because the performance driver

²⁰ Cf. Criminal Collegiate Section of the Court of Termini Imerese of 11-05-2012, no. 312/12, procedure no. 891/2009.

is not strictly referred to the issues of procurement procedures and protocols and does not shape the related organisational routine. Coherently with the case-study, it is, instead, referred to the mentioned lack of compliance with the in-force public accounting rules and the insufficient technological deterrents to wrongdoings in record management, which are relevant at the extent to which they are linked to procurement and impact on the Municipality's solvency degree.

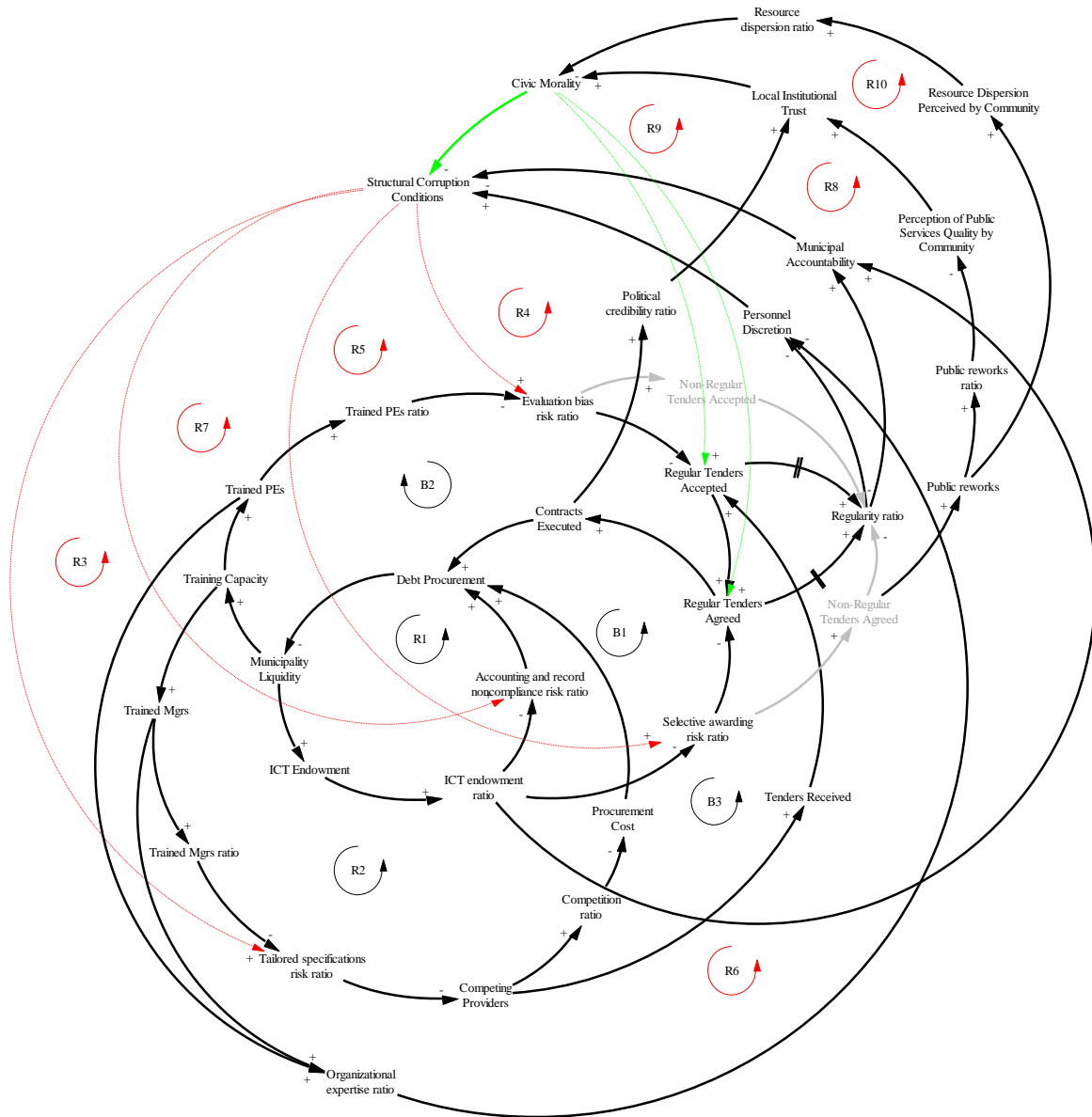










Figure 6.4. The CLD of corruption in the procurement process and the related outcomes. Source: Author's elaboration.

It is also opportune to highlight that, since 'Civic Morality' works as a simple sorting rule at the evaluation and awarding phases, the feedback loops stemming from the dotted-green lines

are not deliberately emphasised in Figure 6.4 and Table 6.3, but only its relationship with the main system outcome, which is represented by ‘Structural Corruption Conditions’. Besides, the effect of ‘Civic Morality’ on the overall system is the same both at structural and individualistic level, and the CLD only shows the fundamental causal relationships of the case at hand. Thus, the most significant feedback loops involving ‘Structural Corruption Conditions’ are here discussed.

Table 6.3. Main feedback loops of corruption outcomes in the procurement process. Source: Gnoffo (2021a: 85).

Causal loop	Variables involved	Explanation of the loop
	Structural Corruption Conditions → + Tailored specifications risk ratio → - Competing Providers → + Tenders Received → + Regular Tenders Accepted → + Regularity ratio → - Personnel Discretion → +	Structural proneness to corruption positively influences individual causes of wrongdoings in the pre-tendering and decision-making phase, thus negatively impacting on the regularity of organizational routines, which positively affecting the personnel’s discretion.
	Structural Corruption Conditions → + Evaluation bias risk ratio → - Regular Tenders Accepted → + Regularity ratio → - Personnel Discretion → +	Structural proneness to corruption positively influences individual causes of wrongdoings in the evaluation phase, thus negatively impacting on the regularity of organizational routines, which positively affecting the personnel’s discretion.
	Structural Corruption Conditions → + Selective awarding risk ratio → - Regular Tenders Agreed → + Regularity ratio → + Municipal Accountability → -	Structural conditions allowing for corruption positively affect the individual risk of corruption in the awarding phase, thus negatively impacting on the regularity of organization’s routines and accountability.
	Structural Corruption Conditions → + Accounting and record noncompliance risk ratio → + Debt Procurement → - Municipality Liquidity → + Training Capacity → + Trained Mgrs & Trained PEs → + Organizational expertise ratio → - Personnel Discretion → +	Structural corruption negatively affects the Municipality’s expenditure capacity for the managers’ and staff’s training, which positively influences the organizational synergies of expertise and integrity – i.e., subjective deterrent of corruption –, thus negatively impacting on the personnel’s discretion.
	Structural Corruption Conditions → + Accounting and record noncompliance risk ratio → + Debt Procurement → - Municipality Liquidity → + ICT Endowment → + ICT endowment ratio → + Municipal Accountability → -	Structural corruption negatively affects the Municipality’s ICT endowment – i.e., objective deterrent of corruption –, which positively influences the Municipality’s accountability.
	Structural Corruption Conditions → + ... Procurement process ... → + Public Reworks → + Public reworks ratio → - Perception of Public Services Quality by Community → + Local Institutional Trust → + Civic Morality → -	Structural corruption, through the procurement process, positively affects public reworks that negatively impacts on the perception of service quality by the community and trust in the local government, which positively influence civic morality.
	Structural Corruption Conditions → - ... Procurement process ... → + Contract Executed → + Political credibility ratio → + Local Institutional Trust → + Civic Morality → -	Structural corruption, through the procurement process, negatively influences the number of contracts executed, the political credibility in designing and implementing public interventions, trust in local government and, as a result, the civic morality.
	Structural Corruption Conditions → + ... Procurement process ... → + Public Reworks → + Resource Dispersion Perceived by Community → + Resource dispersion ratio → - Civic Morality → -	Structural corruption conditions, through the procurement process, positively affects public reworks and the resulting resource dispersion, which provokes inefficiencies that negatively affects civic morality.

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

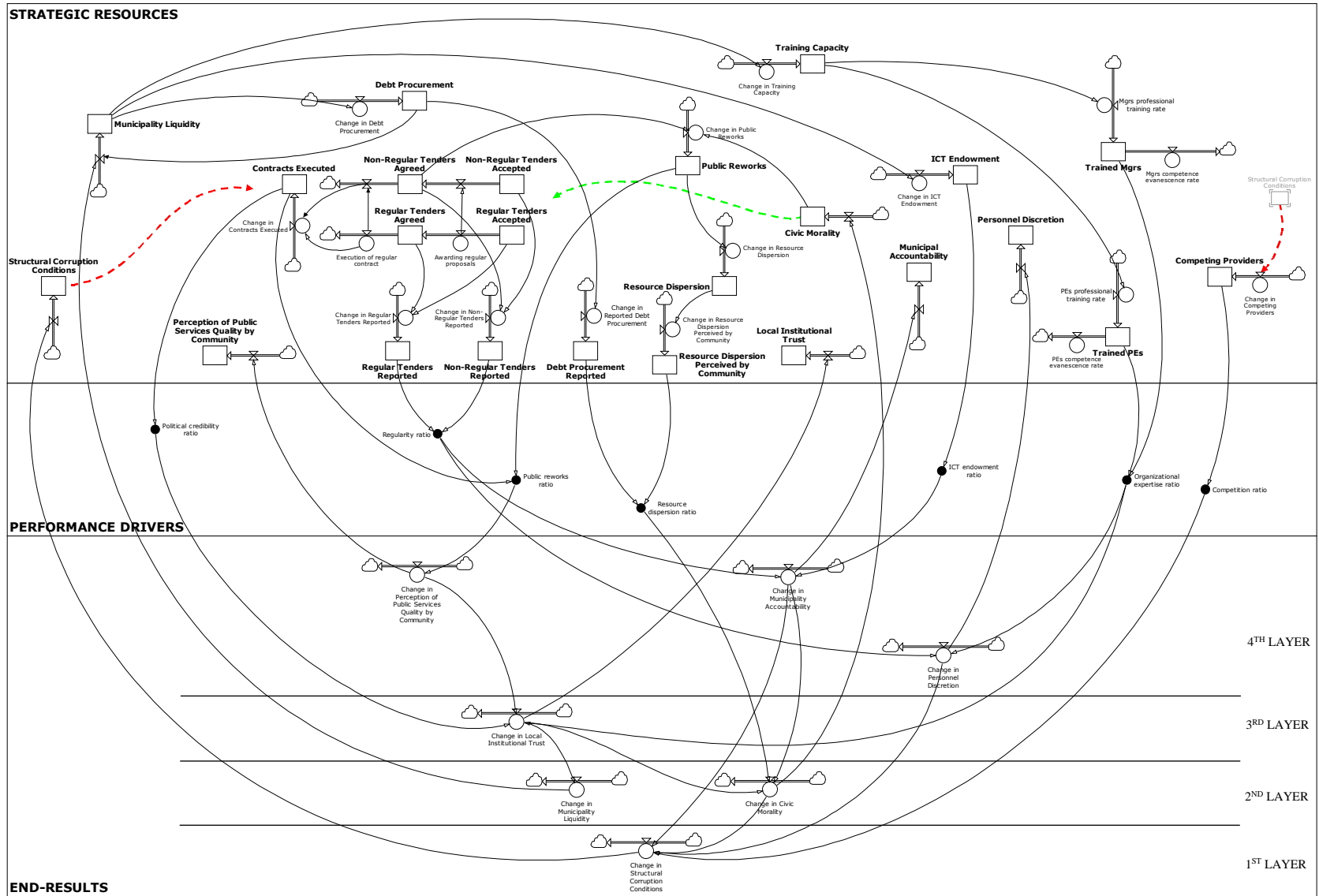


Figure 6.5. A DPM chart of the causal relationships underlying the procurement outcomes linked to corruption. Source: Adapted from Gnoffo (2021a: 86).

As a first stock variable affecting the structural corruption at local level, ‘Personnel Discretion’ involves risk of corrupt practices in the event of poor decision-making transparency or when decisions are made by one or a few people, especially in presence of consolidated, unethical and blurred relationships (Heggstad & Frøystad, 2011: 14).

Based on that, organisational synergies stemming from civil servants’ expertise and integrity, measured by the ‘Organizational expertise ratio’, constitute a *subjective deterrent* of structural corruption, as they: hinder non-legitimate discretion; boost involvement and internal watchdogging in both formal and informal decision-making processes; and enable civil servants to recognise blurred wrongdoings for private gain in decision-making – Loop R6, Figure 6.4 and Table 6.3; 4th layer, Figure 6.5. At this regard, the Municipality has never budgeted training programmes, as it is also certified by the ISTAT (2020b) and SIOPE (2020) databases, and this implied the lower staff’s capability to recognise and willingness to report possible malfeasances in decision-making, thus missing to counteract the general connivance with some inadequate practices (Public Official #4, 2019).

The same can be stated in terms of expenditure in ICTs – and, as a result, the ‘ICT endowment ratio’ –, as *objective deterrent* of structural corruption that positively impacts on the public scrutiny degree of the local government action, therefore promoting a greater public accountability – Loop R7, Figure 6.4 and Table 6.3; 4th layer, Figure 6.5. Indeed, transparency is a condition of accountability (Bauhr & Grimes, 2014: 291), which is intended as an obligation to present account of and answer for the accomplishments of its duties to the community (Gray & Jenkins, 1986; Kluvers, 2003: 58).

In the local area of Cerda, public service disruptions have occurred, because of several infrastructural problems, such as potholes, devastated country roads, interruptions in communal water supply and garbage collection (Public Official #1, 2019; Public Official #4, 2019; Public Official #5, 2019). This has led towards a disconnection between the Municipality and its local stakeholders (Public Official #3, 2019) due to their consequential perception of public service quality – which is a component of the overall government effectiveness (World Bank, 2019b) – that has been negatively influenced by repeated reworks in public interventions (Public Official #4, 2019) – Loop R8, Figure 6.4 and Table 6.3; 4th layer, Figure 6.5.

Based on what above, ‘Public reworks ratio’ is a production quality conformity driver (Bianchi, 2016: 77) that directly depends on the overall procurement process. The consequential

perception of service quality by users have played a significant role in influencing the general trust in the local Government – Loop R8, Figure 6.4 and Table 6.3; 3rd layer, Figure 6.5.

Trust can be either diffuse (March & Olsen, 1989) or specific (Easton, 1965). The former is linked to the general belief that pursuing collective interests and aims matters, while the latter can be divided into process-related and output-related: if, on the one hand, the output-related trust depends on what is obtained by recipients, regardless of the process, on the other hand, the process-related trust independently grows from the output, but outcomes matter (Christensen & Lægheid, 2005). At this regard, stakeholders have a specific confidence in the impartiality of the public processes, which strongly affects their willingness to accept its outcomes (Letki, 2006; Lind & Tyler, 1988; Murphy, 2004; Tyler, 2006).

Accordingly, the actual number of realised public interventions out of the budgeted ones is here considered as a common political lever – and a performance driver as well – to gain public consensus (Public Official #3, 2019), by guaranteeing organisational outputs to the served community. More precisely, ‘Political credibility ratio’ – Loop R9, Figure 6.4 and Table 6.3; 3rd layer, Figure 6.5 – measures the politicians’ capability to design and implement relevant public policies able to provide the community with demanded services, as a fundamental component of the overall government effectiveness (Kaufmann, Kraay, & Mastruzzi, 2010).

In turn, poor citizens’ trust in the Municipality – modelled with the stock variable ‘Local Institutional Trust’ – may have reduced taxpayers’ propensity to comply with their fiscal obligations, thus exacerbating the overall local tax avoidance (Murphy, 2004) – 2nd layer, Figure 6.5 – and further making worse the structural Municipality’s insolvency status.

Overall, this indicates that procurement outputs and outcomes have, therefore, an intrinsic content of institutional legitimacy, which is intended the psychological feature of a government to be perceived as befitting by who establish some kind of relationship with it (Tyler, 2006: 375).

Agreeing with irregular contracts does not automatically mean that public works are badly executed, since successful public interventions strongly depend on the providers’ consciousness of the public duty which they are called for. Hence, provided that civic morality and truthfulness become visible within communities as their institutions are more *transparent, efficient* and *stable* (Letki, 2006: 321), in conjunction with ‘Change in Municipal Accountability’ and ‘Resource dispersion ratio’ – Loop R10, Figure 6.4 and Table 6.3 –, ‘Change in Local Institutional Trust’ affects ‘Change in Civic Morality’ of the local area – 2nd layer, Figure 6.5.

Finally, by including ‘Competition ratio’, ‘Personnel Discretion’, ‘Municipal Accountability’ and ‘Civic Morality’ together impact on ‘Change in Structural Corruption Conditions’ – 1st layer, Figure 6.5 –, which feeds back to the procurement process as component of each of the corruption risk performance drivers – Figures 6.3, 6.4 and 6.5; equation [2] –, thus impacting on the financial condition of the public Body.

Table 6.4 shows the described performance drivers and their individualistic or structural dimension, based on whether they are related to individual/group choices or to cultural, political, historical and other factors characterising the system. Moreover, the kind of measure, either preventive or repressive, they are generally related to is also emphasised, even though they contemporary support both diagnostical and interactive management control. However, they may further be detailed and tailored based on specific information objectives and data availability.

Table 6.4. Performance drivers linked to corruption in public procurement. Source: Gnoffo (2021a: 88).

Performance driver	Type	Measure	Ideal equation
Trained Mgrs. ratio	Individualistic	Preventive	Trained Mgrs / High-specialized public positions
Tailored specifications risk ratio	Individualistic	Repressive	$(1 - \text{Trained Mgrs. ratio}) * (\text{Structural Corruption Conditions} * \text{Corruption probability in the pre-tendering and decision-making phase} * \text{Weight of corruption in pre-tendering and decision-making phase}) / \text{Maximum score of corruption risk range}$
Trained PEs ratio	Individualistic	Preventive	Trained PEs / Low- and medium-specialized public positions
Evaluation bias risk ratio	Individualistic	Repressive	$(1 - \text{Trained PEs ratio}) * (\text{Structural Corruption Conditions} * \text{Corruption probability in the evaluation phase} * \text{Weight of corruption in the evaluation phase}) / \text{Maximum score of corruption risk range}$
ICT endowment ratio	Structural	Preventive	ICT Endowment / Normal ICT endowment
Selective awarding risk ratio	Individualistic	Repressive	$(1 - \text{ICT endowment ratio}) * (\text{Structural Corruption Conditions} * \text{Corruption probability in the awarding phase} * \text{Weight of corruption in the awarding phase}) / \text{Maximum score of corruption risk range}$
Accounting and record noncompliance risk ratio	Individualistic	Repressive	$(1 - \text{ICT endowment ratio}) * (\text{Structural Corruption Conditions} * \text{Corruption probability in the post-awarding phase} * \text{Weight of corruption in the post-awarding phase}) / \text{Maximum score of corruption risk range}$
Competition ratio	Structural	Preventive	Competing Providers / Total number of local providers
Public reworks ratio	Structural	Repressive	Public Reworks / Contracts Executed
Political credibility ratio	Structural	Preventive	Contracts Executed / Public interventions requirement
Resource dispersion ratio	Structural	Repressive	Resource Dispersion Perceived by Community / Reported Debt Procurement
Organizational expertise ratio	Structural	Preventive	$(\text{Trained PEs} + \text{Trained Mgrs}) / (\text{High-specialized public positions} + \text{Low- and medium-specialized public positions})$
Regularity ratio	Structural	Preventive	$\text{Regular Tenders Reported} / (\text{Regular Tenders Reported} + \text{Non-Regular Tenders Reported})$

6.5 Probing the cumulative impacts of corruption risks through model simulation

The SFD of the dynamic hypotheses outlined above is showed in Figure 6.6. The model is divided into four sectors: *corruption risk sector*; *procurement process sector*; *outcomes sector*; *accounting sector*. The related equations and documentation are exhibited in the Appendix B.

In order to probe the impact over time of the identified risk performance drivers on the problem at hand, four model simulations are here carried out by cumulatively activating, step by step, probabilities and weights of each form of corruption along the procurement process. More precisely, four experiments are performed with the following conditions:

- probability and weight of corruption risk in the 1st phase enabled and zero probability and weight in the other phases;
- probability and weight in the 1st and 2nd phase enabled and zero probability and weight in the 3rd and 4th phase;
- probability and weight in the 1st, 2nd and 3rd phase enabled and zero probability and weight in the 4th phase;
- probability and weight enabled in all the phases – i.e., the basic run.

The model is based on some assumptions, the most important of which are:

- the execution of regular proposals is always assumed effective and efficient;
- coherently with the case at hand, procurement is mainly referred to professional assignments, in order to guarantee model consistency;
- proposals are all of the same quality and valued at the same average price;
- the procurement cost increases when competition is low, and vice versa;
- the risk ratios of the first-level performance drivers are assumed to be exogenous to the model, as they refer to likelihoods and weights that depend on the normal individualistic proneness to engage in corrupt practices and the related impacts on the investigated system, according to the Municipality's TPPCTs available in its institutional website;
- for the sake of simplicity, the stock variable 'Local Institutional Trust' – i.e., trust in the local Government – is here assumed as a proxy measure of the government stability, by virtue of the fact that citizens have faith on the Municipality at the extent to which it is able to deliver a good administration, and this requires a local government being able to recover from possible executive and political crises.

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

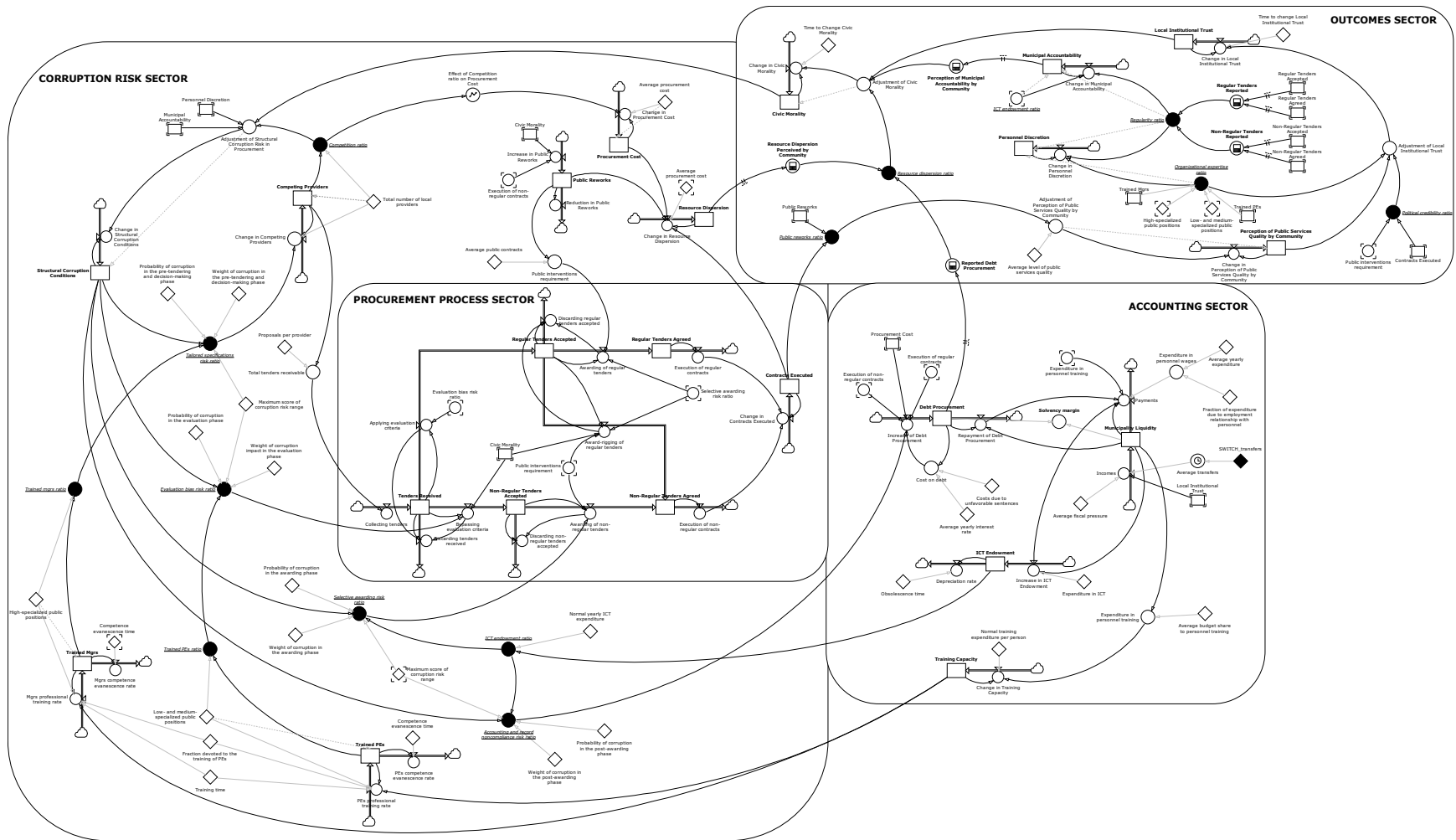


Figure 6.6. The SFD of corruption along the procurement process and the related outcomes. Source: Author's elaboration.

6.5.1 Experiment 1: Enabling risk of corruption at the pre-tendering stage

Assuming presence of corruption in the pre-tendering and decision-making phase only, the ‘Tailored specifications risk ratio’ is enabled and the other risk performance drivers are deactivated. The most significant effect is the moderate increase in the ‘Procurement Cost’ because of a lower competition. The firms having had access to the procurement process win all the budgeted assignments. There are not ‘Public Reworks’, since all the agreed contracts are evaluated according to correct criteria and awarded regularly. Finally, there is no room for wrongdoings in the post-awarding stage. Therefore, ‘Resource dispersion’ just depends on the difference between the higher ‘Procurement Cost’ and its average level. It follows that the ‘Regularity ratio’, the quality of public services and the ‘Political credibility ratio’ are satisfying for citizens.

‘Resource dispersion ratio’ results low as the waste related to the higher ‘Procurement Cost’ is perceived small compared to the ‘Debt Procurement’, which actually grows due to unfair supply prices. At this regard, Lambsdorff (2001a: 6) states that people may perceive low levels of corruption by comparing its outcomes to other more pressing problems. It may also be so in the case where there are not particular issues and a local administration works successfully. Accordingly, especially if the public services quality and political credibility satisfy the citizens’ expectations, stakeholders may even justify the resource dispersion by virtue of the incremental budgeting practice, which is typical of highly-bureaucratized contexts. In other terms, the echo of the inefficiencies caused by corruption is weak to awaken the community stakeholders about possible public corruption and overshadows the unsustainability of such governance mechanisms.

Therefore, the satisfying ‘Local Institutional Trust’, which is only undermined by a low level of ‘Organizational expertise ratio’ due to lack of relevant investments, and the acceptable ‘Resource dispersion’ by community may have guaranteed a level of ‘Civic Morality’ able to reduce structural corruption in the local area, even in presence of high ‘Personnel Discretion’ – stemming from low organisational expertise – and poor accountability.

The simulation results of the first experiment are showed in Table 6.5 and Table 6.6, which are respectively related to the main stocks and performance drivers. In order to avoid information redundancies, the behaviour of ‘Trained Mgrs.’, ‘Trained PEs’, ‘Training Capacity’, ‘ICT Endowment’ and ‘Competing Providers’ can be deducted through the related performance drivers ‘Trained Mgrs. ratio’, ‘Trained PEs ratio’, ‘ICT endowment ratio’ and ‘Competition ratio’, respectively.

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

Table 6.5. Experiment no. 1: the values of the main stocks. Period 1990-2020.

	Tenders Received	Regular Tenders Accepted	Non-Regular Tenders Accepted	Regular Tenders Agreed	Non-Regular Tenders Agreed	Contracts Executed	Public Reworks	Procurement Cost	Resource Dispersion	Debt Procurement	Municipality Liquidity	Perception of Public Services Quality by Community	Local Institutional Trust	Personnel Discretion	Municipal Accountability	Civic Morality	Structural Corruption Conditions
year	tender							EUR/tender	EUR			dimensionless					
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	17,000.0000	0.0000	1.0000	1.0000	6.0000	0.3150	0.5000	0.1000	0.4717	0.4821
1	106.8115	41.5552	0.3164	8.8711	0.3164	2.0273	0.2227	17,007.9319	1,895.2979	30,533.4468	2,035,260.3564	5.5137	0.3996	0.4924	0.1119	0.4736	0.4823
2	139.4206	98.7521	0.1001	50.7452	0.1001	18.8961	0.1406	17,057.8623	2,973.8404	336,038.9689	2,732,514.9839	5.6810	0.4400	0.4339	0.1721	0.4772	0.4701
3	148.6668	130.1941	0.0317	84.3394	0.0317	53.4867	0.0664	17,132.0429	4,439.1743	993,377.7155	2,991,965.2283	5.8848	0.4920	0.3932	0.2035	0.4870	0.4500
4	150.6372	143.6624	0.0100	95.0763	0.0100	78.7042	0.0278	17,207.5597	9,655.8808	1,524,579.3516	3,129,235.4216	5.9606	0.5588	0.3728	0.2203	0.5015	0.4338
5	150.4518	148.4326	0.0032	98.4549	0.0032	91.1950	0.0109	17,275.5216	17,310.3590	1,824,575.4571	3,230,771.5879	5.9866	0.6164	0.3684	0.2316	0.5187	0.4228
6	149.6935	149.5869	0.0010	99.5160	0.0010	96.5659	0.0041	17,335.1506	25,119.2394	1,974,729.2305	3,307,222.6029	5.9955	0.6548	0.3758	0.2407	0.5367	0.4158
7	148.8281	149.3867	0.0003	99.8487	0.0003	98.7106	0.0015	17,388.0956	32,047.2912	2,046,731.1960	3,358,296.2732	5.9984	0.6752	0.3919	0.2487	0.5538	0.4122
8	147.9793	148.7341	0.0001	99.9528	0.0001	99.5286	0.0005	17,436.1746	37,992.5555	2,081,593.1427	3,387,041.1391	5.9995	0.6825	0.4140	0.2560	0.5691	0.4111
9	147.1704	147.9598	0.0000	99.9853	0.0000	99.8311	0.0002	17,480.8289	43,176.9127	2,099,625.2869	3,398,961.6393	5.9998	0.6816	0.4402	0.2628	0.5821	0.4121
10	146.3982	147.1739	0.0000	99.9954	0.0000	99.9404	0.0001	17,523.0881	47,844.1046	2,110,207.2507	3,399,611.7500	5.9999	0.6758	0.4689	0.2691	0.5927	0.4148
11	145.6552	146.4070	0.0000	99.9986	0.0000	99.9792	0.0000	17,563.6322	52,174.2101	2,117,508.6782	3,393,418.2606	6.0000	0.6676	0.4990	0.2750	0.6013	0.4188
12	144.9356	145.6641	0.0000	99.9996	0.0000	99.9928	0.0000	17,602.8621	56,281.0839	2,123,344.0352	3,383,485.6604	6.0000	0.6583	0.5295	0.2806	0.6080	0.4237
13	144.2363	144.9436	0.0000	99.9999	0.0000	99.9975	0.0000	17,640.9675	60,229.2664	2,128,492.4715	3,371,820.7572	6.0000	0.6488	0.5598	0.2857	0.6131	0.4293
14	143.5569	144.2439	0.0000	100.0000	0.0000	99.9992	0.0000	17,677.9912	64,050.4067	2,133,283.3302	3,359,644.6536	6.0000	0.6396	0.5895	0.2906	0.6169	0.4353
15	142.8981	143.5645	0.0000	100.0000	0.0000	99.9997	0.0000	17,713.8836	67,755.4839	2,137,850.6198	3,347,660.4137	6.0000	0.6309	0.6180	0.2951	0.6196	0.4416
16	142.2620	142.9063	0.0000	100.0000	0.0000	99.9999	0.0000	17,748.5472	71,343.3165	2,142,243.1702	3,336,246.8620	6.0000	0.6229	0.6453	0.2993	0.6215	0.4479
17	141.6504	142.2708	0.0000	100.0000	0.0000	100.0000	0.0000	17,781.8679	74,806.3603	2,146,472.8582	3,325,587.3070	6.0000	0.6154	0.6712	0.3032	0.6227	0.4541
18	141.0655	141.6600	0.0000	100.0000	0.0000	100.0000	0.0000	17,813.7369	78,134.5681	2,150,536.2407	3,315,750.8261	6.0000	0.6086	0.6956	0.3069	0.6234	0.4602
19	140.5090	141.0758	0.0000	100.0000	0.0000	100.0000	0.0000	17,868.4669	81,623.2716	2,154,732.1391	3,306,741.9584	6.0000	0.6024	0.7184	0.3104	0.6237	0.4661
20	139.9819	140.5197	0.0000	100.0000	0.0000	100.0000	0.0000	17,979.1346	88,525.9462	2,162,515.9459	3,298,530.3982	6.0000	0.5968	0.7397	0.3136	0.6237	0.4717
21	139.4852	139.9931	0.0000	100.0000	0.0000	100.0000	0.0000	18,104.0529	98,876.3764	2,174,307.4358	2,607,474.6642	6.0000	0.5917	0.7594	0.3166	0.6235	0.4769
22	139.0189	139.4965	0.0000	100.0000	0.0000	100.0000	0.0000	18,227.7852	110,700.2574	2,188,116.0558	2,384,413.7978	6.0000	0.5871	0.7777	0.3194	0.6229	0.4819
23	138.5827	139.0302	0.0000	100.0000	0.0000	100.0000	0.0000	18,345.5761	122,725.4898	2,202,447.1378	2,309,847.2903	6.0000	0.5830	0.7945	0.3221	0.6221	0.4866
24	138.1757	138.5938	0.0000	100.0000	0.0000	100.0000	0.0000	18,456.1370	134,356.6168	2,216,497.7027	2,282,645.6464	6.0000	0.5792	0.8101	0.3246	0.6210	0.4911
25	137.7966	138.1864	0.0000	100.0000	0.0000	100.0000	0.0000	18,559.3072	145,360.2336	2,229,900.0279	2,270,775.8194	6.0000	0.5758	0.8243	0.3269	0.6198	0.4952
26	137.4442	137.8069	0.0000	100.0000	0.0000	100.0000	0.0000	18,655.2789	155,665.1363	2,242,510.7811	2,264,070.0290	6.0000	0.5727	0.8374	0.3290	0.6185	0.4991
27	137.1173	137.4540	0.0000	100.0000	0.0000	100.0000	0.0000	18,744.3427	165,265.8183	2,254,291.2342	2,259,281.5301	6.0000	0.5699	0.8494	0.3310	0.6170	0.5027
28	136.8145	137.1266	0.0000	100.0000	0.0000	100.0000	0.0000	18,826.8117	174,181.3141	2,267,509.9499	2,255,356.0612	6.0000	0.5674	0.8603	0.3329	0.6156	0.5060
29	136.5349	136.8234	0.0000	100.0000	0.0000	100.0000	0.0000	18,903.0042	182,439.2454	2,293,981.5184	2,251,935.5415	6.0000	0.5651	0.8703	0.3347	0.6142	0.5091
30	136.2770	136.5433	0.0000	100.0000	0.0000	100.0000	0.0000	18,973.2417	190,070.2246	2,336,750.4841	2,248,884.4491	6.0000	0.5630	0.8795	0.3363	0.6128	0.5119

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

Table 6.6. Experiment no. 1: the values of the performance drivers. Period 1990-2020.

	Trained mgrs ratio	Tailored specifications risk ratio	Trained PEs ratio	Evaluation bias risk ratio	ICT endowment ratio	Selective awarding risk ratio	Accounting and record noncompliance risk ratio	Competition ratio	Public reworks ratio	Resource dispersion ratio	Organizational expertise ratio	Regularity ratio	Political credibility ratio
year	dimensionless												
0	1.0000	0.0000	1.0000	0.0000	0.2000	0.0000	0.0000	1.0000	0.0000	0.0000	1.0000	0.5000	0.0100
1	0.9215	0.0144	0.9047	0.0000	0.2047	0.0000	0.0000	0.9950	0.1099	0.0506	0.9055	0.8765	0.0202
2	0.8599	0.0251	0.8190	0.0000	0.2148	0.0000	0.0000	0.9850	0.0074	0.0206	0.8211	0.9895	0.1887
3	0.8057	0.0333	0.7417	0.0000	0.2242	0.0000	0.0000	0.9754	0.0012	0.0063	0.7449	0.9979	0.5345
4	0.7571	0.0402	0.6718	0.0000	0.2331	0.0000	0.0000	0.9672	0.0004	0.0053	0.6762	0.9994	0.7868
5	0.7135	0.0462	0.6087	0.0000	0.2413	0.0000	0.0000	0.9602	0.0001	0.0073	0.6140	0.9998	0.9119
6	0.6740	0.0517	0.5516	0.0000	0.2490	0.0000	0.0000	0.9541	0.0000	0.0100	0.5579	0.9999	0.9656
7	0.6384	0.0568	0.5001	0.0000	0.2563	0.0000	0.0000	0.9485	0.0000	0.0129	0.5072	1.0000	0.9871
8	0.6062	0.0617	0.4535	0.0000	0.2630	0.0000	0.0000	0.9433	0.0000	0.0157	0.4613	1.0000	0.9953
9	0.5771	0.0664	0.4114	0.0000	0.2693	0.0000	0.0000	0.9384	0.0000	0.0182	0.4199	1.0000	0.9983
10	0.5508	0.0710	0.3734	0.0000	0.2752	0.0000	0.0000	0.9336	0.0000	0.0205	0.3825	1.0000	0.9994
11	0.5271	0.0755	0.3390	0.0000	0.2807	0.0000	0.0000	0.9290	0.0000	0.0226	0.3486	1.0000	0.9998
12	0.5056	0.0799	0.3079	0.0000	0.2859	0.0000	0.0000	0.9245	0.0000	0.0246	0.3181	1.0000	0.9999
13	0.4862	0.0841	0.2799	0.0000	0.2907	0.0000	0.0000	0.9202	0.0000	0.0265	0.2904	1.0000	1.0000
14	0.4687	0.0882	0.2545	0.0000	0.2952	0.0000	0.0000	0.9160	0.0000	0.0283	0.2655	1.0000	1.0000
15	0.4528	0.0921	0.2316	0.0000	0.2994	0.0000	0.0000	0.9119	0.0000	0.0300	0.2429	1.0000	1.0000
16	0.4385	0.0959	0.2108	0.0000	0.3033	0.0000	0.0000	0.9080	0.0000	0.0317	0.2225	1.0000	1.0000
17	0.4256	0.0994	0.1921	0.0000	0.3070	0.0000	0.0000	0.9042	0.0000	0.0333	0.2041	1.0000	1.0000
18	0.4139	0.1028	0.1752	0.0000	0.3105	0.0000	0.0000	0.9006	0.0000	0.0348	0.1874	1.0000	1.0000
19	0.4033	0.1060	0.1599	0.0000	0.3137	0.0000	0.0000	0.8972	0.0000	0.0363	0.1724	1.0000	1.0000
20	0.3938	0.1090	0.1461	0.0000	0.3167	0.0000	0.0000	0.8941	0.0000	0.0382	0.1588	1.0000	1.0000
21	0.3851	0.1118	0.1336	0.0000	0.3195	0.0000	0.0000	0.8911	0.0000	0.0415	0.1465	1.0000	1.0000
22	0.3773	0.1144	0.1223	0.0000	0.3222	0.0000	0.0000	0.8883	0.0000	0.0458	0.1354	1.0000	1.0000
23	0.3703	0.1168	0.1121	0.0000	0.3246	0.0000	0.0000	0.8857	0.0000	0.0507	0.1254	1.0000	1.0000
24	0.3639	0.1191	0.1029	0.0000	0.3269	0.0000	0.0000	0.8832	0.0000	0.0557	0.1163	1.0000	1.0000
25	0.3582	0.1212	0.0946	0.0000	0.3291	0.0000	0.0000	0.8810	0.0000	0.0606	0.1081	1.0000	1.0000
26	0.3530	0.1231	0.0871	0.0000	0.3311	0.0000	0.0000	0.8789	0.0000	0.0651	0.1007	1.0000	1.0000
27	0.3483	0.1249	0.0803	0.0000	0.3330	0.0000	0.0000	0.8770	0.0000	0.0693	0.0940	1.0000	1.0000
28	0.3440	0.1265	0.0741	0.0000	0.3347	0.0000	0.0000	0.8752	0.0000	0.0732	0.0879	1.0000	1.0000
29	0.3402	0.1280	0.0686	0.0000	0.3364	0.0000	0.0000	0.8735	0.0000	0.0766	0.0825	1.0000	1.0000
30	0.3367	0.1294	0.0635	0.0000	0.3379	0.0000	0.0000	0.8720	0.0000	0.0792	0.0775	1.0000	1.0000

6.5.2 Experiment 2: Enabling risk of corruption at the pre-tendering and evaluation stages

The ‘Tailored specifications risk ratio’ and ‘Evaluation bias risk ratio’ are the only first-level performance drivers enabled. It means that, as in the previous stage, ‘Procurement Cost’ increases due to a moderately lower competition and, in addition, submitted tenders can be both regular and non-regular, according to the system level of ‘Civic Morality’. Indeed, tenderers may not accept to corrupt or to be corrupted in order to continue towards the awarding phase if the alternative is to be thrown out from the process. However, the ‘Selective awarding risk ratio’ is null, which means that bids being not in line with procurement requirements and bypassing evaluation criteria cannot be awarded, thus being discarded.

By virtue of low entry barriers and a moderate level of noncompliance with evaluation criteria, the number of ‘Competing Providers’ is such that all the planned contracts are executed and regular, which also implies absence of ‘Public Reworks. This situation still depicts the capability of the Municipality to carry all the budgeted public interventions out, thus keeping ‘Political credibility ratio’ and, as a result, the ‘Local Institutional Trust’ satisfying for citizens. Also, as in the previous stage, ‘Resource dispersion ratio’ is low, since the waste related to the higher ‘Procurement Cost’ is perceived small compared to the ‘Debt Procurement’ by citizens.

In comparison to the previous experiment, ‘Organizational expertise ratio’ and ‘ICT endowment ratio’ do not vary, but the main difference is that, seeing as corruption also occurs in the evaluation stage, ‘Regularity ratio’ – i.e., the measure of the quality of organisational routines – is impoverished, thus exacerbating governance mechanisms, increasing the ‘Personnel Discretion’ and reducing the ‘Municipal Accountability’. The latter negatively affects ‘Civic Morality’, which boosts structural corruption together with slightly lower ‘Competition ratio’ and higher ‘Personnel Discretion’ than the previous phase. This process, finally, impacts on ‘Tailored specifications risk ratio’ and ‘Evaluation bias risk ratio’ themselves over time.

Tables 6.7 and 6.8 show the simulation results.

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

Table 6.7. Experiment no. 2: the values of the main stocks. Period 1990-2020.

	Tenders Received	Regular Tenders Accepted	Non-Regular Tenders Accepted	Regular Tenders Agreed	Non-Regular Tenders Agreed	Contracts Executed	Public Reworks	Procurement Cost	Resource Dispersion	Debt Procurement	Municipality Liquidity	Perception of Public Services Quality by Community	Local Institutional Trust	Personnel Discretion	Municipal Accountability	Civic Morality	Structural Corruption Conditions
year	tender							EUR/tender	EUR			dimensionless					
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	17,000.0000	0.0000	1.0000	1.0000	6.0000	0.3150	0.5000	0.1000	0.4717	0.4821
1	106.8115	41.0812	0.5664	8.8114	0.3164	2.0243	0.2227	17,007.9319	1,895.2979	30,481.6251	2,035,260.3564	5.5137	0.3996	0.4925	0.1118	0.4736	0.4823
2	139.4205	96.3119	1.3818	49.8415	0.1001	18.6568	0.1406	17,057.8633	2,972.2121	331,830.4857	2,732,501.5696	5.6802	0.4399	0.4347	0.1713	0.4772	0.4702
3	148.6663	125.3808	2.5324	83.7961	0.0317	52.7724	0.0664	17,132.0711	4,402.1168	979,952.0797	2,991,654.3095	5.8844	0.4913	0.3950	0.2020	0.4870	0.4504
4	150.6345	136.7608	3.5251	94.9044	0.0100	78.2490	0.0278	17,207.7045	9,578.8410	1,514,977.2180	3,128,149.0925	5.9604	0.5575	0.3758	0.2181	0.5013	0.4347
5	150.4445	139.8033	4.2771	98.4005	0.0032	90.9785	0.0109	17,275.9202	17,246.7587	1,819,426.1076	3,229,231.5989	5.9866	0.6152	0.3724	0.2287	0.5184	0.4241
6	149.6787	139.4972	4.8324	99.4988	0.0010	96.4744	0.0041	17,335.9561	25,105.2391	1,972,297.4188	3,305,723.5169	5.9954	0.6539	0.3809	0.2370	0.5362	0.4177
7	148.8032	138.0125	5.2514	99.8432	0.0003	98.6744	0.0015	17,389.4538	32,097.9605	2,045,706.1587	3,357,094.0936	5.9984	0.6746	0.3978	0.2443	0.5532	0.4145
8	147.9421	136.1896	5.5846	99.9511	0.0001	99.5149	0.0005	17,438.2048	38,114.4510	2,081,263.8197	3,386,179.9323	5.9995	0.6821	0.4207	0.2510	0.5683	0.4139
9	147.1194	134.3220	5.8686	99.9847	0.0000	99.8260	0.0002	17,483.6125	43,374.4437	2,099,653.4273	3,398,386.5047	5.9998	0.6813	0.4475	0.2572	0.5811	0.4153
10	146.3326	132.4979	6.1278	99.9953	0.0000	99.9386	0.0001	17,526.6658	48,120.5318	2,110,443.1067	3,399,244.6372	5.9999	0.6756	0.4766	0.2630	0.5916	0.4184
11	145.5749	130.7367	6.3770	99.9985	0.0000	99.9786	0.0000	17,568.0086	52,531.0413	2,117,888.2050	3,393,190.7683	6.0000	0.6675	0.5070	0.2684	0.6000	0.4226
12	144.8410	129.0385	6.6240	99.9995	0.0000	99.9926	0.0000	17,608.0146	56,717.7017	2,123,839.1892	3,383,347.4124	6.0000	0.6582	0.5376	0.2734	0.6065	0.4278
13	144.1282	127.4008	6.8722	99.9999	0.0000	99.9975	0.0000	17,646.8567	60,743.1364	2,129,089.2269	3,371,737.8149	6.0000	0.6488	0.5680	0.2781	0.6114	0.4337
14	143.4361	125.8229	7.1222	100.0000	0.0000	99.9991	0.0000	17,684.5695	64,637.6481	2,133,972.7294	3,359,595.3082	6.0000	0.6396	0.5976	0.2824	0.6151	0.4399
15	142.7656	124.3063	7.3730	100.0000	0.0000	99.9997	0.0000	17,721.1023	68,411.5192	2,138,625.5037	3,347,631.2158	6.0000	0.6309	0.6261	0.2864	0.6176	0.4463
16	142.1186	122.8536	7.6227	100.0000	0.0000	99.9999	0.0000	17,756.3600	72,063.4142	2,143,097.1830	3,336,229.6458	6.0000	0.6229	0.6532	0.2901	0.6193	0.4528
17	141.4969	121.4678	7.8692	100.0000	0.0000	100.0000	0.0000	17,790.2333	75,586.0019	2,147,400.2451	3,325,577.1782	6.0000	0.6154	0.6789	0.2936	0.6204	0.4592
18	140.9025	120.1519	8.1106	100.0000	0.0000	100.0000	0.0000	17,822.6185	78,969.6430	2,151,531.8502	3,315,744.8754	6.0000	0.6086	0.7031	0.2968	0.6209	0.4654
19	140.3371	118.9078	8.3450	100.0000	0.0000	100.0000	0.0000	17,901.8011	83,276.4207	2,156,578.0249	3,306,738.4654	6.0000	0.6024	0.7257	0.2997	0.6211	0.4714
20	139.8016	117.7367	8.5709	100.0000	0.0000	100.0000	0.0000	18,023.9784	91,753.9716	2,166,123.0533	3,298,528.3489	6.0000	0.5968	0.7467	0.3025	0.6209	0.4771
21	139.2970	116.6388	8.7879	100.0000	0.0000	100.0000	0.0000	18,153.9794	103,144.1044	2,179,199.4278	2,607,473.4623	6.0000	0.5917	0.7662	0.3050	0.6204	0.4825
22	138.8231	115.6131	8.9969	100.0000	0.0000	100.0000	0.0000	18,280.7054	115,564.8666	2,193,806.1937	2,384,413.0930	6.0000	0.5871	0.7842	0.3074	0.6197	0.4876
23	138.3795	114.6571	9.1988	100.0000	0.0000	100.0000	0.0000	18,400.7925	127,957.2022	2,208,644.9096	2,309,846.8771	6.0000	0.5830	0.8008	0.3095	0.6186	0.4925
24	137.9653	113.7680	9.3941	100.0000	0.0000	100.0000	0.0000	18,513.3974	139,852.1173	2,223,054.7027	2,282,645.4042	6.0000	0.5792	0.8161	0.3116	0.6173	0.4970
25	137.5793	112.9427	9.5828	100.0000	0.0000	100.0000	0.0000	18,618.4945	151,074.8463	2,236,744.4679	2,270,775.6774	6.0000	0.5758	0.8301	0.3134	0.6158	0.5012
26	137.2202	112.1778	9.7642	100.0000	0.0000	100.0000	0.0000	18,716.3100	161,578.0921	2,249,607.0836	2,264,069.9457	6.0000	0.5727	0.8430	0.3152	0.6143	0.5052
27	136.8867	111.4703	9.9378	100.0000	0.0000	100.0000	0.0000	18,807.1392	171,365.0907	2,261,619.4665	2,259,281.4813	6.0000	0.5699	0.8547	0.3168	0.6126	0.5089
28	136.5778	110.8170	10.1029	100.0000	0.0000	100.0000	0.0000	18,891.2946	180,457.7270	2,281,235.3689	2,255,356.0326	6.0000	0.5674	0.8654	0.3183	0.6110	0.5124
29	136.2923	110.2151	10.2591	100.0000	0.0000	100.0000	0.0000	18,969.0941	188,884.4743	2,317,190.5536	2,251,935.5248	6.0000	0.5651	0.8752	0.3197	0.6094	0.5155
30	136.0289	109.6615	10.4057	100.0000	0.0000	100.0000	0.0000	19,040.8579	196,676.1911	2,371,367.0929	2,248,884.4392	6.0000	0.5630	0.8841	0.3209	0.6078	0.5185

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

Table 6.8. Experiment no. 2: the values of the performance drivers. Period 1990-2020.

	Trained mgrs ratio	Tailored specifications risk ratio	Trained PEs ratio	Evaluation bias risk ratio	ICT endowment ratio	Selective awarding risk ratio	Accounting and record noncompliance risk ratio	Competition ratio	Public reworks ratio	Resource dispersion ratio	Organizational expertise ratio	Regularity ratio	Political credibility ratio
year	dimensionless												
0	1.0000	0.0000	1.0000	0.0000	0.2000	0.0000	0.0000	1.0000	0.0000	0.0000	1.0000	0.5000	0.0100
1	0.9215	0.0144	0.9047	0.0187	0.2047	0.0000	0.0000	0.9950	0.1100	0.0506	0.9055	0.8735	0.0202
2	0.8599	0.0251	0.8190	0.0347	0.2148	0.0000	0.0000	0.9850	0.0075	0.0207	0.8211	0.9826	0.1863
3	0.8057	0.0334	0.7417	0.0474	0.2242	0.0000	0.0000	0.9754	0.0013	0.0064	0.7449	0.9882	0.5274
4	0.7571	0.0402	0.6718	0.0581	0.2331	0.0000	0.0000	0.9672	0.0004	0.0054	0.6762	0.9869	0.7823
5	0.7135	0.0463	0.6087	0.0676	0.2413	0.0000	0.0000	0.9601	0.0001	0.0073	0.6140	0.9846	0.9097
6	0.6740	0.0519	0.5516	0.0763	0.2490	0.0000	0.0000	0.9539	0.0000	0.0100	0.5579	0.9823	0.9647
7	0.6384	0.0571	0.5001	0.0844	0.2563	0.0000	0.0000	0.9483	0.0000	0.0130	0.5072	0.9803	0.9867
8	0.6062	0.0621	0.4535	0.0921	0.2630	0.0000	0.0000	0.9430	0.0000	0.0157	0.4613	0.9785	0.9951
9	0.5771	0.0670	0.4114	0.0995	0.2693	0.0000	0.0000	0.9379	0.0000	0.0183	0.4199	0.9770	0.9983
10	0.5508	0.0716	0.3734	0.1067	0.2752	0.0000	0.0000	0.9331	0.0000	0.0206	0.3825	0.9756	0.9994
11	0.5271	0.0762	0.3390	0.1138	0.2807	0.0000	0.0000	0.9284	0.0000	0.0228	0.3486	0.9743	0.9998
12	0.5056	0.0806	0.3079	0.1206	0.2859	0.0000	0.0000	0.9238	0.0000	0.0248	0.3181	0.9731	0.9999
13	0.4862	0.0849	0.2799	0.1272	0.2907	0.0000	0.0000	0.9194	0.0000	0.0267	0.2904	0.9719	1.0000
14	0.4687	0.0891	0.2545	0.1335	0.2952	0.0000	0.0000	0.9151	0.0000	0.0285	0.2655	0.9707	1.0000
15	0.4528	0.0931	0.2316	0.1396	0.2994	0.0000	0.0000	0.9110	0.0000	0.0303	0.2429	0.9694	1.0000
16	0.4385	0.0969	0.2108	0.1455	0.3033	0.0000	0.0000	0.9070	0.0000	0.0320	0.2225	0.9682	1.0000
17	0.4256	0.1005	0.1921	0.1510	0.3070	0.0000	0.0000	0.9032	0.0000	0.0336	0.2041	0.9669	1.0000
18	0.4139	0.1040	0.1752	0.1563	0.3105	0.0000	0.0000	0.8995	0.0000	0.0352	0.1874	0.9657	1.0000
19	0.4033	0.1072	0.1599	0.1612	0.3137	0.0000	0.0000	0.8961	0.0000	0.0367	0.1724	0.9645	1.0000
20	0.3938	0.1103	0.1461	0.1659	0.3167	0.0000	0.0000	0.8929	0.0000	0.0391	0.1588	0.9633	1.0000
21	0.3851	0.1131	0.1336	0.1702	0.3195	0.0000	0.0000	0.8898	0.0000	0.0429	0.1465	0.9621	1.0000
22	0.3773	0.1157	0.1223	0.1743	0.3222	0.0000	0.0000	0.8870	0.0000	0.0476	0.1354	0.9610	1.0000
23	0.3703	0.1182	0.1121	0.1780	0.3246	0.0000	0.0000	0.8843	0.0000	0.0528	0.1254	0.9600	1.0000
24	0.3639	0.1205	0.1029	0.1815	0.3269	0.0000	0.0000	0.8819	0.0000	0.0579	0.1163	0.9589	1.0000
25	0.3582	0.1226	0.0946	0.1848	0.3291	0.0000	0.0000	0.8796	0.0000	0.0628	0.1081	0.9579	1.0000
26	0.3530	0.1246	0.0871	0.1878	0.3311	0.0000	0.0000	0.8774	0.0000	0.0674	0.1007	0.9570	1.0000
27	0.3483	0.1264	0.0803	0.1906	0.3330	0.0000	0.0000	0.8754	0.0000	0.0717	0.0940	0.9560	1.0000
28	0.3440	0.1281	0.0741	0.1932	0.3347	0.0000	0.0000	0.8736	0.0000	0.0756	0.0879	0.9551	1.0000
29	0.3402	0.1297	0.0686	0.1955	0.3364	0.0000	0.0000	0.8719	0.0000	0.0788	0.0825	0.9543	1.0000
30	0.3367	0.1311	0.0635	0.1977	0.3379	0.0000	0.0000	0.8704	0.0000	0.0812	0.0775	0.9535	1.0000

6.5.3 Experiment 3: Enabling risk of corruption at the pre-tendering, evaluation and awarding stages

In this experiment, ‘Tailored specifications risk ratio’, ‘Evaluation bias risk ratio’ and ‘Selective awarding risk ratio’ are enabled, but not the ‘Accounting noncompliance risk ratio’. This reproduces a slightly worse situation than the previous ones, as there is now the possibility to award non-regular tenders.

Each risk ratio divides tenders between regular and non-regular ones and ‘Civic Morality’ acts as a further sorting rule in the 2nd and the 3rd phase, by discarding those proposals that are both not compliant with procurement requirements and for which the related tenderers do not want to engage in corruption to go ahead with the procurement process.

In particular, in the evaluation phase, tenderers whose proposals are not in line with supply requirements can either accept blurred agreements with civil servants or be discarded. Likewise, in the awarding phase, losing *regular* bidders may decide to either corrupt or be corrupted, thus passing through the ‘Award-rigging of regular tenders’ and filling the ‘Non-Regular Tenders Agreed’ stock up, according to the ‘Selective awarding risk ratio’ and the actual level of ‘Civic Morality’. Finally, even the *non-regular* proposals carry on along the procurement process according to the ‘Selective awarding risk ratio’.

In such an experiment, competition is nearly at the same level as the two previous ones, but, other than in the 2nd phase, the ‘Civic Morality’ now works in the 3rd phase as well, thus increasing the rate of discarded tenderers along the overall procurement process. More precisely, the ‘Selective awarding ratio’ increases the number of ‘Non-regular Tenders Agreed’ and, contemporary, reduces the ‘Regular Tenders Agreed’, increasing the ‘Public Reworks’ needed. Since the number of non-regular contracts becomes higher, the role of ‘Civic Morality’ becomes more evident as more tenderers are called to make a choice, so that more bids are likely to be discarded. Hence, ‘Contracts Executed’ are lower than the budgeted interventions and, therefore, ‘Debt Procurement’ is insignificantly reduced. This also means a lower ‘Political credibility ratio’.

Considering that the ‘Procurement Cost’ is higher than its average level and ‘Public reworks ratio’ is now positive due to presence of non-regular contracts, ‘Resource dispersion ratio’ is more evident. Public reworks mean lower ‘Perception of Public Services Quality by Community’ which, together with a low ‘Political credibility’ and ‘Organizational expertise ratio’, exacerbates the ‘Local Institutional Trust’, with consequences on tax incomes rate too.

The quality of internal routines, namely the 'Regularity ratio', is lower than in the previous experiment, thus making the 'Municipality Accountability' worse and increasing the 'Personnel Discretion'. Since 'Civic Morality' deteriorates too, 'Structural Corruption Conditions' impoverishes as a result, and impacts on the single stages of the procurement process over time.

The model simulation results are showed in Table 6.9 and Table 6.10.

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

Table 6.9. Experiment no. 3: the values of the main stocks. Period 1990-2020.

	Tenders Received	Regular Tenders Accepted	Non-Regular Tenders Accepted	Regular Tenders Agreed	Non-Regular Tenders Agreed	Contracts Executed	Public Reworks	Procurement Cost	Resource Dispersion	Debt Procurement	Municipality Liquidity	Perception of Public Services Quality by Community	Local Institutional Trust	Personnel Discretion	Municipal Accountability	Civic Morality	Structural Corruption Conditions
year	tender						EUR/tender	EUR				dimensionless					
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	17,000.0000	0.0000	1.0000	1.0000	6.0000	0.3150	0.5000	0.1000	0.4717	0.4821
1	106.8115	41.0812	0.5664	7.4466	1.1090	1.9928	0.2795	17,007.9319	2,001.8990	29,957.9962	2,035,261.0728	5.4896	0.3995	0.4929	0.1114	0.4736	0.4823
2	139.4204	96.3110	1.3824	41.9996	4.3368	17.3661	0.9711	17,057.8690	6,702.4623	308,924.3669	2,732,011.3472	5.4919	0.4380	0.4375	0.1689	0.4769	0.4707
3	148.6643	125.3714	2.5402	71.8831	6.9583	49.2185	2.3644	17,132.1787	23,036.7334	913,765.6983	2,987,519.5944	5.6288	0.4833	0.4012	0.1971	0.4856	0.4521
4	150.6247	136.7256	3.5539	82.9881	7.6245	73.8946	3.3085	17,208.2404	48,098.7779	1,429,384.0899	3,116,175.7610	5.6920	0.5413	0.3851	0.2115	0.4981	0.4379
5	150.4176	139.7215	4.3435	87.2512	7.6180	86.9216	3.6375	17,277.3883	69,847.9305	1,736,053.7611	3,207,839.2517	5.7245	0.5924	0.3841	0.2212	0.5127	0.4289
6	149.6256	139.3512	4.9495	88.9467	7.4058	92.9208	3.6226	17,338.8500	84,180.7044	1,897,344.7557	3,276,551.8934	5.7467	0.6273	0.3939	0.2292	0.5279	0.4239
7	148.7174	137.7908	5.4266	89.6005	7.1534	95.4321	3.4651	17,394.1245	92,374.6853	1,976,959.9585	3,323,060.3414	5.7651	0.6465	0.4117	0.2363	0.5423	0.4219
8	147.8206	135.8875	5.8194	89.8070	6.9224	96.3427	3.2706	17,444.8261	96,831.3620	2,014,504.7863	3,349,830.8966	5.7814	0.6538	0.4348	0.2429	0.5553	0.4222
9	146.9618	133.9407	6.1602	89.8141	6.7349	96.5547	3.0870	17,492.1990	99,449.7543	2,031,468.7226	3,361,331.1193	5.7955	0.6532	0.4615	0.2491	0.5664	0.4243
10	146.1409	132.0430	6.4709	89.7307	6.5964	96.4811	2.9326	17,537.1118	101,397.4991	2,038,830.3968	3,362,255.5373	5.8073	0.6479	0.4903	0.2548	0.5756	0.4278
11	145.3524	130.2165	6.7653	89.6072	6.5049	96.3066	2.8121	17,580.1316	103,293.2244	2,042,011.3643	3,356,503.9103	5.8168	0.6400	0.5202	0.2600	0.5830	0.4324
12	144.5917	128.4625	7.0514	89.4677	6.4553	96.1120	2.7239	17,621.5949	105,418.5357	2,043,618.5148	3,346,926.5999	5.8240	0.6309	0.5503	0.2649	0.5888	0.4378
13	143.8564	126.7785	7.3334	89.3246	6.4412	95.9311	2.6641	17,661.6692	107,868.5627	2,044,864.0528	3,335,444.9228	5.8292	0.6214	0.5800	0.2694	0.5933	0.4438
14	143.1455	125.1630	7.6127	89.1843	6.4564	95.7766	2.6281	17,700.4046	110,642.9654	2,046,277.8249	3,323,279.7703	5.8328	0.6121	0.6090	0.2736	0.5965	0.4500
15	142.4596	123.6162	7.8892	89.0505	6.4948	95.6518	2.6118	17,737.7781	113,696.8666	2,048,059.4268	3,311,167.9980	5.8349	0.6033	0.6368	0.2774	0.5988	0.4565
16	141.7998	122.1393	8.1619	88.9251	6.5512	95.5557	2.6112	17,773.7269	116,968.0760	2,050,251.2951	3,299,529.6824	5.8358	0.5949	0.6633	0.2808	0.6003	0.4629
17	141.1676	120.7342	8.4295	88.8093	6.6212	95.4857	2.6230	17,808.1734	120,391.0991	2,052,823.7429	3,288,585.3322	5.8357	0.5873	0.6884	0.2840	0.6011	0.4693
18	140.5644	119.4024	8.6905	88.7035	6.7007	95.4385	2.6444	17,861.8917	124,087.4057	2,055,895.1720	3,278,433.5079	5.8349	0.5802	0.7120	0.2869	0.6014	0.4755
19	139.9912	118.1450	8.9435	88.6079	6.7866	95.4111	2.6730	17,979.2935	131,368.3861	2,062,846.0326	3,269,100.4024	5.8336	0.5738	0.7341	0.2896	0.6014	0.4815
20	139.4490	116.9623	9.1877	88.5222	6.8765	95.4003	2.7071	18,114.7640	142,650.1358	2,074,477.6149	3,260,570.7264	5.8318	0.5679	0.7546	0.2920	0.6010	0.4872
21	138.9380	115.8539	9.4235	88.4460	6.9692	95.4037	2.7456	18,250.1017	155,800.5862	2,088,709.0263	2,569,212.7542	5.8296	0.5626	0.7736	0.2942	0.6002	0.4927
22	138.4580	114.8177	9.6521	88.3790	7.0643	95.4198	2.7879	18,379.6388	169,388.5867	2,103,908.0890	2,345,871.2010	5.8272	0.5578	0.7912	0.2963	0.5990	0.4978
23	138.0083	113.8512	9.8743	88.3209	7.1615	95.4476	2.8338	18,501.7677	182,731.2334	2,119,179.4603	2,271,048.3445	5.8246	0.5535	0.8074	0.2982	0.5976	0.5027
24	137.5878	112.9513	10.0900	88.2712	7.2601	95.4863	2.8828	18,616.2039	195,551.3542	2,134,097.3343	2,243,615.7667	5.8218	0.5496	0.8222	0.2999	0.5960	0.5073
25	137.1953	112.1149	10.2987	88.2295	7.3590	95.5347	2.9341	18,723.0829	207,751.8999	2,148,474.7301	2,231,540.6561	5.8188	0.5460	0.8359	0.3015	0.5942	0.5116
26	136.8298	111.3389	10.4997	88.1954	7.4572	95.5914	2.9871	18,822.6634	219,306.6010	2,162,232.3884	2,224,655.0568	5.8157	0.5428	0.8484	0.3029	0.5922	0.5157
27	136.4900	110.6203	10.6923	88.1681	7.5537	95.6549	3.0409	18,915.2374	230,214.3290	2,175,336.0043	2,219,711.7425	5.8125	0.5399	0.8598	0.3042	0.5903	0.5195
28	136.1748	109.9561	10.8757	88.1470	7.6476	95.7235	3.0947	19,001.1082	240,482.4951	2,187,769.8737	2,215,655.6290	5.8093	0.5373	0.8702	0.3054	0.5883	0.5230
29	135.8830	109.3433	11.0497	88.1313	7.7380	95.7957	3.1479	19,080.5869	250,122.0984	2,199,527.3360	2,212,127.4341	5.8060	0.5350	0.8797	0.3066	0.5864	0.5263
30	135.6136	108.7791	11.2138	88.1203	7.8245	95.8699	3.1999	19,153.9928	259,146.7563	2,210,607.9243	2,208,990.0755	5.8029	0.5329	0.8884	0.3076	0.5845	0.5293

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

Table 6.10. Experiment no. 3: the values of the performance drivers. Period 1990-2020.

	Trained mgrs ratio	Tailored specifications risk ratio	Trained PEs ratio	Evaluation bias risk ratio	ICT endowment ratio	Selective awarding risk ratio	Accounting and record noncompliance risk ratio	Competition ratio	Public reworks ratio	Resource dispersion ratio	Organizational expertise ratio	Regularity ratio	Political credibility ratio
year	dimensionless												
0	1.0000	0.0000	1.0000	0.0000	0.2000	0.1609	0.0000	1.0000	0.0000	0.0000	1.0000	0.5000	0.0100
1	0.9215	0.0144	0.9047	0.0187	0.2047	0.1600	0.0000	0.9950	0.1403	0.0512	0.9055	0.8641	0.0199
2	0.8599	0.0251	0.8190	0.0347	0.2148	0.1542	0.0000	0.9850	0.0559	0.0303	0.8211	0.9590	0.1720
3	0.8057	0.0335	0.7417	0.0476	0.2242	0.1463	0.0000	0.9753	0.0480	0.0230	0.7449	0.9569	0.4808
4	0.7571	0.0405	0.6718	0.0585	0.2331	0.1401	0.0000	0.9670	0.0448	0.0285	0.6762	0.9537	0.7153
5	0.7135	0.0469	0.6087	0.0683	0.2413	0.1358	0.0000	0.9598	0.0418	0.0352	0.6140	0.9516	0.8387
6	0.6740	0.0527	0.5516	0.0774	0.2490	0.1328	0.0000	0.9534	0.0390	0.0405	0.5579	0.9500	0.8967
7	0.6384	0.0582	0.5001	0.0859	0.2563	0.1309	0.0000	0.9475	0.0363	0.0441	0.5072	0.9487	0.9224
8	0.6062	0.0634	0.4535	0.0939	0.2630	0.1298	0.0000	0.9420	0.0339	0.0464	0.4613	0.9476	0.9329
9	0.5771	0.0684	0.4114	0.1017	0.2693	0.1293	0.0000	0.9367	0.0320	0.0479	0.4199	0.9466	0.9366
10	0.5508	0.0733	0.3734	0.1092	0.2752	0.1294	0.0000	0.9317	0.0304	0.0489	0.3825	0.9455	0.9373
11	0.5271	0.0780	0.3390	0.1164	0.2807	0.1298	0.0000	0.9268	0.0292	0.0497	0.3486	0.9443	0.9367
12	0.5056	0.0825	0.3079	0.1234	0.2859	0.1304	0.0000	0.9221	0.0283	0.0506	0.3181	0.9430	0.9356
13	0.4862	0.0869	0.2799	0.1301	0.2907	0.1313	0.0000	0.9175	0.0278	0.0516	0.2904	0.9416	0.9344
14	0.4687	0.0912	0.2545	0.1366	0.2952	0.1323	0.0000	0.9131	0.0274	0.0528	0.2655	0.9400	0.9332
15	0.4528	0.0952	0.2316	0.1428	0.2994	0.1334	0.0000	0.9089	0.0273	0.0541	0.2429	0.9384	0.9322
16	0.4385	0.0991	0.2108	0.1488	0.3033	0.1345	0.0000	0.9049	0.0273	0.0556	0.2225	0.9366	0.9312
17	0.4256	0.1028	0.1921	0.1544	0.3070	0.1357	0.0000	0.9010	0.0275	0.0571	0.2041	0.9348	0.9305
18	0.4139	0.1062	0.1752	0.1597	0.3105	0.1368	0.0000	0.8973	0.0277	0.0587	0.1874	0.9330	0.9298
19	0.4033	0.1095	0.1599	0.1647	0.3137	0.1379	0.0000	0.8938	0.0280	0.0607	0.1724	0.9311	0.9293
20	0.3938	0.1126	0.1461	0.1694	0.3167	0.1389	0.0000	0.8906	0.0284	0.0643	0.1588	0.9293	0.9289
21	0.3851	0.1155	0.1336	0.1738	0.3195	0.1399	0.0000	0.8875	0.0288	0.0692	0.1465	0.9275	0.9285
22	0.3773	0.1182	0.1223	0.1779	0.3222	0.1408	0.0000	0.8846	0.0292	0.0748	0.1354	0.9257	0.9283
23	0.3703	0.1207	0.1121	0.1817	0.3246	0.1416	0.0000	0.8819	0.0297	0.0805	0.1254	0.9240	0.9282
24	0.3639	0.1230	0.1029	0.1853	0.3269	0.1425	0.0000	0.8794	0.0302	0.0862	0.1163	0.9223	0.9281
25	0.3582	0.1252	0.0946	0.1886	0.3291	0.1432	0.0000	0.8771	0.0307	0.0915	0.1081	0.9206	0.9281
26	0.3530	0.1272	0.0871	0.1917	0.3311	0.1439	0.0000	0.8749	0.0312	0.0966	0.1007	0.9190	0.9282
27	0.3483	0.1291	0.0803	0.1945	0.3330	0.1446	0.0000	0.8729	0.0318	0.1013	0.0940	0.9175	0.9283
28	0.3440	0.1308	0.0741	0.1972	0.3347	0.1452	0.0000	0.8710	0.0323	0.1057	0.0879	0.9160	0.9285
29	0.3402	0.1324	0.0686	0.1996	0.3364	0.1457	0.0000	0.8693	0.0329	0.1098	0.0825	0.9145	0.9287
30	0.3367	0.1338	0.0635	0.2018	0.3379	0.1462	0.0000	0.8677	0.0334	0.1136	0.0775	0.9132	0.9290

6.5.4 Basic run: Enabling risk of corruption along the overall procurement process

The explanatory model is now set with all the corruption risks enabled. Figure 6.7 exhibits the behaviour over time of the main strategic resources, performance drivers and end-results of the explanatory model, which reproduces the decreasingly increase path of the Municipality's debt over the last 30 years exhibited in Figure 6.1. Furthermore, tables 6.11 and 6.12 show the model simulation results of the basic run.

At the beginning, as 'Debt Procurement' increases increasingly and, then, decreasingly, the 'Municipality Liquidity' decreasingly increases. Both remain almost steady until 2010 – time 20 in 'Financial levels' box. Between 2000-2006 – i.e., time 10-16 –, period during which the investigated events occurred, the local Government's financial status does not signal any anomaly and the Municipality results solvent. In 2010, the state transfers begin to decrease according to the national austerity regulation, and the solvency margin decreases as well, becoming negative in time 2014 – compare 'Municipality Liquidity' to 'Debt Procurement' in Table 6.11.

Overall, the non-regular bids are a small part of the overall proposals received, accepted and agreed with over the considered time span. This is coherent with the fact that a few identified and judged episodes only were actually referred to the Municipality's debt growth (Public Official #2, 2019). Their impact can be understood through the performance driver 'Regularity ratio': even if high, 'Regularity ratio' does not equal its maximum level, and this means the possible existence of corruption vulnerabilities in the procurement process. Given this possibility, the lack of preventive measures linked to professional and integrity training enabled inappropriate practices, either for cultural acceptance or for lack of awareness of the local Authority's civil servants, which impacted on the 'Personnel Discretion'. The latter starts to grow up decreasingly between time 2000-2006 – time 10-16, 'Structural conditions levels' box.

More precisely, 'Personnel Discretion' becomes higher than 'Civic Morality' in time 14 – i.e., 2004 –, as a result of the gradual prevalence of the cultural acceptance/ignorance of inappropriate practices that allowed for poor governance along the overall procurement process. Indeed, the two risk performance drivers 'Tailored specifications risk ratio' and 'Evaluation bias risk ratio' increase decreasingly over the investigated time lapse, as a result of the total neglect of individualistic and group professionalism, whose reduction for both executive and non-executive charges led to a holistic impoverishment of expertise.

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

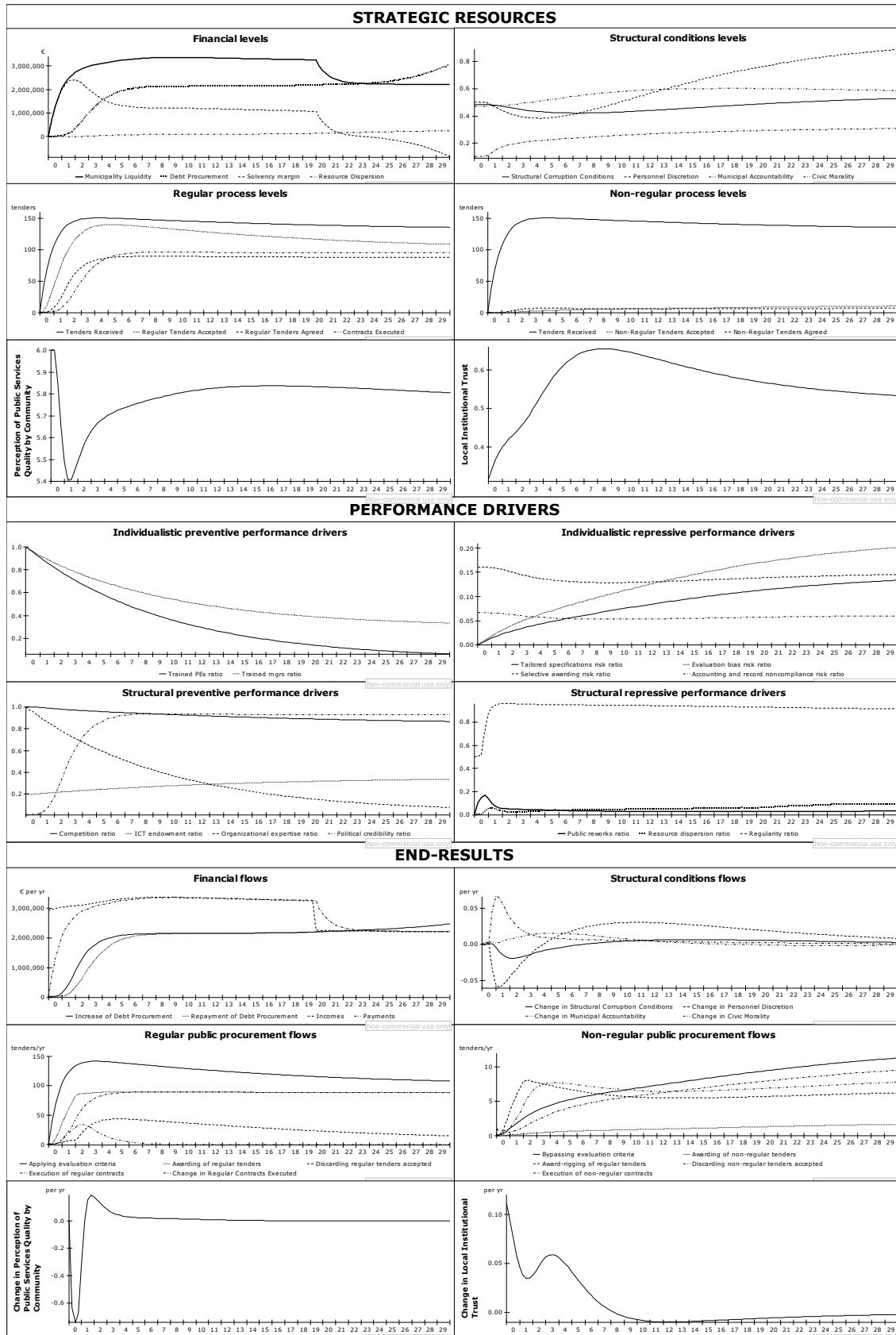


Figure 6.7. Simulation of the effects of corruption in public procurement on the system. Period 1990-2020.

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

Table 6.11. Basic run: the values of the main stocks. Period 1990-2020.

	Tenders Received	Regular Tenders Accepted	Non-Regular Tenders Accepted	Regular Tenders Agreed	Non-Regular Tenders Agreed	Contracts Executed	Public Reworks	Procurement Cost	Resource Dispersion	Debt Procurement	Municipality Liquidity	Perception of Public Services Quality by Community	Local Institutional Trust	Personnel Discretion	Municipal Accountability	Civic Morality	Structural Corruption Conditions
year	tender						EUR/tender	EUR				dimensionless					
0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	17,000.0000	0.0000	1.0000	1.0000	6.0000	0.3150	0.5000	0.1000	0.4717	0.4821
1	106.8115	41.0812	0.5664	7.4466	1.1090	1.9928	0.2795	17,007.9319	2,001.8990	31,970.9852	2,035,261.0728	5.4896	0.3995	0.4929	0.1114	0.4736	0.4823
2	139.4204	96.3110	1.3821	41.9997	4.3357	17.3660	0.9707	17,057.8688	6,701.6441	329,238.2464	2,732,011.3506	5.4919	0.4380	0.4375	0.1689	0.4771	0.4706
3	148.6644	125.3718	2.5389	71.8834	6.9548	49.2171	2.3624	17,132.1742	23,024.7139	971,463.3972	2,987,519.7992	5.6289	0.4833	0.4012	0.1971	0.4859	0.4520
4	150.6250	136.7265	3.5516	82.9879	7.6194	73.8913	3.3049	17,208.2237	48,062.4838	1,516,083.4661	3,116,176.8374	5.6922	0.5413	0.3851	0.2115	0.4984	0.4378
5	150.4182	139.7232	4.3400	87.2504	7.6117	86.9164	3.6327	17,277.3543	69,785.2098	1,837,757.7695	3,207,841.8321	5.7248	0.5924	0.3840	0.2212	0.5131	0.4288
6	149.6266	139.3538	4.9447	88.9453	7.3984	92.9137	3.6168	17,338.7954	84,094.2957	2,005,400.4418	3,276,555.9227	5.7470	0.6273	0.3939	0.2292	0.5283	0.4238
7	148.7189	137.7945	5.4203	89.5987	7.1448	95.4233	3.4584	17,394.0461	92,267.2014	2,087,130.5938	3,323,065.2041	5.7655	0.6465	0.4117	0.2363	0.5428	0.4218
8	147.8225	135.8924	5.8115	89.8049	6.9125	96.3323	3.2631	17,444.7199	96,704.3905	2,125,033.6301	3,349,835.8700	5.7818	0.6538	0.4348	0.2429	0.5558	0.4220
9	146.9643	133.9468	6.1506	89.8118	6.7238	96.5428	3.0788	17,492.0616	99,304.3413	2,141,815.0341	3,361,335.6297	5.7959	0.6532	0.4615	0.2491	0.5670	0.4241
10	146.1440	132.0505	6.4596	89.7283	6.5842	96.4679	2.9238	17,536.9407	101,234.5911	2,148,993.7304	3,362,259.2013	5.8078	0.6479	0.4903	0.2548	0.5763	0.4276
11	145.3562	130.2254	6.7524	89.6046	6.4917	96.2921	2.8027	17,579.9257	103,113.7934	2,152,198.5355	3,356,506.4931	5.8173	0.6400	0.5201	0.2601	0.5837	0.4322
12	144.5962	128.4728	7.0369	89.4650	6.4411	96.0963	2.7139	17,621.3543	105,223.5079	2,154,088.1884	3,346,927.9716	5.8246	0.6309	0.5503	0.2650	0.5896	0.4376
13	143.8614	126.7902	7.3173	89.3218	6.4262	95.9143	2.6535	17,661.3946	107,658.6968	2,155,858.9517	3,335,445.0302	5.8298	0.6214	0.5800	0.2695	0.5940	0.4436
14	143.1511	125.1759	7.5951	89.1813	6.4404	95.7588	2.6171	17,700.0975	110,418.7607	2,157,998.9100	3,323,278.6173	5.8334	0.6121	0.6089	0.2736	0.5973	0.4498
15	142.4658	123.6303	7.8701	89.0473	6.4780	95.6329	2.6002	17,737.4398	113,458.5226	2,160,659.5927	3,311,165.6288	5.8355	0.6032	0.6368	0.2774	0.5996	0.4562
16	141.8066	122.1546	8.1414	88.9218	6.5335	95.5357	2.5991	17,773.3585	116,715.4983	2,163,837.6869	3,299,526.1654	5.8365	0.5949	0.6633	0.2809	0.6011	0.4627
17	141.1749	120.7506	8.4075	88.8058	6.6026	95.4646	2.6103	17,807.7759	120,123.9364	2,167,463.4709	3,288,580.7448	5.8364	0.5873	0.6884	0.2841	0.6020	0.4691
18	140.5722	119.4199	8.6670	88.6998	6.6812	95.4164	2.6311	17,860.6880	123,794.2439	2,171,620.9837	3,278,427.9243	5.8357	0.5802	0.7120	0.2870	0.6024	0.4753
19	139.9996	118.1635	8.9185	88.6039	6.7661	95.3878	2.6591	17,977.3151	130,985.9699	2,179,803.5449	3,269,093.8860	5.8344	0.5738	0.7340	0.2896	0.6023	0.4812
20	139.4578	116.9820	9.1611	88.5179	6.8550	95.3757	2.6924	18,112.4441	142,191.4244	2,192,924.1055	3,260,563.3256	5.8326	0.5679	0.7545	0.2921	0.6020	0.4869
21	138.9474	115.8746	9.3952	88.4414	6.9465	95.3778	2.7301	18,247.5751	155,286.0683	2,208,788.2781	2,569,204.5090	5.8305	0.5626	0.7736	0.2943	0.6012	0.4924
22	138.4679	114.8396	9.6218	88.3741	7.0403	95.3924	2.7715	18,376.9410	168,828.2805	2,225,655.6872	2,345,862.1609	5.8282	0.5578	0.7911	0.2964	0.6001	0.4975
23	138.0188	113.8743	9.8416	88.3155	7.1359	95.4185	2.8163	18,498.8972	182,126.9318	2,242,566.7334	2,271,038.5769	5.8256	0.5535	0.8073	0.2982	0.5988	0.5024
24	137.5990	112.9759	10.0546	88.2653	7.2326	95.4552	2.8639	18,613.1429	194,900.0623	2,260,725.8039	2,243,605.3445	5.8228	0.5496	0.8222	0.3000	0.5972	0.5070
25	137.2074	112.1412	10.2604	88.2232	7.3294	95.5012	2.9138	18,719.8066	207,048.1541	2,304,918.9165	2,231,529.6311	5.8199	0.5460	0.8359	0.3015	0.5955	0.5113
26	136.8427	111.3671	10.4579	88.1884	7.4252	95.5553	2.9650	18,819.1446	218,543.5474	2,380,764.9057	2,224,643.4406	5.8169	0.5428	0.8484	0.3030	0.5937	0.5153
27	136.5039	110.6508	10.6453	88.1604	7.5181	95.6155	3.0164	18,911.4361	229,381.4710	2,489,445.7821	2,219,699.5664	5.8138	0.5399	0.8598	0.3043	0.5920	0.5191
28	136.1901	109.9898	10.8204	88.1384	7.6063	95.6795	3.0665	18,996.9346	239,558.6957	2,634,751.5049	2,215,643.1370	5.8107	0.5373	0.8702	0.3055	0.5905	0.5225
29	135.9004	109.3821	10.9811	88.1213	7.6876	95.7446	3.1137	19,075.8557	249,066.3062	2,821,926.7204	2,212,115.2684	5.8078	0.5350	0.8797	0.3067	0.5891	0.5257
30	135.6341	108.8257	11.1253	88.1083	7.7604	95.8078	3.1567	19,148.3902	257,890.0576	3,057,418.7688	2,208,979.2965	5.8050	0.5329	0.8884	0.3077	0.5881	0.5285

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

Table 6.12. Basic run: the values of the performance drivers. Period 1990-2020.

	Trained mgrs ratio	Tailored specifications risk ratio	Trained PEs ratio	Evaluation bias risk ratio	ICT endowment ratio	Selective awarding risk ratio	Accounting and record noncompliance risk ratio	Competition ratio	Public reworks ratio	Resource dispersion ratio	Organizational expertise ratio	Regularity ratio	Political credibility ratio
year	dimensionless												
0	1.0000	0.0000	1.0000	0.0000	0.2000	0.1609	0.0672	1.0000	0.0000	0.0000	1.0000	0.5000	0.0100
1	0.9215	0.0144	0.9047	0.0187	0.2047	0.1600	0.0669	0.9950	0.1403	0.0480	0.9055	0.8641	0.0199
2	0.8599	0.0251	0.8190	0.0347	0.2148	0.1542	0.0644	0.9850	0.0559	0.0284	0.8211	0.9590	0.1720
3	0.8057	0.0335	0.7417	0.0476	0.2242	0.1463	0.0611	0.9753	0.0480	0.0216	0.7449	0.9570	0.4808
4	0.7571	0.0405	0.6718	0.0585	0.2331	0.1401	0.0585	0.9670	0.0447	0.0268	0.6762	0.9538	0.7153
5	0.7135	0.0468	0.6087	0.0683	0.2413	0.1357	0.0567	0.9598	0.0418	0.0332	0.6140	0.9516	0.8387
6	0.6740	0.0527	0.5516	0.0774	0.2490	0.1328	0.0555	0.9534	0.0389	0.0382	0.5579	0.9500	0.8967
7	0.6384	0.0581	0.5001	0.0858	0.2563	0.1309	0.0547	0.9475	0.0362	0.0417	0.5072	0.9488	0.9223
8	0.6062	0.0634	0.4535	0.0939	0.2630	0.1298	0.0542	0.9420	0.0339	0.0439	0.4613	0.9477	0.9329
9	0.5771	0.0684	0.4114	0.1016	0.2693	0.1293	0.0540	0.9367	0.0319	0.0453	0.4199	0.9466	0.9366
10	0.5508	0.0732	0.3734	0.1091	0.2752	0.1293	0.0540	0.9317	0.0303	0.0463	0.3825	0.9456	0.9373
11	0.5271	0.0779	0.3390	0.1163	0.2807	0.1297	0.0542	0.9268	0.0291	0.0471	0.3486	0.9444	0.9367
12	0.5056	0.0825	0.3079	0.1233	0.2859	0.1304	0.0545	0.9221	0.0282	0.0479	0.3181	0.9431	0.9356
13	0.4862	0.0869	0.2799	0.1301	0.2907	0.1313	0.0548	0.9176	0.0277	0.0489	0.2904	0.9417	0.9343
14	0.4687	0.0911	0.2545	0.1365	0.2952	0.1323	0.0553	0.9132	0.0273	0.0500	0.2655	0.9402	0.9332
15	0.4528	0.0952	0.2316	0.1428	0.2994	0.1334	0.0557	0.9090	0.0272	0.0512	0.2429	0.9385	0.9321
16	0.4385	0.0990	0.2108	0.1487	0.3033	0.1345	0.0562	0.9049	0.0272	0.0525	0.2225	0.9368	0.9312
17	0.4256	0.1027	0.1921	0.1543	0.3070	0.1356	0.0567	0.9010	0.0273	0.0540	0.2041	0.9350	0.9304
18	0.4139	0.1062	0.1752	0.1596	0.3105	0.1367	0.0571	0.8974	0.0276	0.0554	0.1874	0.9332	0.9297
19	0.4033	0.1095	0.1599	0.1646	0.3137	0.1378	0.0576	0.8939	0.0279	0.0574	0.1724	0.9313	0.9292
20	0.3938	0.1125	0.1461	0.1693	0.3167	0.1388	0.0580	0.8906	0.0282	0.0607	0.1588	0.9295	0.9288
21	0.3851	0.1154	0.1336	0.1737	0.3195	0.1398	0.0584	0.8875	0.0286	0.0652	0.1465	0.9277	0.9284
22	0.3773	0.1181	0.1223	0.1778	0.3222	0.1407	0.0588	0.8847	0.0291	0.0705	0.1354	0.9260	0.9282
23	0.3703	0.1206	0.1121	0.1816	0.3246	0.1416	0.0591	0.8820	0.0295	0.0759	0.1254	0.9242	0.9280
24	0.3639	0.1229	0.1029	0.1852	0.3269	0.1424	0.0595	0.8795	0.0300	0.0812	0.1163	0.9226	0.9280
25	0.3582	0.1251	0.0946	0.1885	0.3291	0.1431	0.0598	0.8771	0.0305	0.0859	0.1081	0.9209	0.9280
26	0.3530	0.1271	0.0871	0.1916	0.3311	0.1438	0.0601	0.8750	0.0310	0.0893	0.1007	0.9193	0.9280
27	0.3483	0.1290	0.0803	0.1944	0.3330	0.1444	0.0604	0.8730	0.0315	0.0913	0.0940	0.9178	0.9282
28	0.3440	0.1307	0.0741	0.1970	0.3347	0.1450	0.0606	0.8711	0.0320	0.0916	0.0879	0.9163	0.9283
29	0.3402	0.1322	0.0686	0.1994	0.3364	0.1455	0.0608	0.8694	0.0325	0.0903	0.0825	0.9149	0.9285
30	0.3367	0.1336	0.0635	0.2015	0.3379	0.1460	0.0610	0.8678	0.0329	0.0876	0.0775	0.9137	0.9288

As such, 'Personnel Discretion' represents the main component that exacerbates the general conditions for structural corruption. In addition, 'Organisational expertise ratio' affects the 'Local Institutional Trust', with important consequences on tax incomes and 'Civic Morality'. In particular, despite an almost sufficient service quality, 'Local Institutional Trust' decreasingly decreases between 2000-2006 – time 10-16, correspondent box – due to bad citizens' perception of civil servants' skills for competence.

On the other hand, the positive effect of the 'Municipal Accountability' on 'Civic Morality' is not significant, because of the lack of investments in ICTs. Coherently with what emerged in Chapter 5, the structural dearth of ICTs makes 'Municipal Accountability' low, and blurred and not-detectable relevant accounting and record management irregularities possible. These anomalies work as catalysts of the Municipality's financial plight through the rise of out-of-budget debts. As such, in the model simulation, they generate an expansive effect on 'Debt Procurement', which is the most deleterious effect of corrupt practices on the overall system. Indeed, as the 3rd experiment shows, by activating the risks of corruption in the first three procurement stages only, 'Debt Procurement' grows more slowly than in the basic run, such that the gap with 'Municipality Liquidity' – i.e., 'Solvency margin' – remains positive over the considered run time.

In relation to the previous three experiments, this additional effect makes the people's perception of resource waste and the related impact on 'Civic Morality' less serious – i.e., lower 'Resource dispersion ratio' – for the echoes of incremental budgeting practices explained in section 6.5.1. However, the 'Political credibility ratio' does not benefit from it, since debts increase without parallel public interventions.

The model is simplistic, as it is not possible to exactly determine the moment when these dynamics of cultural change actually started. Nevertheless, according to the Public Official #5 (2019) – see Appendix A –, after the first dissolution in 1991, the municipal administration was commissioned for mafia infiltrations and steered by external authorities and professionals. No glaring illicit episode actually occurred, by virtue of strict internal controls and a virtuous managerial paradigm. This is here modelled as a temporary 'status quo' situation in which inappropriate behaviours gradually resurfaced due to resilience of the local organised crime's influence in the early 2000s.

Resuming, the debt plight is the main outcome of the described poor governance mechanisms, especially related to accounting and record management. In particular, the reduction

of state transfers highlighted the tendency of the local Authority to incur expenditures higher than the actual budgetary commitments, hence causing the pathological unpayable debt that has led Cerda to declare its instability condition. As argued in Chapter 5, this tendency visibly manifested itself with the introduction of the new rules of public accounting in 2016.

6.6 Reducing ambiguity of corruption in procurement by framing ‘civic morality’

An outcome-based DPM approach contributes to improve the signalling capability of common red-flags and reduce ambiguity of performance measures, so as to better understand the actual responsibilities for phase performance and reduce the likelihood to blame officials in charge erroneously.

Integrating the equations [3] and [2] to the [1] opportunely, it results in the following:

$$\begin{aligned} [1] \text{ Risk performance driver } i &= (1 - \text{Performance driver } i) * \\ &\frac{\text{Structural Corruption Conditions} * \text{Individualistic probability } 'x' * \text{Weight } 'x'}{\text{Maximum score of corruption risk range}} = (1 - \text{Performance driver } i) * \\ &\frac{(\text{Personnel Discretion} - \text{Competition ratio} - \text{Municipal Accountability} - \text{Civic Morality}) * \text{Individualistic probability } 'x' * \text{Weight } 'x'}{\text{Maximum score of corruption risk range}} \end{aligned}$$

Framed within the DPM chart, ‘Civic morality’ may be the discriminant factor that better explains the possible presence or absence of corruption in the system by isolating its possible impacts for each phase. To underpin this statement, a general discussion of what said in the previous section is needed.

As it has been showed, in the case where the pre-tendering phase only is likely to be subject to corruption, a lower number of competitors may be involved due to entry restrictions. No other weakness is present along the procurement process and this means that, on the one hand, proposals are evaluated according to the correct criteria and supply requirements and, on the other hand, there are no irregularities at the awarding and the post-awarding stages. As such, the executed contracts are all regular and this, in principle, excludes any resource waste due to ‘Public Reworks’, but only a partial resource dispersion that may stem from the lower competition in terms of ‘Procurement Cost’. Therefore, ‘Perception of Public Service Quality by Community’ is satisfying just like the degree of political credibility, positively impacting on the ‘Local Institutional Trust’ and, as a result, on tax incomes and ‘Civic Morality’. Nevertheless, despite a

high 'Regularity ratio', inadequate professionalism and an ineffective ICT system, may negatively affect 'Structural Corruption Conditions'.

A high 'Procurement Cost' exponentially increases 'Reported Debt Procurement' and reduces the resulting 'Resource dispersion ratio', indicating to what extent the community's perception of corrupt practices is overshadowed and justified by a high indebtedness. Indeed, incremental budgeting (Hood, 1991) is typically a proxy of political efforts for local communities (Public Official #3, 2019) and people cannot discern the extent to which 'Debt Procurement' is linked to resource waste due to corruption, as it is naturally clandestine. This leads citizens to underestimate the real impact of possible malfeasances and, if public services quality is ensured, the public spending growth is not checked out by the community, at least until incomes can ensure adequate debt coverage.

In relation to the case at hand, what above outlines the unsustainable decision-making pattern of 'informal tenders'²¹ driven by accepted favouritism practices at local level (Public Official #3, 2019), whose outcomes appeared immediately after the reduction of state transfers and the introduction of the new rules of cash basis of accounting. Under this point of view, what Coviello et al. (2018) stated about the positive effect of discretion to overcome costly bureaucracy and regulatory burdens may be justified only if public authorities, on the one hand, do not exceed the budgeted expenditure and, on the other hand, guarantee service quality, transparency and legitimate civil servants' discretion.

Interestingly, when tendering competition is ensured and corruption occurs at the last three stages only, evaluation criteria are bypassed and irregular proposals are awarded. This situation may be the same as that depicted by Søreide (2002: 4): when several suppliers are involved in a public contract assignment, in conditions of high profile of corruption, providers may think that their competitors are inclined to pay kickbacks to get a contract, so that they may accept to corrupt as well. In some cases, expedients and criminal acts may even configure situations with high profile of corruption through the formation of cartels among tenderers (World Bank, 2007: 11). Moreover, public officials may obtain kickbacks in the case they accept lower or different quality standards with respect to those requested by law (Lambsdorff, 2006: 8). Finally, in case of unsatisfying environmental honesty, thanks to a high competition level, resources released by

²¹ Cf. Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007; of 11-05-2012, no. 312/12, procedure no. 891/2009.

reductions in the average cost of procurements may paradoxically leave room for efficient corruption opportunities, for instance, by awarding multiple procurements at average market prices with amounts that do not exceed budgeted investments.

It follows that the particular hidden nature of corruption may elude both red-flags and common MCSs, actually existing despite no performance exception arises. Specifically, although competition may enhance openness and transparency degrees of bidding (Heggstad & Frøystad, 2011: 3), there is no guarantee on whether or not it is able to ward corruption off. However, high competition may allow for a lower procurement prices, political reliability and trust in local government, thus curbing tax avoidance, fostering ‘Civic Morality’ and mortifying structural corruption.

In relation to the case where corruption may occur in the first two phases only, some further experiments led to simulation results that, even though non-exhibited here as non-relevant in terms of basic run, it may be interesting to mention just for the simplicity of the underlying reasoning. In such a situation, the involved competitors may be less than the actual local providers and irregular proposals may bypass evaluation criteria, according to the level of ‘Civic Morality’. However, they might not be awarded, thanks to factors curbing possible corruption opportunities at the last stages.

It means that all the executed contracts may be regular, but less than in the previous situation, since irregular proposals are discarded in the awarding phase. In particular, when ‘Evaluation bias risk ratio’ is enough high, regular ‘Contracts Executed’ may be below the actual budgeted interventions, and all of them be regular. This situation depicts an incomplete capability of the Municipality to carry the budgeted public interventions out, thus undermining the local politicians’ credibility and trust in local government. In other terms, by using the useful distinction made by Christensen and Læg Reid (2005), the *output-related trust* may be low despite a good perceived service quality that positively impacts on the *process-based trust*.

Therefore, despite a poorer quality of organisational routines, the local debt may be covered without particular issues, but it may result such as to reduce the community’s perception of politicians’ credibility, hence negatively affecting ‘Local Institutional Trust’, ‘Civic Morality’, the citizens’ proneness to pay local taxes and, together with low ‘Municipal Accountability’ and high ‘Personnel Discretion’, boosting ‘Structural Corruption Conditions’.

It emerges that a local government may be efficient thanks to the fact that budgeted interventions are not completely realised because of corruption at the evaluation stage and, paradoxically, the impossibility to award non-regular bids, hence resulting ineffective. Under these particular conditions, one may consider a trade-off between fairness and government inertia.

Obviously, in the reality, the dynamics highlighted above may occur at the same time and with different scopes and weights. Overall, keeping under control the main levers of ‘Civic Morality’ allows public managers to detect possible cultural alignments to corrupt practices at system level, as well as to signal the existence of stable governance mechanisms that provide individuals with high economic incentives and low ethical barriers, steered by certainty of favourable internal routines and opportunities. As such, disrupting path dependences supporting opportunities for corruption is, therefore, feasible by neutralising possible symptoms of malfeasances through the ‘cognitive radars’ represented by risk performance drivers.

In the case of Cerda, the community’s perception of the *government stability* represents a first challenge to win through the promotion of a decisive cultural change, led by local politics, towards a sound public management. Indeed, the current situation of financial distress call for a substantial intervention in the administrative apparatus to enhance internal communication and routines. In particular, the Municipality requires adequate investments in ICTs and HR training aimed at guaranteeing a continuous information-sharing flow and strengthening the civil servants’ expertise, accountability and, ultimately, ethics, thus creating physiological *internal routines* able to avert individualistic and structural likelihoods of corruption in procurement.

Pervasive managerial culture plays a fundamental role. Although politicians and public managers are fundamental to boost supportive organisational climate and mutual control, encouragement to a broader inclusiveness of the personnel should be incentivised, in order to maintain a physiological degree of discretion and decision-making autonomy based on self-knowledge about the negative outcomes of procurement corruption.

6.7 Fostering professionalism and e-procurement: A policy suggestion

In principle, environments being culturally susceptible to inappropriate practices and historically characterised by social scourges, such as organised crime, are not necessarily doomed to suffer as a result of unfavourable heritage. In other terms, it is absolutely false to claim that corruption and

the belief that it cannot be subdued are unavoidable in specific cultural legacies (Ferrante & Vannucci, 2017: 17).

Restoring a physiological economic and financial equilibrium in the local Body is just the final step of the overall intervention to put in place. As primary endogenous causes of the financial distress of Cerda Municipality, the investigated behaviours were allowed by poor knowledge dissemination and internal communication due to the lack of an integrated information system and sustained learning processes, as well as a myopic management view based on isolated compartments of organisation.

Considering that knowledge is dynamic and learning is non-linear (Baets, 2005: 21), especially in a complex environment, policy- and decision-making cannot be left to improvisation. Under a holistic perspective, the intervention should be designed in terms of knowledge management, which underlies an intentional and systematic approach that selects, synthesises, archives, organises and transfers relevant information (Bergeron, 2003: 8-9), in order to add value to the organisational mission by integrating people, content, processes and technology (American Productivity & Quality Center, 2003).

Knowledge is also for innovating. Innovation management lies on the capability of an organisation to capture even weak endogenous or exogenous signals and use creativity to trigger the needed change, whose effect usually results in new kinds of output and/or process. Specifically, innovation represents a discontinuous change and, as such, a visible break with the past (Osborne & Brown, 2005: 5). This, of course, calls policy- and decision-makers for, firstly, understanding and critically evaluating the current environmental and organisational situation and, secondly, triggering the needed change through *hard technologies*, mainly represented by organisational structures and equipment, and *soft ones*, which include processes, professional and managerial skills and accountability (2005: 19). Above all, change in beliefs, ideas, value bases, expectations and inclinations take on great importance in the overall compromise between institutional, governance, political and administrative arrangements (2005: 75-76).

Based on what above, some worldwide experiences may inspire effective and feasible policy suggestions to enhance professionalism and e-procurement.

As a part of the 'Zero-Tolerance for Corruption' policy programme adopted by the mayor of La Paz, in Bolivia, a significant cultural change was made possible by promoting initiatives aimed to: create *sense of institution and pride in public officials*; restore the Municipality's image,

transparency and accountability; and establish clean governance (Zúñiga & Heywood, 2015: 2). In particular, the Del Granado's administration created a 'Transparency Unit' to deal with anti-corruption through a series of tools for whistleblowing, a 'Continuous Improvement Units' to catalyse bureaucratic procedures and, in order to get back its credibility, adopted a series of measures to guarantee competition in public contracting and tendering, so as to ensure supervision of public works in terms of material quality and deadlines and set out to appoint public officials by considering their performance instead of clientelist practices (2015: 2-4).

Likewise, the city management of Šal'a, in Slovakia, gave particular emphasis to e-procurement and online publication of: forms; in-force regulation; contracts; accounting documents; information about costs related to municipal employees; the personnel and managers' contact details; a system for requesting any kind of information relevant to procurement activity of the local Government (Jacko, 2016: 122-123).

Of course, to shock a challenging system requires adequate expertise, and policy- and decision-makers of Cerda Municipality are not expected to react alone. As the Ukrainian mayor did in the Municipality of Lviv, two consultants were taken on to instruct the city government employees in integrity, in a way to hinder some 'short circuits' within the bureaucratic machinery and reduce the risk of anomalies within the local Government (Lozovsky, 2015: 6).

In this perspective, the Municipality also needs to strengthen its financial management system and counteract tax avoidance for restoring a physiological economic-financial equilibrium. Tax collection was disregarded in Cerda over the last 30 years, and this has contributed to compromise its capability to financially cover the essential public service expenditures. Indeed, the Municipality has never designed effective public policies aimed at recovering its receivable credits (Public Official #4, 2019).

To support a possible fiscal recovery programme as that promoted in La Paz (Zúñiga & Heywood, 2015: 2), an improvement of local tax collection can be found in SMART technologies. Some experiences around the world are witnesses of solving proposals against tax avoidance. For instance, some municipalities in Ecuador improved by 80% their tax collection by adopting such technologies (URAIA, 2017: 21).

A coercive procedure may guarantee a successful tax collection in Cerda, but it may reduce the trust in local politics by citizens. Hence, to implement a strategy of external communication of value for money creation may result useful to boost citizens' trust in the local Government by

ensuring higher transparency and accountability. Notably, promoting a balanced involvement of expertise from different fields of knowledge and citizen participation, building trust through communication with citizens may strengthen the municipal planning and development (URAIA, 2017: 22).

Resuming, in order to improve the accounting system, internal controls and tax collection, the policy here suggested is to modernise tax administration by means of system integration of accounting, treasury and purchase making use of ICTs – see POLICY_1, Appendix B. In addition, in line with a research conducted by Kwon (2014), to budget training and integrity programmes may promote intrinsic motivation, best practices, a renewed sense of institutions and pride for the office held, as deterrent of unruly use of entrusted public power – see POLICY_2, Appendix B.

The policy model simulation results are showed in Figure 6.8, Table 6.13 and Table 6.14.

6.8 Concluding remarks

Corruption is clandestine and strongly related to socio-cultural structures of communities. Informational quality provided by red-flags may benefit from the integration of dynamic indicators constituting transient signals of possible illegal insinuations within a systemic and comprehensive framework.

Accordingly, by means of a representative case-study of an Italian municipality, an outcome-based DPM approach allowed to explain the causal relationships between past corruption in public procurement and local government performance over time. Framing KPIs adjusted by a risk component within a systemic cause-and-effect structure of performance management enables policy- and decision-makers:

- to isolate heterogeneous causes of corruption along the procurement process and enhance the explicative capability of red-flags;
- to identify what strategic resources to deploy in order to control risk of corruption and elucidate relevant internal responsibilities in a logic of prevention;
- to keep track of the effects on organisational systems of uncontrollable environmental ‘shocks’ and possible cultural distortions undermining the regularity of procurement.

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

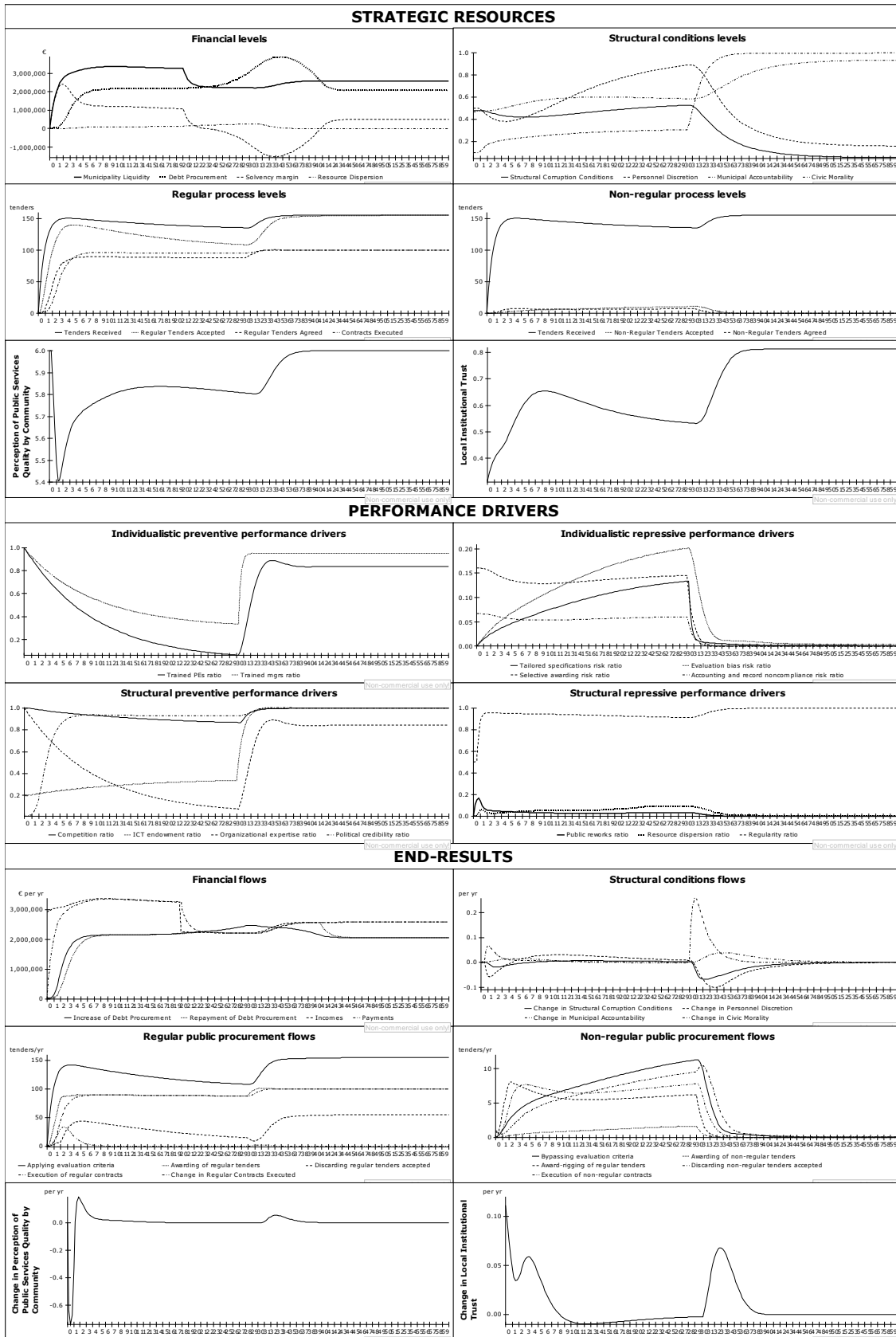


Figure 6.8. Simulation of the possible impacts of the procurement policy implementation in TIME = 30. Period 1990-2050.

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

Table 6.13. Policy run: the values of the main stocks. Period 2020-2050.

Time	Tenders Received	Regular Tenders Accepted	Non-Regular Tenders Accepted	Regular Tenders Agreed	Non-Regular Tenders Agreed	Contracts Executed	Public Reworks	Procurement Cost	Resource Dispersion	Debt Procurement	Municipality Liquidity	Perception of Public Services Quality by Community	Local Institutional Trust	Personnel Discretion	Municipal Accountability	Civic Morality	Structural Corruption Conditions
year	tender							EUR/tender	EUR			dimensionless					
30	135.6341	108.8257	11.1253	88.1083	7.7604	95.8078	3.1567	19,148.3902	257,890.0576	3,057,418.7688	2,208,979.2965	5.8050	0.5329	0.8884	0.3077	0.5881	0.5285
31	136.0296	109.1163	10.9228	92.0369	5.7634	96.2331	3.0301	19,040.6600	265,833.9770	3,320,103.7484	2,206,796.7753	5.8033	0.5370	0.8896	0.4666	0.5876	0.5223
32	142.5805	116.7648	8.6406	97.3942	2.8001	98.1610	2.1648	18,032.5769	219,188.7812	3,565,902.0047	2,223,236.1007	5.8248	0.5754	0.8492	0.6953	0.5938	0.4682
33	148.7686	129.8905	5.3869	99.8136	1.1347	99.8705	1.2092	17,489.3775	140,608.6094	3,754,091.2275	2,275,749.9182	5.8740	0.6392	0.7682	0.8356	0.6139	0.3999
34	152.2260	140.9616	2.8524	100.4051	0.4176	100.5935	0.5735	17,235.8079	79,261.9385	3,866,114.5028	2,352,439.9240	5.9240	0.7042	0.6684	0.9127	0.6457	0.3373
35	153.8825	147.6088	1.4616	100.3642	0.1456	100.6507	0.2439	17,124.9224	41,919.6742	3,888,590.7900	2,429,967.5510	5.9597	0.7541	0.5709	0.9545	0.6832	0.2834
36	154.6570	150.8787	0.8508	100.2179	0.0492	100.4711	0.0962	17,076.1950	21,998.1263	3,822,890.0631	2,491,829.3792	5.9805	0.7854	0.4877	0.9767	0.7214	0.2384
37	155.0418	152.3433	0.5978	100.1098	0.0163	100.2817	0.0360	17,053.1649	12,105.4503	3,679,127.3484	2,533,055.7473	5.9912	0.8018	0.4218	0.9880	0.7569	0.2019
38	155.2570	153.0424	0.4678	100.0501	0.0053	100.1498	0.0130	17,040.7886	7,313.4070	3,467,961.4542	2,556,594.9566	5.9963	0.8089	0.3709	0.9936	0.7881	0.1730
39	155.3936	153.4662	0.3746	100.0214	0.0017	100.0735	0.0046	17,033.1341	4,941.5352	3,195,552.8776	2,568,237.8233	5.9985	0.8114	0.3314	0.9962	0.8147	0.1503
40	155.4893	153.7909	0.2977	100.0087	0.0006	100.0339	0.0016	17,027.8586	3,686.3398	2,862,046.2917	2,573,286.6864	5.9994	0.8121	0.3001	0.9976	0.8369	0.1325
41	155.5602	154.0629	0.2352	100.0034	0.0002	100.0150	0.0005	17,023.9716	2,953.3287	2,463,649.9423	2,575,311.8528	5.9998	0.8124	0.2746	0.9983	0.8552	0.1183
42	155.6148	154.2905	0.1865	100.0013	0.0001	100.0064	0.0002	17,020.9933	2,478.5227	2,219,713.4823	2,576,217.4721	5.9999	0.8127	0.2536	0.9987	0.8702	0.1068
43	155.6577	154.4766	0.1499	100.0005	0.0000	100.0026	0.0001	17,018.6533	2,143.4159	2,122,851.6567	2,576,794.9570	6.0000	0.8131	0.2363	0.9990	0.8825	0.0974
44	155.6920	154.6263	0.1228	100.0002	0.0000	100.0011	0.0000	17,016.7827	1,892.1674	2,084,313.0739	2,577,269.1670	6.0000	0.8134	0.2220	0.9992	0.8926	0.0898
45	155.7198	154.7461	0.1028	100.0001	0.0000	100.0004	0.0000	17,015.2698	1,696.3534	2,068,917.0048	2,577,657.0396	6.0000	0.8136	0.2103	0.9994	0.9009	0.0835
46	155.7424	154.8423	0.0878	100.0000	0.0000	100.0002	0.0000	17,014.0378	1,540.1434	2,062,715.1404	2,577,940.8471	6.0000	0.8137	0.2007	0.9995	0.9077	0.0783
47	155.7608	154.9200	0.0766	100.0000	0.0000	100.0001	0.0000	17,013.0314	1,413.8868	2,060,175.2574	2,578,122.6156	6.0000	0.8138	0.1929	0.9996	0.9132	0.0741
48	155.7759	154.9831	0.0680	100.0000	0.0000	100.0000	0.0000	17,012.2089	1,311.1697	2,059,101.5338	2,578,224.3096	6.0000	0.8138	0.1866	0.9996	0.9177	0.0707
49	155.7883	155.0346	0.0613	100.0000	0.0000	100.0000	0.0000	17,011.5370	1,227.3815	2,058,621.0867	2,578,274.0135	6.0000	0.8138	0.1814	0.9997	0.9214	0.0679
50	155.7983	155.0767	0.0562	100.0000	0.0000	100.0000	0.0000	17,010.9886	1,158.9930	2,058,385.8125	2,578,295.4063	6.0000	0.8138	0.1772	0.9997	0.9244	0.0656
51	155.8065	155.1111	0.0521	100.0000	0.0000	100.0000	0.0000	17,010.5413	1,103.1874	2,058,255.9528	2,578,303.9812	6.0000	0.8138	0.1738	0.9998	0.9269	0.0637
52	155.8132	155.1391	0.0489	100.0000	0.0000	100.0000	0.0000	17,010.1766	1,057.6680	2,058,174.6225	2,578,307.8818	6.0000	0.8138	0.1710	0.9998	0.9289	0.0622
53	155.8187	155.1621	0.0464	100.0000	0.0000	100.0000	0.0000	17,009.8793	1,020.5488	2,058,118.0385	2,578,310.4443	6.0000	0.8138	0.1687	0.9998	0.9305	0.0610
54	155.8231	155.1807	0.0444	100.0000	0.0000	100.0000	0.0000	17,009.6368	990.2824	2,058,075.7579	2,578,312.5854	6.0000	0.8138	0.1669	0.9998	0.9318	0.0600
55	155.8268	155.1960	0.0428	100.0000	0.0000	100.0000	0.0000	17,009.4391	965.6025	2,058,042.8101	2,578,314.3480	6.0000	0.8138	0.1653	0.9998	0.9329	0.0591
56	155.8297	155.2084	0.0415	100.0000	0.0000	100.0000	0.0000	17,009.2779	945.4764	2,058,016.5477	2,578,315.6428	6.0000	0.8138	0.1641	0.9998	0.9338	0.0585
57	155.8321	155.2185	0.0405	100.0000	0.0000	100.0000	0.0000	17,009.1464	929.0626	2,057,995.3699	2,578,316.4764	6.0000	0.8138	0.1631	0.9998	0.9345	0.0579
58	155.8341	155.2268	0.0397	100.0000	0.0000	100.0000	0.0000	17,009.0391	915.6760	2,057,978.1934	2,578,316.9469	6.0000	0.8138	0.1623	0.9998	0.9351	0.0575
59	155.8357	155.2335	0.0390	100.0000	0.0000	100.0000	0.0000	17,008.9516	904.7583	2,057,964.2225	2,578,317.1803	6.0000	0.8138	0.1616	0.9998	0.9356	0.0571
60	155.8370	155.2390	0.0384	100.0000	0.0000	100.0000	0.0000	17,008.8803	895.8545	2,057,952.8436	2,578,317.2833	6.0000	0.8138	0.1611	0.9998	0.9360	0.0568

Analysing Outcomes of Corruption in Public Procurement through Dynamic Performance Management

Table 6.14. Policy run: the values of the performance drivers. Period 2020-2050.

Time	Trained mgrs ratio	Tailored specifications risk ratio	Trained PEs ratio	Evaluation bias risk ratio	ICT endowment ratio	Selective awarding risk ratio	Accounting and record noncompliance risk ratio	Competition ratio	Public reworks ratio	Resource dispersion ratio	Organizational expertise ratio	Regularity ratio	Political credibility ratio
year	dimensionless												
30	0.3367	0.1336	0.0635	0.2015	0.3379	0.1460	0.0610	0.8678	0.0329	0.0876	0.0775	0.9137	0.9288
31	0.8863	0.0226	0.2081	0.1684	0.7905	0.0456	0.0191	0.9030	0.0315	0.0839	0.2429	0.9146	0.9340
32	0.9490	0.0091	0.5091	0.0936	0.9337	0.0129	0.0054	0.9600	0.0221	0.0762	0.5316	0.9287	0.9608
33	0.9522	0.0073	0.7404	0.0423	0.9790	0.0035	0.0015	0.9818	0.0121	0.0577	0.7513	0.9510	0.9868
34	0.9524	0.0061	0.8563	0.0197	0.9934	0.0009	0.0004	0.9896	0.0057	0.0375	0.8613	0.9710	1.0002
35	0.9524	0.0051	0.8872	0.0130	0.9979	0.0002	0.0001	0.9929	0.0024	0.0223	0.8906	0.9844	1.0041
36	0.9524	0.0043	0.8772	0.0119	0.9993	0.0001	0.0000	0.9945	0.0010	0.0126	0.8810	0.9918	1.0037
37	0.9524	0.0037	0.8572	0.0117	0.9998	0.0000	0.0000	0.9955	0.0004	0.0071	0.8621	0.9954	1.0025
38	0.9524	0.0031	0.8419	0.0111	0.9999	0.0000	0.0000	0.9962	0.0001	0.0041	0.8475	0.9971	1.0014
39	0.9524	0.0027	0.8341	0.0102	1.0000	0.0000	0.0000	0.9968	0.0000	0.0026	0.8402	0.9979	1.0007
40	0.9524	0.0024	0.8321	0.0091	1.0000	0.0000	0.0000	0.9972	0.0000	0.0018	0.8382	0.9984	1.0003
41	0.9524	0.0021	0.8327	0.0081	1.0000	0.0000	0.0000	0.9976	0.0000	0.0014	0.8388	0.9988	1.0001
42	0.9524	0.0019	0.8340	0.0072	1.0000	0.0000	0.0000	0.9978	0.0000	0.0013	0.8401	0.9990	1.0001
43	0.9524	0.0018	0.8350	0.0065	1.0000	0.0000	0.0000	0.9980	0.0000	0.0011	0.8411	0.9992	1.0000
44	0.9524	0.0016	0.8356	0.0060	1.0000	0.0000	0.0000	0.9982	0.0000	0.0010	0.8416	0.9994	1.0000
45	0.9524	0.0015	0.8357	0.0056	1.0000	0.0000	0.0000	0.9984	0.0000	0.0009	0.8417	0.9995	1.0000
46	0.9524	0.0014	0.8357	0.0052	1.0000	0.0000	0.0000	0.9985	0.0000	0.0008	0.8416	0.9996	1.0000
47	0.9524	0.0013	0.8356	0.0050	1.0000	0.0000	0.0000	0.9986	0.0000	0.0008	0.8416	0.9996	1.0000
48	0.9524	0.0013	0.8355	0.0047	1.0000	0.0000	0.0000	0.9986	0.0000	0.0007	0.8415	0.9997	1.0000
49	0.9524	0.0012	0.8355	0.0045	1.0000	0.0000	0.0000	0.9987	0.0000	0.0006	0.8415	0.9997	1.0000
50	0.9524	0.0012	0.8355	0.0044	1.0000	0.0000	0.0000	0.9988	0.0000	0.0006	0.8415	0.9998	1.0000
51	0.9524	0.0012	0.8355	0.0043	1.0000	0.0000	0.0000	0.9988	0.0000	0.0006	0.8415	0.9998	1.0000
52	0.9524	0.0011	0.8355	0.0042	1.0000	0.0000	0.0000	0.9988	0.0000	0.0005	0.8415	0.9998	1.0000
53	0.9524	0.0011	0.8355	0.0041	1.0000	0.0000	0.0000	0.9989	0.0000	0.0005	0.8415	0.9998	1.0000
54	0.9524	0.0011	0.8355	0.0040	1.0000	0.0000	0.0000	0.9989	0.0000	0.0005	0.8415	0.9998	1.0000
55	0.9524	0.0011	0.8355	0.0040	1.0000	0.0000	0.0000	0.9989	0.0000	0.0005	0.8415	0.9998	1.0000
56	0.9524	0.0011	0.8355	0.0039	1.0000	0.0000	0.0000	0.9989	0.0000	0.0005	0.8415	0.9998	1.0000
57	0.9524	0.0011	0.8355	0.0039	1.0000	0.0000	0.0000	0.9989	0.0000	0.0005	0.8415	0.9998	1.0000
58	0.9524	0.0010	0.8355	0.0039	1.0000	0.0000	0.0000	0.9989	0.0000	0.0005	0.8415	0.9998	1.0000
59	0.9524	0.0010	0.8355	0.0038	1.0000	0.0000	0.0000	0.9990	0.0000	0.0004	0.8415	0.9998	1.0000
60	0.9524	0.0010	0.8355	0.0038	1.0000	0.0000	0.0000	0.9990	0.0000	0.0004	0.8415	0.9998	1.0000

Coherently with what emerged in Chapter 3, capturing the dynamics and effects of the environmental civic morality may help key-actors to promptly recognise hardly-identifiable context-dependent malfeasances, to single them out from passive waste cases and react to them timely in a logic of prevention. This may also intervene where mechanistical control fails to capture actual presence of corrupt dynamics in public procurement and provide decision-makers with prompt alerts arising from the emergent but clandestine corrupt practices.

In particular, fostering civic morality by leveraging on ICT and personnel training to enhance efficiency, governmental stability and transparency is the key to:

- reduce resource dispersion;
- persuade providers to refuse corruption;
- increase procurement process regularity;
- improve service quality;
- foster physiological political consensus;
- enhance trust in government and restore normal tax chargeability.

In the Cerda case, poor managerial culture created fertile ground for the maladministration events of the early 2000s, which, impacting on the regular execution of the procurement process, contributed to the current financial distress. The enhancement of digital procurement, accounting technologies and personnel training may foster the organisational performance in terms of better expertise, accountability, internal communication, as well as reciprocal and self-control against corruption risks in procurement.

Albeit to fix lack of adequate structural digitalisation through ICT updates does not encounter insurmountable difficulties, skills for competence and integrity are also a matter of value system, cultural beliefs, personal expectations on the retrievable benefits and motivations. They are not stand alone and often represent the result of specific path dependencies to take into account in arranging interventions in such a sense.

In Chapter 5, some information emerged in relation to the HRM practices and their significant reflections on the second dissolution for mafia infiltrations of the city Council of Cerda in 2006. Indeed, the total inexistence of professional and integrity training fostered the discussed dormant and unruly internal routines, which manifested themselves as the Municipality was getting out of its first commissarial management. Thus, the following chapter deepens those events, attempting to gain further insights in singling out 'active' from 'passive' waste.

CHAPTER 7

FIDUCIARY PRACTICES IN HUMAN RESOURCE MANAGEMENT: AN OUTCOME-BASED DYNAMIC PERFORMANCE MANAGEMENT VIEW¹

7.1 Introduction

As it was argued in Chapter 2, corruption always reflects context-specific characteristics and dynamics (Lambsdorff & Schulze, 2015). However, even though its impacts are rather evident, the underlined cause-and-effect relationships are not always clear in particular areas of public administration, and side effects may even stem from practices being compliant with law. This makes more difficult to single ‘active’ waste out from the ‘passive’ one.

As it was corroborated in Chapter 5 and stressed in Chapter 6, the poor financial status certified for Cerda Municipality disclosed past inherent managerial and operational issues linked to its personnel’s expertise, which led to underperforming routines along the procurement process in the early 2000s. In fact, those issues were found by the Authorities on the occasion of both the two dissolutions for mafia-like infiltrations and, finally, confirmed by the convergent interviews with the five Public Officials held in 2019.

More precisely, the dearth of skills for competence have roots that are previous to the second disbandment of the local Authority in 2006 (Public Official #5, 2019), and this may better explain the events linked to public procurement analysed in Chapter 6.

Coherently with the neo-institutional point of view (Vannucci, 2012, 2015), specific governance structures and mechanisms of local governments may facilitate political fiduciary practices in HRM which, enabled by rooted cultural values that neutralise moral barriers and exploit opportunities of regulatory provisions over time, do not consider long-term impacts on public performance.

To better operationalise the critical policy lever related to the municipal training capacity suggested in Chapter 6, this part the thesis aims to explain the dynamic relationships between some legal practices in HRM and underperformance at local government level over time, by means of an outcome-based DPM approach (Bianchi, 2016).

¹ This chapter is based on the conference paper titled: ‘Political Patronage in a Small Italian Local Government: A Dynamic Performance Management Approach on Fiduciary Practices’, presented during the thirty-eighth International System Dynamics (virtual) Conference (ISDC) 2020, held between the 19th and the 24th of July.

Two sub-questions are here addressed: *To what extent did the events of the first dissolution for mafia-like infiltrations influence the HR endowment of Cerda Municipality? What are the related outcomes and how to deal with them?*

After a recall of the relevant information of this part of the problem, a literature overview on patronage is provided. Then, the dynamic hypotheses of the mentioned issue lay the foundations for a DPM chart, which is supported by a CLD and a model simulation through an SFD. Differently from the previous chapter, the approach in building the DPM chart is here not *bottom-up*, but *top down*, in order to guarantee a better clarity of explanation in emphasising its complementarity with the model of Chapter 6. Indeed, the following formal model is intended to probe the magnitude of those facts in relation to the main problem at hand.

7.2 Problem statement: The resilience of political fiduciary practices

Between the end of the '80s and the beginning of the '90s, “the clear proximity of the administrators with the organised criminality [caused] a serious prejudice to the public safety status”², provoking the first dissolution of the Municipality in 1991. More precisely, it emerged that

“the city council [... experienced] direct and indirect links between part of the members of the assembly and the organised criminality [... which exposed] the administrators themselves to pressing conditioning, by compromising the self-determination of the elected body, the sound administration of Cerda, and the regular functioning of the services entrusted to it”³.

The first dissolution had strict political reasons, but its echo affected the following ruling class (Public Official #3, 2019; Public Official #5, 2019). Legal precautionary measures were adopted, especially internal rotations of managerial roles, and “some politicians were left out by [local] politics, but this paradoxically created the lack of an able ruling class that led to the events of the early 2000s” (Public Official #5, 2019).

Coherently with that, as it emerges from the judgements and the interviews discussed in the previous chapters, the Municipality has suffered lack of professionalism since before the dissolution of 2006.

² D.P.R. 30 September 1991, published in the Italian Official Journal no. 231 of 02-10-1991, p.1.

³ *Ibidem*.

Moreover, some top duties have been gradually emptied of holders over time due to retirements, and disparate national reforms on public employment⁴ have made personnel turnover impossible for the local Body, because of the passing of some limits linked to the employed personnel:

“In some municipal areas, there were high titled and qualified people as managers, but it was not possible to make a turnover and the Municipality could just appoint those who it already had in its staff, by using the so-called ‘spoils system’. The lack of coverage of managerial roles through competitive procedures implies that politics periodically manages and decides who has to be in charge in certain areas.” (Public Official #5, 2019).

With this regard, as stated by the Public Official #3 (2019):

“It all started between the late 90s and the early 2000s. Politics made a mistake and began to make patronage. Politics became convinced that it could administer the public thing as if it was it’s a private company. So, some roles were given in the PA without any requirement of skills for competence. Some civil servants were inadequate, as they were legitimised not by meritocracy, skills and adequacy to the role, but rather by the legitimacy of pleasure of politics according to a fiduciary relation.”

As in many other small realities, the local politics has appointed from its own staff by means of the ‘spoils system’ (Public Official #3, 2019; Public Official #4, 2019; Public Official #5, 2019). This mechanism is a legitimate practice, provided by the Italian law⁵, which allows political powers to appoint apical public officials with the aim to guarantee a harmonious administration with *pro tempore* politicians.

However, the officials appointed by politics had acquired ruling supremacy over time, allowing for the facts of the early 2000s (Public Official #5, 2019).

⁴ For the Italian regional and local governments, the most important regulatory provisions were: the law 27 December 2006, no. 296, published in the Italian Official Journal no. 299 of 27-12-2006; the decree-law 24 June 2014, no. 90, published in the Italian Official Journal no. 144 of 24-06-2014; the law 28 December 2015, no. 208, published in the Italian Official Journal no. 302 of 30-12-2015.

⁵ The mechanism of ‘spoils system’, introduced by the law 25 March 1993, no. 81, published in the Italian Official Journal no. 72 of 27-03-1993, and regulated by the law 15 July 2002, no. 145, published in the Italian Official Journal no. 172 of 24-07-2002, allows Italian mayors to directly appoint individuals, also belonging to the existing municipal staff, for the coverage of executive positions.

In addition, the impasse created in public hiring due to austerity of national reforms may somehow be linked to past unsustainable practices in HRM. Indeed, with reference to the dissolution of 1991, some individuals were “well-inserted in the political and administrative context [such that, in the local elections, they got] a significant number of votes that [allowed them] to arbitrarily steer within the administration”⁶. Bridging this fact with the dissolution of 2006, from the related decree it emerges that:

“the existence of contamination factors of the administrative action of the public body due to the influence of the organized criminality [highlighted] how, over time, the distorted use of the public thing materialised in favouring individuals directly or indirectly linked to criminal environments. [... Also, the] interference in the affairs of the public body and the manipulation of the administrative choices result[ed] favoured by an impenetrable and complex network of family, kin and friendships relations, and frequentations which connect[ed] some members of the City Board and Council, as well as of the bureaucratic apparatus to exponents of the local criminal factions or to individuals close to them”⁷.

7.3 A literature overview of fiduciary practices: Italy at a glance

Patronage is “the giving of help or a job to someone in return for their support” (Oxford English Dictionary, 2012e: 526). It is commonly considered as a dyadic exchange characterised by a particularistic and private relationship between actors of unequal power and status, based on a self-regulated principle of reciprocity (Kaufman, 1974).

Its meaning is straightforward and extremely similar to those of clientelism⁸, nepotism and cronyism. Contrarily, knowledge about the functions of patronage is little (Bearfield, 2009: 64) and, because of lack of data, the general tendency is to give for granted its conventional suppositions, based on political folklore, professional consensus and personal judgement (Sorauf, 1960: 28).

Although it was questioned the absolute negativity of patronage (Sorauf, 1956) and emphasised its capacity to trigger desirable outcomes, such as achieving egalitarian goals and

⁶ D.P.R. 30 September 1991, published in the Italian Official Journal no. 231 of 02-10-1991, Attachment no. 1, p. 1.

⁷ D.P.R. 12 December 2006, published in the Italian Official Journal no. 301 of 29-12-2006, Attachment no. 1, p. 1.

⁸ On the definition of ‘clientelism’, cf. Goodin, R. E. & Stokes, S. C. 2013. *Political Clientelism*: Oxford University Press.

bridging political divisions (Bearfield, 2009), most of the literature on patronage considers it undesirable.

According to an anthropological perspective, public administration studies have mainly labelled patronage as a socio-economic evil, hinged on political mechanisms and dynamics (Bearfield, 2009: 66) characterised by mutuality between 'patron' and 'client' (Boissevain 1966; Roniger, 2004).

Since the 1960s, the Italian political system has been characterised by resilient clientelism (Arloff, 2012) and restricted powerful circles at any territorial level (Breccia & Focardi, 2019: 479-480). Albeit clientelist recruitment is not allowed by the national regulation, political appointing for fulfilling executive roles is part of changes in public management during periods of retrenchment of public expenditure (Raudla et al., 2013: 24) and it has been recently reinterpreted as a resource for good governance (Ferri & Zan, 2019). Moreover, as a strategy of crisis management (Boin, 't Hart, Stern, & Sundelius, 2005), this practice is adopted by governments with the aim to advocate decision-making powers and strengthening political control (Peters & Pierre, 2004), especially when organisational departments are not prone to implement them voluntarily (Behn, 1978; Heffron, 1989; Levine, 1985).

Nevertheless, in many realities, political appointing may give birth to forms of patronage (Flinders & Matthews, 2010), as it has been argued by some scholars, such as Di Mascio (2014), Grzymala-Busse (2008) and Kopecký and Scherlis (2008). Very often, fiduciary practices allow politics to hand out public jobs in order to gain consensus among citizens in view of elections (Weingrod, 1968: 379), thus causing the employment and promotion of incompetent civil servants (Stillman, 1977: 507) and causing a visible gap in the levels of clerical competence and professionalism (Sorauf, 1960: 28).

Emphasising myopic and individualistic benefits, political favouritism mortifies broader categorial interests (Kaufman, 1974: 303) and exacerbates proneness of specific environments to further corrupt actions (Minkova, 2018: 6). In particular, it is commonly recognised that forms of cronyism, clientelism or nepotism may drastically impact on HRM of local governments, such that poor public outputs and outcomes, especially the high-value ones, may stem from lack of expert administrative personnel (Minkova, 2018: 7).

Since patronage and other forms of favouritism are able to change markedly in terms of magnitude, scope, length of time and resources deployed, a system view may help to include factors being not directly linked to it, but whose consideration is essential in the analysis of the phenomenon (Kaufman, 1974: 289, 293).

7.4 The dynamic hypotheses and the model structure

Because of record management issues and statistical insignificance of job replacement and turnover indicators provided by ISTAT (2020b), the insiders of the municipal Personnel Office (pers. comm.) constituted the main historical quantitative data source on HR. Accordingly, the municipal personnel gradually decreased over the last decades and, nowadays, the overall staff is composed by 84 public employees, covering low- and medium-specialised public positions, and four heads of department, representing the executive team. Moreover, the Municipality registers a dozen of redundancies and the investments in the personnel's training programmes appear inadequate – see ISTAT (2020b) and SIOPE (2020).

Based on what above, building on the relevant variables of the procurement model of Chapter 6, the categories of Mgrs. and PEs are here divided into *trained* and *non-trained*, where only the former group identifies public workers with proved skills for competence. Nonetheless, the overall workforce can either improve or make worse its professionalism over time, thus modifying the internal composition of both the categories in function of the Municipality's training capacity and the time that competence itself takes to fade, respectively.

On the concepts of 'trained' and 'non-trained' Mgrs. and PEs, as well as on the degree of complexity that they imply, some clarifications are needed, especially in order to emphasise the fundamental link with the model discussed in Chapter 6.

In line with the Simons' conceptualisation of 'diagnostic' and 'interactive control' systems (2007a, 2007b), leveraging critical performance drivers and wisely attempting to face strategic uncertainty that they perceive, managers should prove to own demiurge-like stance, which enables them to identify and interpret both the outstanding and the possible evolutionary paths of the environment where they actually operate, in order to steer the organisational action sustainably towards a better holistic performance.

Pragmatically, it means for them to be able to acquire relevant knowledge and sufficient awareness about what is proved to be effective in relation to the problem they are dealing with, which requires continuous practice, re-thinking of their beliefs and adaptation of their management capabilities (Forrester, 1992; Pfeffer & Sutton, 2006). Moreover, under a system view, it implies to guarantee integrity in organisational operations and personnel's behaviour, as well as to cope with deriving risks appropriately (Minkova, 2018: 7).

Therefore, managers' competences should not just be bounded to apply and enforce regulation accurately, so as to make them look like mere bureaucrats. Contrarily, they ought to activate personal dialogue, foster internal debate and enable information sharing within the

organisation for which they are accountable beyond the typical communication channels (Simons, 2007b: 6).

For such reasons, organisational culture, governance structures and underlying routines are at the base of their decision-making activity for achieving better results. These elements constitute the fundamental knowledge, on the one hand, to detect extant and possible system vulnerabilities to inappropriate behaviours throughout the organisation and, on the other hand, to intervene effectively where needed, both in a preventive and in a repressive prospect.

In other terms, managers are asked to own and capitalise marked leadership qualities to set feasible strategies up in line with a clear – often highly-political – vision (Behn, 1998: 209-212), especially when resource availability does not result such as to fully address the citizens' needs properly (Morgan & Watson, 1992: 438); even more where consolidate governance mechanisms may allow for unfair practices.

Likewise, municipal staff is not just asked to strictly respect protocols and top-down newsletters, neither to accomplish its public duty without any thoughtful consideration of the likely outcomes of its work. As pointed-out by the Public Official #4 (2019):

“civil servants are no longer formed or do not want to form. Civil servants are no longer interested in training, but rather in well-using management software for PAs. Employees now operate according to what the software commands.”

Of course, as already seen in the previous chapters, highly-bureaucratized contexts – such as the Italian one – may limit the action scope and the discretion of civil servants. Nevertheless, significant levels of bureaucracy may create chances for inappropriate behaviours, exactly as excessive discretionary power (Minkova, 2018: 7), which leads to corruption risks in the case of scarce transparency and staff's involvement in decision-making processes (Heggstad & Frøystad, 2011: 14).

It emerges how a possible trade-off between bureaucracy and discretion should be sought, on the one hand, in a better social integration and organisational – internal and external – communication, as well as in an increased personnel's participation in decision-making processes (Hellweg & Phillips, 1982).

As showed in the previous chapter, this requires an improvement of their professionalism and integrity to recognise possible anomalies and engage themselves in reciprocal formal and informal control. Of course, this is also crucial in regard to managers and

between managers themselves, according to an approach going beyond mere hierarchical public charges and, instead, triggering the widest inclusion mechanisms aimed at either warding off or preventing risk of corruption within public realities promptly.

Closing this opportune digression, the dynamic hypotheses underlying the model structure of this sub-part of the main problem are described below.

The feedback structure related to the creation and fulfilment of job vacancies⁹ are essentially inspired to the Sterman's (2000: Chapter 19) model on the labour supply chain. Therefore, for the sake of simplicity, the related feedback loops are here ignored, since their contribution to the model behaviour does not provide for interesting insights on the most important dynamics linked to the problem at hand.

As for the previous model, inspired to the PRA¹⁰, the dynamic hypotheses of the problem are revolved around the concept of corruption intended as the *gap* between the actual and a desired situation and, with respect to a system or a process, it is modelled as a risk measured by the multiplication between the occurrence probability and its impact (McDevitt, 2011: 1). As such, provided that performance drivers are essentially given by the comparison between the actual level of stocks and opportune benchmarks (Bianchi, 2016), multiplying performance drivers linked to fiduciary practices by risk factors – thus bringing about first-level performance drivers – provides for insights on the extent to which their variations are attributable to corruption. As the risk factor equals its maximum score, a considered performance gap is likely to be ascribable to corrupt behaviours, and vice versa.

Accordingly, the 'Clientelism risk ratio' acts as a sorting rule along the recruitment process that shapes the internal composition of the PE category. It is a dimensionless multiplier representing a first-level performance driver linked to political trust of community. Indeed, public employment constitutes an important opportunity for local politicians to boost their public consensus and, as a result, a possible gap in the perceived political trust is likely to push them to create pressure for over-employment (Cosenz, 2010), and vice versa. If the second-level performance driver 'Political trust ratio', measuring the cognitive process of awareness of public consensus by politicians, equals '1' there is no reason to recur to cronyism to gain notoriety, and vice versa:

⁹ These are enclosed by the two sectors 'Managerial Endowment' and 'Personnel Endowment' of Figure 7.3.

¹⁰ Cf. Stamatelatos, M. 2000. Probabilistic Risk Assessment (PRA). In NASA (Ed.), vol. 00-002: Office of Safety and Mission Assurance (OSMA), NASA Headquarters.

$$[1] \textit{ Clientelism risk ratio} = (1 - \textit{ Political trust ratio}) * \frac{\textit{ Probability of corruption in recruiting} * \textit{ Weight of corruption in recruiting}}{\textit{ Maximum score of corruption risk}}$$

Clientelist practices contribute to shape professionalism, motivation and integrity of personnel and have a significant repercussion on government effectiveness (Cosenz, 2010). The latter embeds community perceptions of the quality of public institutions and credibility of governments in policy design and implementation (World Bank, 2019b). Where local politics recurs to clientelism to enlarge its electoral pool, trust takes advantage – Loop B1, Figure 7.1; Table 7.1 –, considering that institutional legitimacy is a psychological aspect of an authority leading who is somehow linked to it to consider such an authority as suitable and correct (Tyler, 2006: 375). Furthermore, local politicians are pushed to create job placement opportunities until they do not achieve their desired consensus, and vice versa – Loop B2, Figure 7.1; Table 7.1.

Intuitively, these two processes depict the typical myopic political choices leading to mortification of the effectiveness and efficiency of public action just to gain short-term consensus, but undermining the long-term one. Indeed, trust is also built by providing the community with high civil service quality (CSQ) – here measured by the ‘CSQ ratio’ –, at the aim to improve their satisfaction with the local quality of life. In general, considering that the quality of civil service is part of the government effectiveness (World Bank, 2019b), trust is socially constructed through the concrete long-term experience with the institutional structures, rules, roles, as well as with the local government’s action (Christensen & Lægreid, 2005), other than by a diffuse confidence in public institutions (Easton, 1965).

Therefore, a gradual deterioration of the PEs’ professionalism – i.e., ‘Non-trained PEs ratio’ – due to clientelism affects CSQ and the community’s satisfaction with the local quality of life – 4th and 3rd layer outcomes, Figure 7.2 –, thus reducing political trust and encouraging politicians to recur to fiduciary practices (Cosenz, 2010) – 2nd layer outcomes, Figure 7.2 –, and vice versa – Loop R1, Figure 7.1; Table 7.1.

More in particular, when the number of ‘Non-Trained PEs’ starts to increase, the level of CSQ begins to decreasingly decrease, since the professionalism deterioration makes PEs more prone to provide citizens with poor service quality, but slowly, because of a higher presence of ‘Trained’ PEs. For the sake of simplicity, when ‘Trained’ and ‘Non-Trained PEs’ are the same, the negative impact on the public service quality is a halved. Finally, the CSQ

increasingly decreases when ‘Trained PEs’ are less than the ‘Non-Trained’ ones, since the negative effect of ‘Non-trained PEs ratio’ starts to gain force thanks to a widespread lack of competence within the organisation¹¹ – see Appendix B.

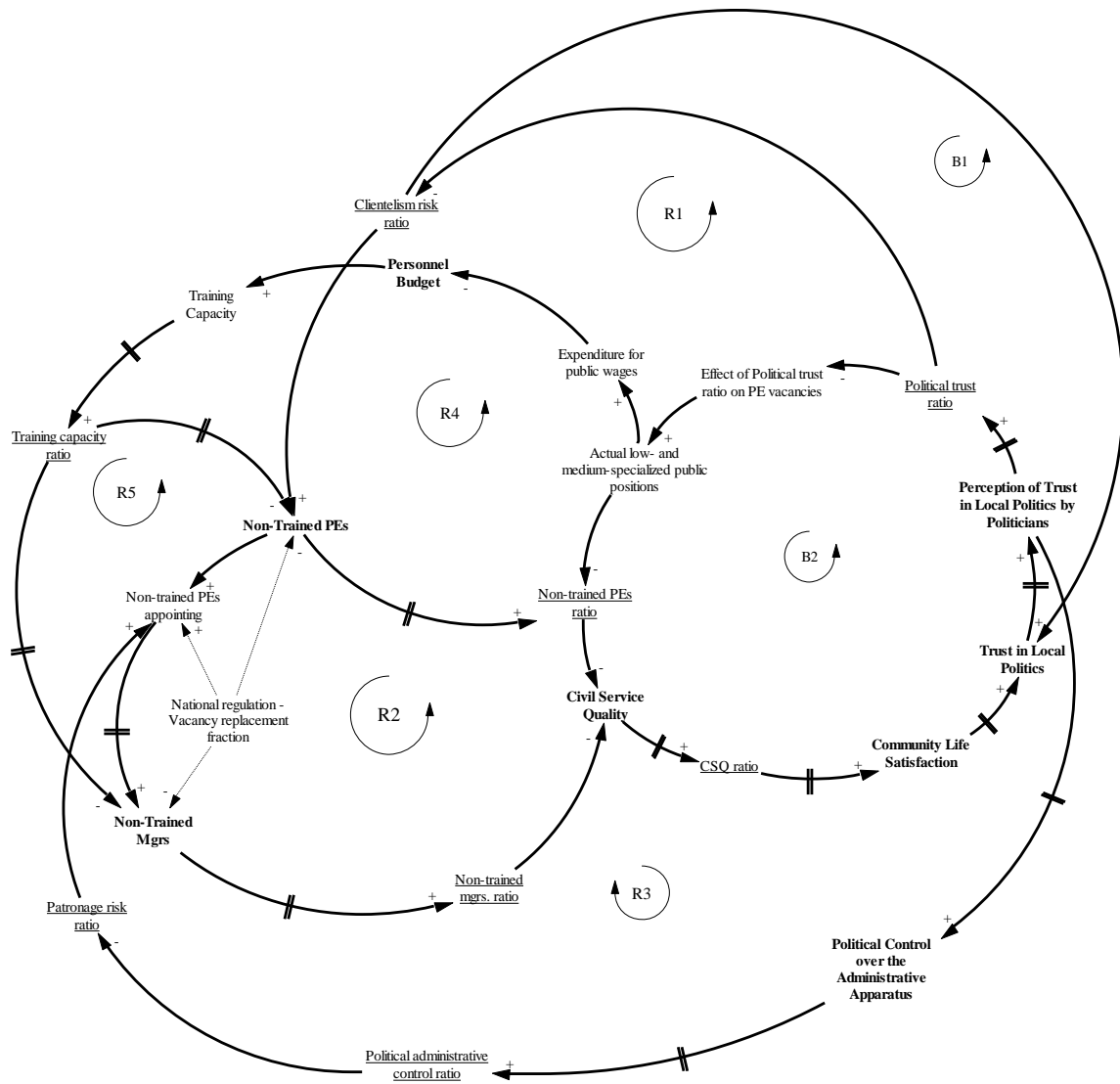









Figure 7.1. The CLD of the political fiduciary practices. Source: Author’s elaboration.

¹¹ In the model exhibited in Chapter 6, the variable stemming from the overall professional synergies within the organisation corresponds to the ‘Organizational expertise ratio’. See Appendix B for further details.

Fiduciary Practices in Human Resource Management: An Outcome-based Dynamic Performance Management View

Table 7.1. Main feedback loops of fiduciary practices in HRM.

Causal loop	Variables involved	Explanation of the loop
	Trust in Local Politics → + Perception of Trust in Local Politics by Politicians → + Political trust ratio → - Clientelism risk ratio → +	Political trust counteracts politicians' willingness to recur to clientelism.
	Political trust ratio → - Effect of Political trust ratio on PE vacancies → + Actual low- and medium-specialized public positions → - Non-trained PEs ratio → - Civil Service Quality → + CSQ ratio → + Community Life Satisfaction → + Trust in Local Politics → + Perception of Trust in Local Politics by Politicians → +	Creating PE vacancies balances the politicians' desire to gain consensus through job placement opportunities.
	Clientelism risk ratio → + Non-Trained PEs → + Non-trained PEs ratio → - Civil Service Quality → + CSQ ratio → + Community Life Satisfaction → + Trust in Local Politics → + Perception of Trust in Local Politics by Politicians → + Political trust ratio → -	Clientelism deteriorates the expertise of the PEs endowment and political trust.
	Clientelism risk ratio → + Non-Trained PEs → + Non-trained PEs appointing → + Non-Trained Mgrs → + Non-trained mgrs. ratio → - Civil Service Quality → + CSQ ratio → + Community Life Satisfaction → + Trust in Local Politics → + Perception of Trust in Local Politics by Politicians → + Political trust ratio → -	Clientelism undermines the managerial quality through spoils system.
	Non-trained PEs appointing → + Non-Trained Mgrs → + Non-trained mgrs. ratio → - Civil Service Quality → + CSQ ratio → + Community Life Satisfaction → + Trust in Local Politics → + Perception of Trust in Local Politics by Politicians → + Political Control over the Administrative Apparatus → + Political administrative control ratio → - Patronage risk ratio → +	Appointing under-specialized PEs reinforces patronage risk.
	Actual low- and medium-specialized public positions → + Expenditure for public wages → - Personnel Budget → + Training Capacity → + Training capacity ratio → - Non-Trained PEs → + Non-trained PEs ratio → - Civil Service Quality → + CSQ ratio → + Community Life Satisfaction → + Trust in Local Politics → + Perception of Trust in Local Politics by Politicians → + Political trust ratio → - Effect of Political trust ratio on PE vacancies → +	Over-employment distracts resources from PEs' training, and vice versa.
	Actual low- and medium-specialized public positions → + Expenditure for public wages → - Personnel Budget → + Training Capacity → + Training capacity ratio → - Non-Trained Mgrs → + Non-trained mgrs. ratio → - Civil Service Quality → + CSQ ratio → + Community Life Satisfaction → + Trust in Local Politics → + Perception of Trust in Local Politics by Politicians → + Political trust ratio → - Effect of Political trust ratio on PE vacancies → +	Over-employment distracts resources from Mgrs. training, and vice versa.

Fiduciary Practices in Human Resource Management: An Outcome-based Dynamic Performance Management View

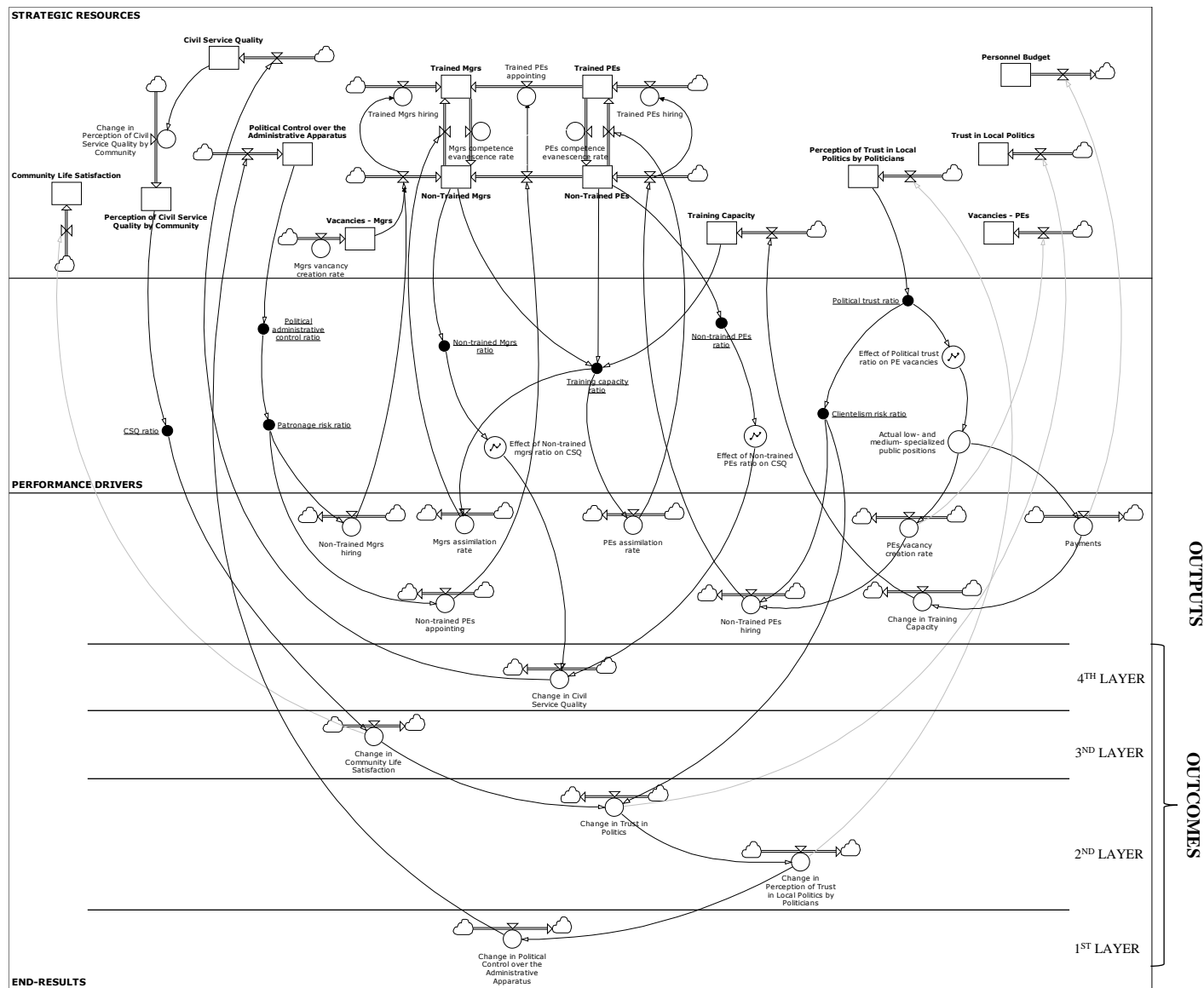


Figure 7.2. The DPM chart of the political fiduciary practices. Source: Author's elaboration.

The local politics' decisions concerning vacancy replacement take into account both the austere national regulation limiting the degree of leeway in public hiring¹² and their desire to increase its control over the bureaucratic machinery. As such, on the managerial side, local mayors may overcome the shortage of managerial vacancies by outsourcing from outside specifically-selected experts, hiring through competitive procedure or directly appointing trusted individuals who are already available in the organisational human endowment.

In the case of internal appointing, environments characterised by legal origins (Glaeser & Schleifer, 2002) and cultural traditions (Hofstede, 1991) fostering poor governance may persuade local politics to exercise its legitimate power and increase its administrative control by choosing inadequate PEs for significant public charges. This possibility is in contrast to more appropriate public integrity paradigms, which are made of value systems, mindsets and routines enabling behaviours compliant with regulation, ethics codes and best organisational practices (Minkova, 2018: 5).

Accordingly, the 'Patronage risk ratio' alerts on the possible room for corruption in career progression:

$$[2] \textit{Patronage risk ratio} = (1 - \textit{Political administrative control ratio}) * \frac{\textit{Probability of corruption in career progression} * \textit{Weight of corruption in career progression}}{\textit{Maximum score of corruption risk}}$$

where the second-level performance driver 'Political administrative control ratio' stems from the politicians' perception of supremacy on bureaucracy. The latter constitutes a second-order information process (Forrester, 1992), put into place by politicians, recognising the approximative degree of trust in the local politics and the subsequent legitimacy to command the public Body in line with their goals.

As it is possible to notice, the equations [1] and [2] are different from those used in the previous chapter for the absence of the component 'Structural Corruption Conditions'. This is due to the fact that the second-level performance drivers 'Political trust ratio' and 'Political administrative control ratio' already consider the relevant cultural and social aspects laying underneath the local political willingness to gain consensus through favouritism practices. Therefore, excluding such a stock variable avoided model redundancy.

¹² On the topic, cf. Kickert, W., Randma-Liiv, T., & Savi, R. 2013. Fiscal consolidation in Europe: A comparative analysis, *COCOPS deliverable 7.2, September*.

During periods of retrenchment, in contexts with poor governance structures, clientelism in personnel recruitment is such as to undermine the executive performance by means of spoils system mechanisms – see the ‘Non-trained mgrs. ratio’ –, thus influencing the ‘CSQ ratio’¹³ and reinforcing the political incentive to adopt clientelist practices – Loop R2, Figure 7.1; Table 7.1. Likewise, patronage without meritocracy brings about the same effect, thus exacerbating the political control over bureaucracy and increasing the patronage risk due to low political trust – Loop R3, Figure 7.1, Table 7.1; 2nd and 1st layer outcomes, Figure 7.2.

Finally, rule-misaligned choices in HRM aimed at gaining political consensus affects the Municipality’s training capacity. Notably, low-level vacancies – i.e., ‘Actual low- and medium- specialized public positions’ – are positively influenced by fiduciary practices, so as to provoke losses of public resources (Cosenz, 2010). The opportunity to invest in training is not a priority of the local political agenda, thus negatively influencing the CSQ and pushing politicians to reinforce this strategy, according to the local trust that they enjoy; and vice versa – Loops R4 and R5, Figure 7.1; Table 7.1.

The following section shows the model simulation results, according to the equations exhibited in Appendix B.

7.5 Explanatory model simulation: Basic run

Figure 7.3 transposes the DPM chart into an SFD, which is based on some assumptions that require some opportune clarifications.

- Time 0 corresponds to year 1990, as no official, legal and reliable information about the actual dynamics in HRM within the Municipality before the ‘90s is available. For this reason, the impacts of favouritism are here assumed to manifest immediately before the first disbandment for mafia infiltrations, which occurred in 1991.
- For the sake of simplicity, each of the four stocks referred to the municipal HR endowment includes both permanent and fixed-term contract public workers. Indeed, according to the Personnel Office of the Municipality (pers. comm.), the half of the current public employees are precarious workers.
- In order to simplify the model, the hiring rates include the choice of outsourcing, that of hiring through competitive procedure and whatever other manner to acquire mgrs. externally. It follows that the ‘appointing’ rates are only referred to the internal selection of PEs for executive roles through spoils systems mechanism.

¹³ The same considerations of the negative impact of ‘Non-trained PEs ratio’ on the CSQ apply here.

Fiduciary Practices in Human Resource Management: An Outcome-based Dynamic Performance Management View

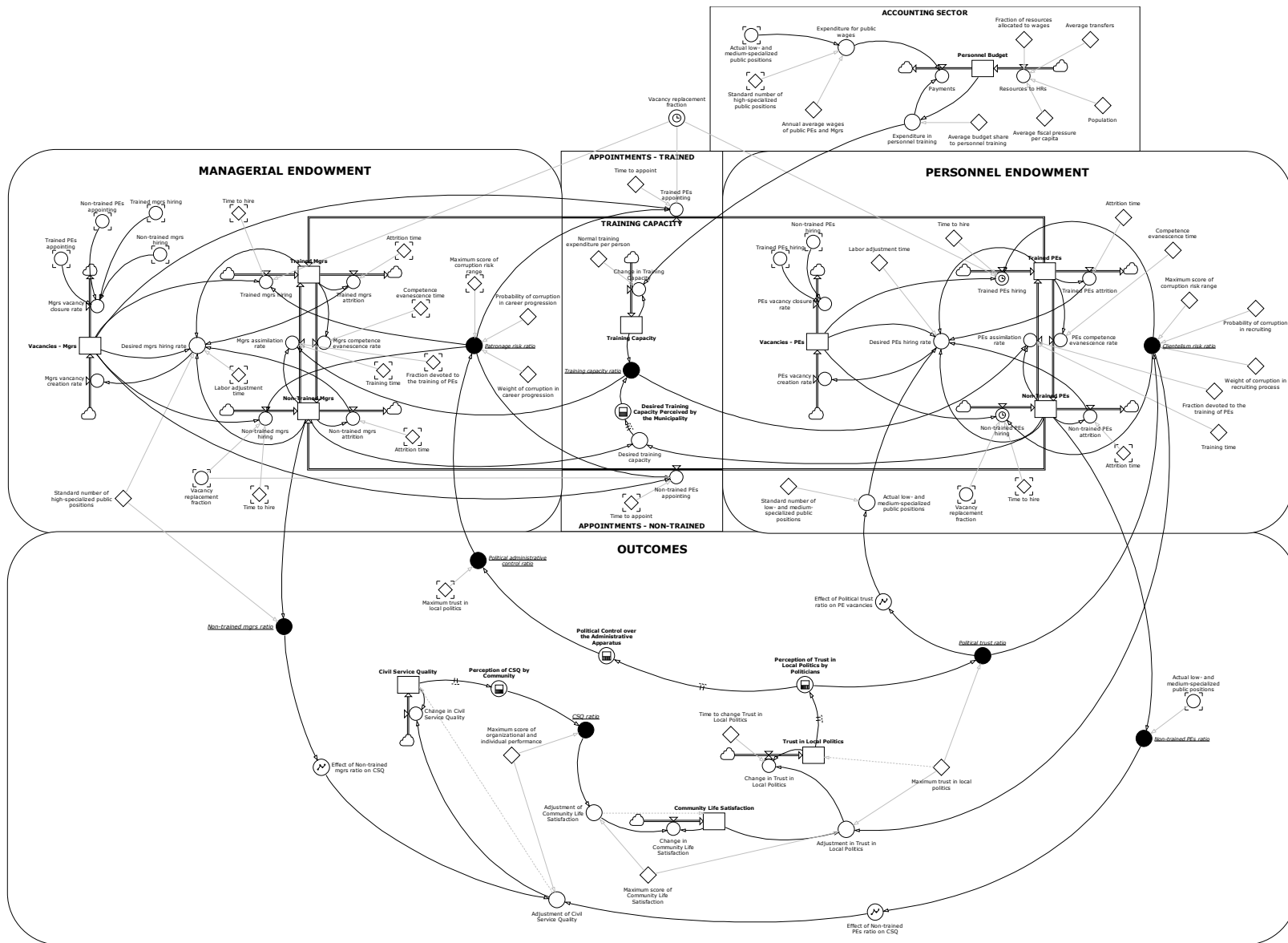


Figure 7.3. The SFD of the political fiduciary practices. Source: Author's elaboration.

- The choice between external hiring of mgrs. and internal appointing depends on both the politics' willingness and the restrictions provided by the national cutback policies on turnover. This is modelled by change the 'Vacancy replacement fraction' in time 10 and 20 – i.e., 2000 and 2010, years in which “Politics made a mistake and began to make patronage” (Public Official #3, 2019) and the significant block of public turnover came into force, respectively – through the use of two step functions.
- The attrition rates of the stocks include all the possible solutions for the end of the labour relationship with the Municipality – i.e., retirements, layoffs, resignations, selections-out due to legal provisions, etc.
- In general, the decision to engage in clientelist practices also depends on a set of heterogeneous structural factors, which are not explicitly modelled, but captured by the 'soft' variables of the section labelled 'Outcomes'.
- Since politicians' mandates are short-term, it is reasonable to assume that, if they have the opportunity to assign significant charges to people from outside the public body through outsourcing or public hiring, they will guarantee to themselves a higher probability to be re-elected in the future, so that the fraction devoted to internal appointment is always lower than the former.
- In any case, if present, the level of favouritism in HRM is assumed as a system condition in the model, so that clientelism and patronage exist contemporary, even though with different probabilities of occurrence and magnitudes.
- As regards the last point, it is opportune to precise that, if there is a possibility to have the one but not the other form of fiduciary practice, two possible scenarios may occur. In the case where: a) there are strict national employment provisions; b) the 'Clientelism risk ratio' is at its maximum level; c) the 'Patronage risk ratio' is at its minimum; d) there are not 'Trained PEs'; then, there will be no appointment by politicians, as it is here assumed that, in such a situation, politicians are not prone to assign important public charges to poorly-trained PEs and, as a result, managerial vacancies remain not-fulfilled. On the contrary, in the case where – *ceteris paribus* – the 'Clientelism risk ratio' is at its minimum level and the 'Patronage risk ratio' is at its maximum, it is reasonable to assume that politicians are not prone to appoint people who are not 'in-line' with their private interests, such that they prefer to avoid any troublesome appointment.

Fiduciary Practices in Human Resource Management: An Outcome-based Dynamic Performance Management View

Based on the SFD showed in Figure 7.3, the model simulation results are showed in Figure 7.4 and Table 7.2 under the DPM view. The model equations and documentation and the validation tests are consultable in Appendixes B and C, respectively.

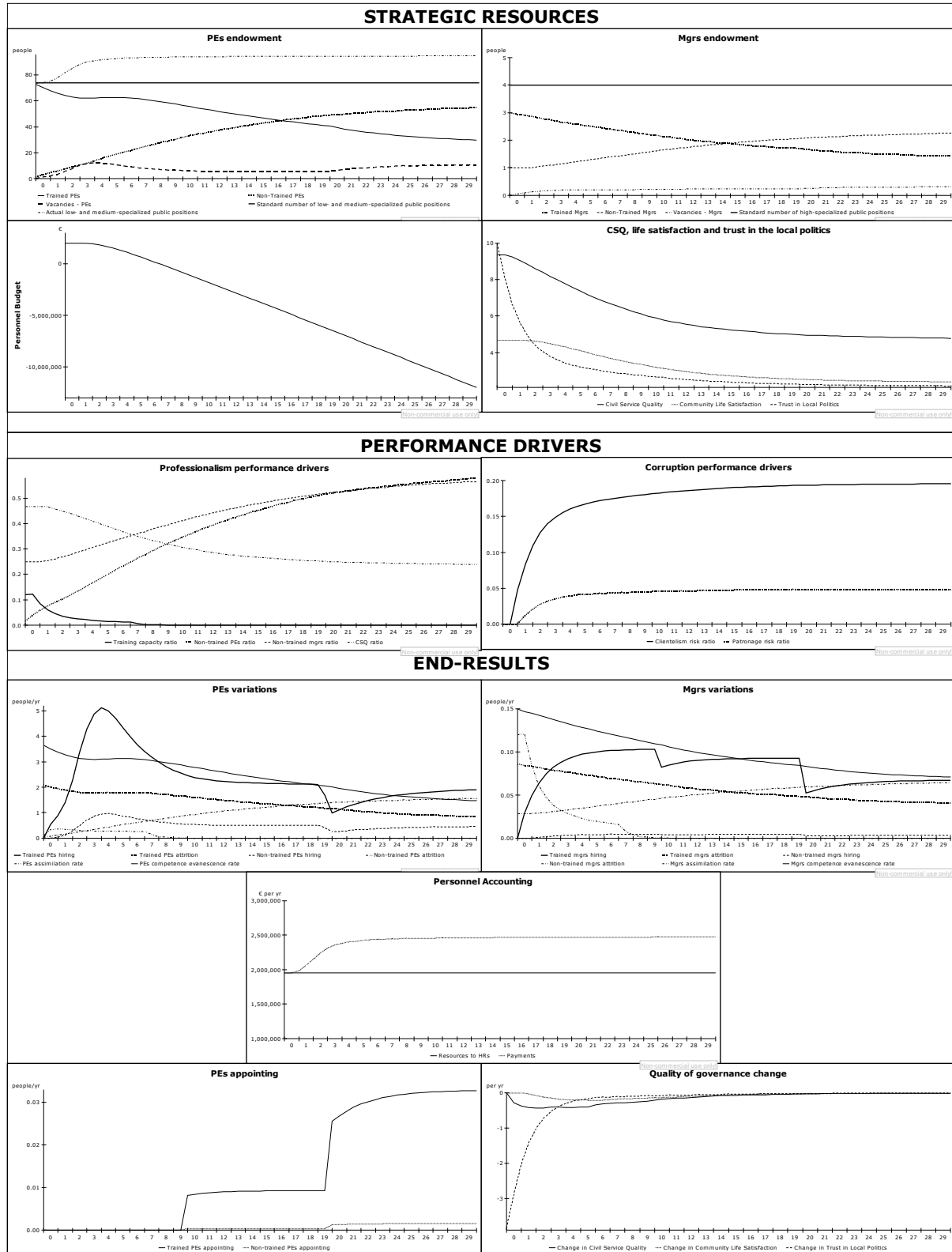


Figure 7.4. Simulation of the effects of the fiduciary practices on the system. Period 1990-2020.

Fiduciary Practices in Human Resource Management: An Outcome-based Dynamic Performance Management View

Table 7.2. Model simulation results of the basic run. Period 1990-2020. Standard public positions = 74 people.

Time	Political trust ratio	Clientelism risk ratio	Trained PEs	Non-Trained PEs	Non-trained PEs ratio	Actual low- and medium-specialized public positions	Vacancies - PEs	Political administrative control ratio	Patronage risk ratio	Trained Mgrs	Non-Trained Mgrs	Non-trained mgrs ratio	Training capacity ratio	CSQ ratio	Civil Service Quality	Community Life Satisfaction	Trust in Local Politics
year	dimensionless		person		dimensionless	person		dimensionless		person		dimensionless					
0	1.0000	0.0000	73.0000	1.0000	0.0135	74.0000	0.0000	1.0000	0.0000	3.0000	1.0000	0.2500	0.1200	0.4687	9.3749	4.6875	10.0000
1	0.8086	0.0479	67.8651	4.3000	0.0571	75.2557	1.8349	1.0000	0.0000	2.9013	0.9995	0.2499	0.0843	0.4687	9.2332	4.6875	6.6504
2	0.5634	0.1092	64.0982	7.2307	0.0881	82.0527	5.0953	0.6650	0.0209	2.8044	1.0427	0.2607	0.0447	0.4587	8.8343	4.6697	4.9158
3	0.4407	0.1398	62.2311	10.2436	0.1159	88.3473	9.9251	0.4916	0.0318	2.7071	1.1110	0.2777	0.0292	0.4405	8.3989	4.5653	4.0427
4	0.3777	0.1556	62.2153	13.5126	0.1479	91.3336	12.1300	0.4043	0.0372	2.6167	1.1856	0.2964	0.0213	0.4199	7.9869	4.3939	3.5799
5	0.3429	0.1643	62.6642	16.8840	0.1825	92.5209	11.2527	0.3580	0.0401	2.5331	1.2607	0.3152	0.0165	0.3992	7.5656	4.1965	3.3092
6	0.3212	0.1697	62.5395	20.1340	0.2159	93.2590	9.6206	0.3309	0.0418	2.4552	1.3341	0.3335	0.0134	0.3784	7.1598	3.9909	3.1297
7	0.3058	0.1735	61.7422	23.1767	0.2471	93.7816	8.2386	0.3130	0.0429	2.3824	1.4044	0.3511	0.0114	0.3587	6.8215	3.7846	2.9943
8	0.2936	0.1766	60.4019	26.0643	0.2771	94.0656	7.2623	0.2994	0.0438	2.3105	1.4748	0.3687	0.0025	0.3417	6.5285	3.5922	2.8814
9	0.2831	0.1792	58.6404	28.8752	0.3065	94.2053	6.5018	0.2881	0.0445	2.2359	1.5488	0.3872	0.0006	0.3267	6.2490	3.4226	2.7837
10	0.2740	0.1815	56.6914	31.4991	0.3339	94.3268	5.9993	0.2784	0.0451	2.1652	1.6191	0.4048	0.0001	0.3127	5.9974	3.2704	2.6983
11	0.2659	0.1835	54.6896	33.9258	0.3593	94.4336	5.6981	0.2698	0.0456	2.0888	1.6838	0.4210	0.0000	0.3004	5.7964	3.1310	2.6226
12	0.2588	0.1853	52.7282	36.1683	0.3826	94.5291	5.5246	0.2623	0.0461	2.0223	1.7434	0.4359	0.0000	0.2903	5.6308	3.0094	2.5548
13	0.2524	0.1869	50.8515	38.2422	0.4042	94.6142	5.4233	0.2555	0.0465	1.9634	1.7984	0.4496	0.0000	0.2819	5.4840	2.9078	2.4951
14	0.2468	0.1883	49.0792	40.1614	0.4241	94.6880	5.3613	0.2495	0.0469	1.9104	1.8490	0.4623	0.0000	0.2745	5.3678	2.8217	2.4438
15	0.2421	0.1895	47.4175	41.9379	0.4426	94.7514	5.3203	0.2444	0.0472	1.8623	1.8957	0.4739	0.0000	0.2688	5.2800	2.7490	2.3997
16	0.2380	0.1905	45.8659	43.5824	0.4597	94.8055	5.2911	0.2400	0.0475	1.8184	1.9388	0.4847	0.0000	0.2642	5.2042	2.6911	2.3625
17	0.2346	0.1913	44.4204	45.1045	0.4755	94.8506	5.2686	0.2363	0.0477	1.7781	1.9786	0.4947	0.0000	0.2603	5.1357	2.6444	2.3318
18	0.2319	0.1920	43.0756	46.5130	0.4902	94.8877	5.2501	0.2332	0.0479	1.7411	2.0154	0.5038	0.0000	0.2569	5.0730	2.6047	2.3065
19	0.2296	0.1926	41.8257	47.8161	0.5038	94.9183	5.2343	0.2307	0.0481	1.7070	2.0493	0.5123	0.0000	0.2538	5.0195	2.5697	2.2854
20	0.2276	0.1931	40.4538	48.9709	0.5158	94.9443	5.4826	0.2285	0.0482	1.6756	2.0806	0.5202	0.0000	0.2511	4.9773	2.5387	2.2673
21	0.2259	0.1935	38.3493	49.8124	0.5245	94.9668	6.7583	0.2267	0.0483	1.6248	2.1081	0.5270	0.0000	0.2490	4.9450	2.5124	2.2517
22	0.2245	0.1939	36.6170	50.5827	0.5325	94.9861	7.7379	0.2252	0.0484	1.5845	2.1328	0.5332	0.0000	0.2473	4.9189	2.4912	2.2383
23	0.2232	0.1942	35.1791	51.2893	0.5399	95.0024	8.4862	0.2238	0.0485	1.5517	2.1552	0.5388	0.0000	0.2460	4.8960	2.4744	2.2272
24	0.2222	0.1944	33.9749	51.9384	0.5466	95.0157	9.0562	0.2227	0.0486	1.5244	2.1755	0.5439	0.0000	0.2448	4.8754	2.4606	2.2181
25	0.2214	0.1946	32.9570	52.5354	0.5528	95.0267	9.4897	0.2218	0.0486	1.5012	2.1940	0.5485	0.0000	0.2438	4.8567	2.4488	2.2107
26	0.2207	0.1948	32.0887	53.0848	0.5586	95.0358	9.8191	0.2211	0.0487	1.4810	2.2110	0.5527	0.0000	0.2429	4.8395	2.4383	2.2044
27	0.2202	0.1950	31.3413	53.5910	0.5639	95.0435	10.0692	0.2204	0.0487	1.4634	2.2265	0.5566	0.0000	0.2420	4.8238	2.4288	2.1990
28	0.2197	0.1951	30.6925	54.0574	0.5687	95.0502	10.2592	0.2199	0.0488	1.4476	2.2409	0.5602	0.0000	0.2412	4.8094	2.4202	2.1942
29	0.2192	0.1952	30.1247	54.4875	0.5732	95.0562	10.4035	0.2194	0.0488	1.4335	2.2540	0.5635	0.0000	0.2405	4.7961	2.4122	2.1900
30	0.2188	0.1953	29.6243	54.8842	0.5774	95.0616	10.5132	0.2190	0.0488	1.4208	2.2662	0.5665	0.0000	0.2398	4.7839	2.4050	2.1861

The impact of political pressure for public job creation is reflected by the initial increase in the ‘Actual low- and medium-specialized public positions’ and ‘Vacancies - PEs’, passing the standard number of available job positions – see ‘PEs endowment’ box, Figure 7.4.

During the overall investigated period, the category of ‘Non-Trained PEs’ increases at a low rate, according to the initial decreasing growth of clientelism risk and the prevalence of the related hiring and competence evanescence rates compared to its attrition one – see ‘PEs endowment’, ‘PEs variations’ and ‘Corruption performance drivers’ boxes, Figure 7.4.

Differently, the stock ‘Trained PEs’, at the beginning, decreases decreasingly and, in time 3, stabilises for approximately three years before to follow a continuous decreasing pattern. More in depth, the initial impact of clientelism on the personnel’s professionalism is counteracted by the other lever of political consensus, represented by the increase in low-specialised job vacancies. This leaves room for hiring skilled-people, such as to allow the trained PEs’ hiring rate to increase and, jointly with the ‘PEs assimilation rate’, endure the effects of both attrition and competence evanescence rates over the three-year period mentioned above, even though faintly – see ‘PEs endowment’ and ‘PEs variations’ boxes, Figure 7.4. It follows that, in environments with poor levels of governance, political pressure may be susceptible to realistically favour unemployed skilled people at the beginning of its adoption.

At time 10 – i.e., 2000 –, the activation of the first step function in the variable ‘Vacancy replacement fraction’ captures the use of ‘spoil system’ tool to appoint internal individuals for managerial charges. Coherently with what stated by the Public Official #3 (2019) and Public Official #5 (2019), based on the level of the ‘Patronage risk ratio’ and the personnel’s professionalism, the consolidated presence of cultural traditions and routines in carrier progression allows for designation of individuals lacking of required managerial capabilities. In the model, on the one hand, the reduction in the replacement fraction reduces the portion of public hiring of mgrs. through either competitive procedures or outsourcing; on the other hand, patronage risk works as a trailblazer for underqualified individuals.

Over the entire investigated period, the internal composition of mgrs. changes such that the trained group decreases decreasingly, as the related attrition and competence evanescence rates are higher than the hiring rate. Contrarily, the non-trained group of mgrs. increases, since its hiring and the competence evanescence rates are together higher than its attrition rate.

Interestingly, the non-trained group overtakes the trained one between time 14 and 15 – i.e., 2004-2005. Likewise, the stock ‘Trained PEs’ decreases decreasingly, while the ‘Non-

Trained PEs' keep going on about increasing decreasingly until they do not overtake the former in time 16 – i.e., 2006.

At the 20th year – correspondent to 2010 –, the harsh national austere policies visibly discourage public hiring of trained individuals for occupying both high- and low-level job positions. On the contrary, the hiring rates of both the non-trained categories are low and, as such, withstand the blow – see 'PEs variations' and 'Mgrs. variations' boxes, Figure 7.4.

The number of managerial vacancies is kept low as, overall, the category is not subject to the national cutback policies, by virtue of the adoption of 'spoils system' mechanisms. At this regard, the appointment of PEs is decided according to the best possible choice, such that 'Trained PEs appointing' is higher than the 'Non-trained PEs appointing', but the risk of political patronage in the system leaves room for the appointment of individuals with poor skills for competence, both in time 10 and in time 20 – see 'PEs appointing' box, Figure 7.4.

Despite their controllable levels, the second-level performance drivers 'Clientelism' and 'Patronage' risk ratios find fertile ground in the lack of formal professional and integrity training programmes for the municipal staff. More precisely, the Municipality did not allocate adequate resources in personnel training during the last 30 years, so as to increase the risk to appoint non-trained PEs and make difficult to enhance the personnel's expertise. This reverberates on the CSQ, the 'Community Life Satisfaction' and, therefore, on the 'Trust in Local Politics', which decrease over time according to the internal composition of the mgrs. and the PEs endowment – see 'Professionalism performance drivers' and 'CSQ, life satisfaction and trust in the local politics' box, Figure 7.4.

Although, as the model shows, political pressure for public job creation may have created opportunities for unemployed skilled people at the beginning of its adoption, this strategy unveils unsustainable in the long-term. Indeed, on the one hand, it inflated the number of adequate civil servants hireable and, on the other hand, inevitably invalidated the average level of expertise, because of disregarding of training programmes in the political agenda. In this picture, the competence dissipation assumes the most significant role in explaining the growth of the non-trained category of PEs over time and, in so doing, enabling the probability of new forms of inappropriate practices at managerial level.

Finally, cutback national reforms may have not generated any appreciable effect on reversing the over-employment trend in the Municipality. On the contrary, they may have just limited the access to skilled people through competitive procedures, without adequately hindering clientelist practices.

7.6 Dealing with the past with an eye to the future: A composite policy package

The policy package suggested in this research is aimed at enhancing the municipal workforce's expertise and, if necessary, integrate it by giving fresh blood access. It is the result of the combination of four fundamental levers – see Figure 7.5 and Table 7.3 –, that is:

- as it was already suggested in the previous chapter, allocating the adequate budget share to the personnel's training programmes;
- limiting or even banning any kind of 'spoils system' mechanism;
- unblocking the personnel turnover;
- curbing political hegemony on recruitment.

Public officials have both the right and the duty to undertake training (Kuyumdzhieva, Dell, & Földes, 2015). It may significantly slow down the gradual dissipation of the staff's capabilities and integrity, and reduce opportunities for resource waste linked to unfair practices in any local public activity. Even in administrative contexts that guarantee properly-trained and upright PEs and Mgrs., lack of training programmes can markedly downgrade the satisfying professional quality of municipal staff and foster pathological routines resulting in an uncontrollable level of personnel discretion.

Although people's creativity and cultural roots may make useless any effort in this sense, strengthening both formal and informal monitoring along the recruiting process and in career progressions through high-level professionalism could enhance the organisational integrity and reactivity in detecting possible anomalies. Therefore, a sustained and continuous effort aimed at keeping the civil servants' expertise sufficiently high to guarantee an appropriate level of public service may be effective in moving away from deleterious path dependencies, which result "in a non-action towards citizens" (Public Official #3, 2019).

By virtue of the reduction of possible gaps in trust in the local politics by citizens, improving civil service through renewed integrity paradigms and expertise may counteract consensus-gaining logics that provoke over-employment and push myopic politicians to recur to favouritism practices. In other terms, it would mean to restore a physiological trust in the local politicians, in a way to discourage the key-actors to appoint inadequate individuals.

Fiduciary Practices in Human Resource Management: An Outcome-based Dynamic Performance Management View

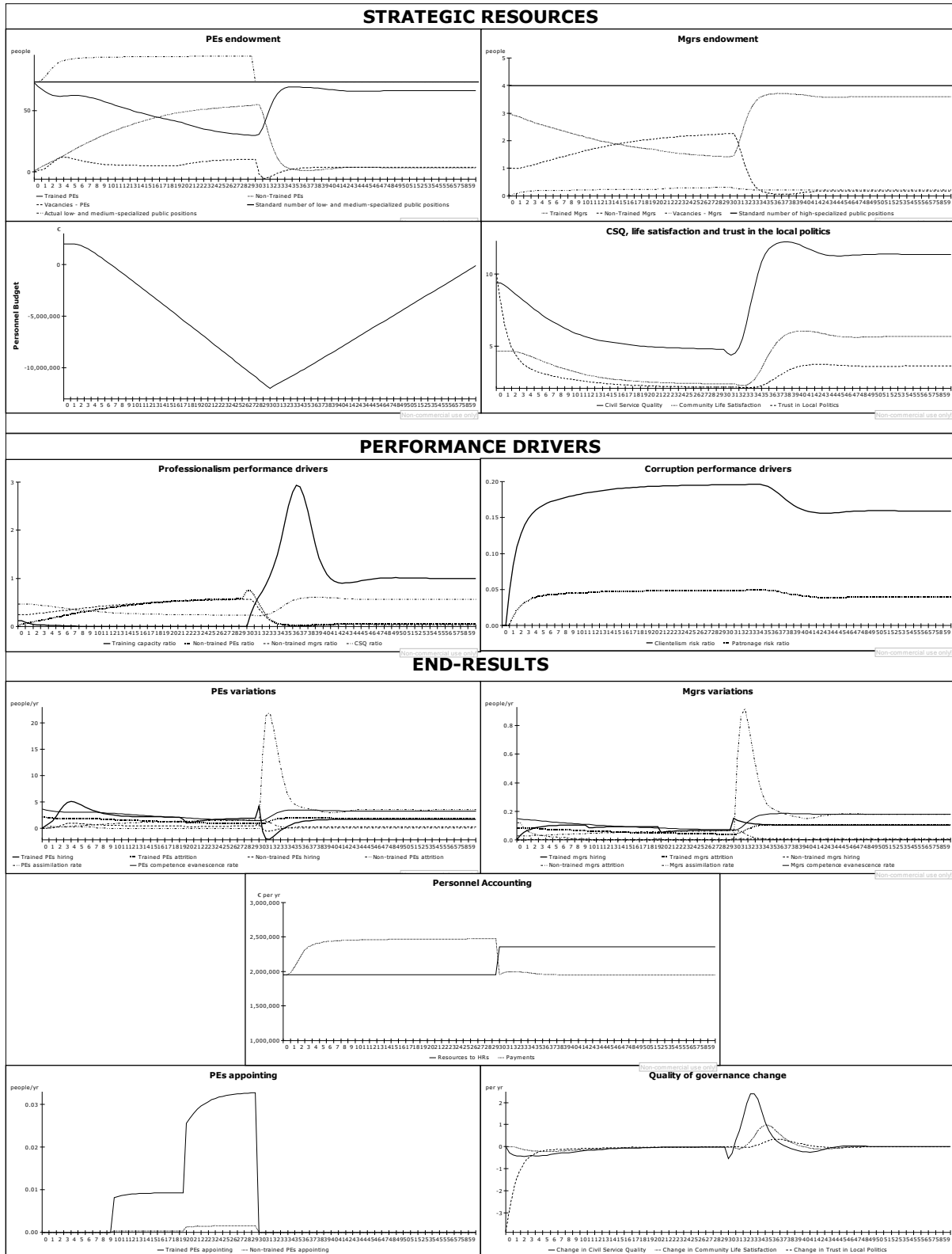


Figure 7.5. Simulation of the possible impacts of the joint implementation of the four policies in TIME = 30. Period 1990-2050.

Fiduciary Practices in Human Resource Management: An Outcome-based Dynamic Performance Management View

Table 7.3. Model simulation results of the joint implementation of the four policies. Period 2020-2050. Standard public positions = 74 people.

Time	Political trust ratio	Clientelism risk ratio	Trained PEs	Non-Trained PEs	Non-trained PEs ratio	Actual low- and medium-specialized public positions	Vacancies - PEs	Political administrative control ratio	Patronage risk ratio	Trained Mgrs	Non-Trained Mgrs	Non-trained mgrs ratio	Training capacity ratio	CSQ ratio	Civil Service Quality	Community Life Satisfaction	Trust in Local Politics
year	dimensionless		person		dimensionless	person		dimensionless		person		dimensionless					
30	0.2188	0.1953	29.6243	54.8842	0.7417	74.0000	10.5132	0.2190	0.0488	1.4208	2.2662	0.5665	0.0000	0.2398	4.7839	2.4050	2.1861
31	0.2184	0.1954	36.0336	48.3137	0.6529	74.0000	-5.0919	0.2186	0.0488	1.7364	1.9950	0.4987	0.4386	0.2327	4.3710	2.3983	2.1826
32	0.2181	0.1955	52.4013	26.9881	0.3647	74.0000	-4.0755	0.2183	0.0489	2.6050	1.1504	0.2876	0.7174	0.2259	4.8868	2.3095	2.1754
33	0.2165	0.1959	64.1041	11.3841	0.1538	74.0000	-1.1597	0.2175	0.0489	3.2521	0.5163	0.1291	1.0242	0.2562	6.5258	2.3176	2.1535
34	0.2150	0.1963	68.8110	4.2611	0.0576	74.0000	1.0101	0.2153	0.0490	3.5644	0.2111	0.0528	1.4840	0.3389	8.9351	2.6761	2.1624
35	0.2202	0.1950	69.6238	2.0644	0.0279	74.0000	2.3323	0.2162	0.0490	3.6734	0.1059	0.0265	2.1584	0.4468	10.8309	3.4804	2.2752
36	0.2385	0.1904	69.4949	1.4253	0.0193	74.0000	3.0850	0.2275	0.0483	3.7091	0.0723	0.0181	2.7880	0.5318	11.7498	4.4579	2.5270
37	0.2690	0.1827	69.2358	1.2638	0.0171	74.0000	3.5017	0.2527	0.0467	3.7186	0.0638	0.0160	2.9067	0.5793	12.1203	5.2421	2.8624
38	0.3030	0.1742	68.8653	1.4056	0.0190	74.0000	3.7295	0.2862	0.0446	3.7121	0.0710	0.0178	2.4035	0.6013	12.2303	5.7221	3.1856
39	0.3322	0.1669	68.3272	1.8195	0.0246	74.0000	3.8534	0.3186	0.0426	3.6914	0.0920	0.0230	1.7050	0.6088	12.1859	5.9658	3.4381
40	0.3533	0.1617	67.6442	2.4352	0.0329	74.0000	3.9206	0.3438	0.0410	3.6603	0.1233	0.0308	1.2201	0.6075	12.0246	6.0588	3.6082
41	0.3666	0.1584	66.9711	3.0719	0.0415	74.0000	3.9570	0.3608	0.0399	3.6280	0.1557	0.0389	0.9912	0.6000	11.7904	6.0552	3.7073
42	0.3735	0.1566	66.4774	3.5459	0.0479	74.0000	3.9767	0.3707	0.0393	3.6039	0.1798	0.0450	0.9118	0.5891	11.5540	5.9875	3.7516
43	0.3758	0.1561	66.2213	3.7913	0.0512	74.0000	3.9874	0.3752	0.0391	3.5914	0.1923	0.0481	0.9018	0.5781	11.3766	5.8865	3.7561
44	0.3748	0.1563	66.1579	3.8489	0.0520	74.0000	3.9932	0.3756	0.0390	3.5885	0.1953	0.0488	0.9207	0.5697	11.2799	5.7841	3.7353
45	0.3720	0.1570	66.2057	3.7980	0.0513	74.0000	3.9963	0.3735	0.0392	3.5911	0.1927	0.0482	0.9485	0.5649	11.2514	5.7044	3.7032
46	0.3687	0.1578	66.2942	3.7078	0.0501	74.0000	3.9980	0.3703	0.0394	3.5957	0.1880	0.0470	0.9750	0.5632	11.2646	5.6570	3.6714
47	0.3658	0.1586	66.3797	3.6214	0.0489	74.0000	3.9989	0.3671	0.0396	3.6002	0.1836	0.0459	0.9948	0.5636	11.2951	5.6385	3.6468
48	0.3638	0.1590	66.4424	3.5582	0.0481	74.0000	3.9994	0.3647	0.0397	3.6034	0.1803	0.0451	1.0065	0.5649	11.3264	5.6394	3.6318
49	0.3628	0.1593	66.4785	3.5218	0.0476	74.0000	3.9997	0.3632	0.0398	3.6053	0.1785	0.0446	1.0110	0.5663	11.3503	5.6500	3.6252
50	0.3624	0.1594	66.4924	3.5078	0.0474	74.0000	3.9998	0.3625	0.0398	3.6060	0.1777	0.0444	1.0107	0.5674	11.3648	5.6627	3.6245
51	0.3625	0.1594	66.4916	3.5084	0.0474	74.0000	3.9999	0.3624	0.0398	3.6060	0.1778	0.0444	1.0079	0.5681	11.3709	5.6734	3.6269
52	0.3629	0.1593	66.4836	3.5165	0.0475	74.0000	3.9999	0.3627	0.0398	3.6056	0.1782	0.0445	1.0045	0.5685	11.3714	5.6804	3.6302
53	0.3632	0.1592	66.4737	3.5263	0.0477	74.0000	4.0000	0.3630	0.0398	3.6051	0.1787	0.0447	1.0017	0.5685	11.3688	5.6838	3.6332
54	0.3634	0.1591	66.4653	3.5347	0.0478	74.0000	4.0000	0.3633	0.0398	3.6047	0.1791	0.0448	0.9999	0.5684	11.3654	5.6846	3.6353
55	0.3636	0.1591	66.4597	3.5403	0.0478	74.0000	4.0000	0.3635	0.0398	3.6044	0.1794	0.0449	0.9990	0.5683	11.3623	5.6839	3.6364
56	0.3637	0.1591	66.4569	3.5431	0.0479	74.0000	4.0000	0.3636	0.0398	3.6042	0.1795	0.0449	0.9988	0.5681	11.3601	5.6826	3.6368
57	0.3637	0.1591	66.4563	3.5437	0.0479	74.0000	4.0000	0.3637	0.0398	3.6042	0.1796	0.0449	0.9990	0.5680	11.3590	5.6813	3.6367
58	0.3637	0.1591	66.4568	3.5432	0.0479	74.0000	4.0000	0.3637	0.0398	3.6042	0.1796	0.0449	0.9993	0.5680	11.3586	5.6803	3.6363
59	0.3636	0.1591	66.4578	3.5422	0.0479	74.0000	4.0000	0.3636	0.0398	3.6043	0.1795	0.0449	0.9997	0.5679	11.3588	5.6797	3.6360
60	0.3636	0.1591	66.4589	3.5411	0.0479	74.0000	4.0000	0.3636	0.0398	3.6043	0.1794	0.0449	0.9999	0.5679	11.3591	5.6795	3.6357

Refresher courses for the PA's personnel are very differentiated in terms of time and topic. They can require days or even months to be successfully concluded. Leveraging on the 'Training capacity ratio' means to provide the Municipality with suitable tools for knowledge improvement and cultural change. As it was seen in the previous chapter, cultural change may be possible by creating sense of the institutions and pride in public officials, so as to re-establish a clean governance structure.

Fostering the resilience of Cerda Municipality may require the involvement of external consultants to guide the local Body's employees in: gradually adopting sustainable integrity models; fixing possible communicative 'short circuits' between internal departments and politics, as well as between one department and another; boosting inclusion of the municipal personnel in decision-making processes, in order to enhance internal accountability and mutual watchdogging. Ultimately, this approach may conduct to a visible regeneration of the citizens' public trust in the local Government justified by a reinvented Municipality's image – POLICY 1a, Appendix B.

Assuming that the Municipality's decision-makers want to undertake an investment with own resources, a possible initial strategy to cover the financial sacrifice of training programmes may be that of reallocating part of the Municipality's incomes from doubtful receivables generated by the credit recovery activity triggered by the Special Management Commission of Cerda Municipality's bankruptcy, according to the normal spending for training of a best-in-class municipality with the same characteristics of Cerda – POLICY 1b and POLICY 1c, Appendix B. Deepened researches on SIOPE (2020) allowed to quantify an approximate average yearly expenditure for training of EUR 1,500 per person, which may be adjusted according to the Municipality's necessities.

Nonetheless, funding personnel training should not be a one-time event, since learning requires continuous efforts, especially in a turbulent environment like the public one. Accordingly, as claimed by Levine (1978), the crisis status of a local government requires productivity and creativity from public officials, affects the organisational morale and implies the adaptation of basic strategies to design organisational structures with new growth prospects. Therefore, the Municipality might take into account the possibility to rationalise the local spending for personnel, in order to invest in training and integrity programmes sustainably. This may be done in different manners, such as by means of simple fund-reallocation solutions, by resorting to national and supranational subsidies, or to other types of social shock-absorber.

Intuitively, enabling training programmes only may guarantee the improvement of the overall staff's expertise and integrity, but may not also deal with the legal side-effects of the spoils systems, remove the entry barriers to people with high professionalism and the tendency of politics to inflate the number of public positions. In particular, for the latter issue, the result may be a marked and unsustainable loss of financial resources due to both an increase in the training budget share and in personnel expenses due to possible politically-driven over-employment.

Therefore, a joint action with the upper governmental institutions is firstly needed with the aim to unblock public turnover and, contemporary, limit the scope and capacity of the political discretion deriving from the adoption of 'spoils systems' mechanisms – POLICY 2, Appendix B. In so doing, it could give capable and competent people access to the bureaucratic machine, so that even a limited replacement may gradually trigger a cultural change being hinged on a meritocratic ethos and, if combined with adequate training programmes, producing positive knowledge spillover throughout the public Body.

Finally, and most importantly, the suggested policy package may not produce the expected results without the crucial support of the local politics and an endorsing change in the community's culture aimed to prevent unsustainable public job redundancies. Accordingly, a continuous effort to sensitise the external stakeholders to refuse any kind of blurred agreement is also required – POLICY 3, Appendix B. In the knowledge that this kind of process requires time and resources – intangible especially –, asking the relevant stakeholders to make a vigorous effort jointly with the Municipality is needed to prevent 'active' waste of resources and improve the overall public performance at local level.

7.7 Concluding remarks

This chapter gives an insight of how 'passive' waste, coming from legal opportunities in public administration, may lay the foundations for 'active' waste over time. The case of Cerda is representative of several Italian local realities, where the presence of non-meritocratic patronage in a culturally-predisposed environment and the insufficient budgeting in favour of personnel training programmes, contributed, in different ways and moments, to the change in its HR endowment.

Preferential practices in job placement temporarily guaranteed politicians to reach public consensus, legitimation and control power over bureaucracy, but it condemned the

public Body to equip itself with low-expertise individuals for a long-time lapse and, as a result, to jeopardise its performance over time.

Furthermore, the national austere reforms on public employment aimed at cutting public personnel costs off may have not exercised any appreciable effect on reversing the over-employment trend. Contrarily, they may have only excluded skilled individuals from access to the bureaucratic apparatus through competitive procedures.

Training programmes, limitation of the opportunities for using ‘spoils system’ and unblock of public hiring are essential to improve the overall degree of organisational expertise, the civil servants’ accountability and promote reciprocal control over possible internal vulnerabilities enabling unfair political choices.

Nevertheless, the original low attitudes to clientelist practices do not ensure corruption-free environments. Especially when national reforms provoke an abrupt freeze of the public employment turnover, public organisations are asked to maintain personnel skills and ethics at the levels that ensure high public performance and adequately address collective needs, thus balancing the gradual degradation of professionalism and remedy to past myopic and unfair choices.

The levers suggested in this research can improve their success probability if supported by the parallel implementation of an adequate DPM system. As it was argued in Chapter 6, performance drivers, enabled by means of specific organisational strategic resources, constitute short-term signals of possible unethical behaviours at system level and, therefore, may contribute to guide policy- and decision-makers in rationalising the Municipality’s HRM in the long-run, without compromise the organisational success. Such an approach may foster professional and ethical learning, as well as virtuous community trust-building processes.

Finally, as in whatever local reality, political willingness is the key for a purposefully change in the local culture of Cerda. In the light of this consideration, the final chapter experiments with a collaborative strategy by assuming a comprehensive view of the case-study that involves the capability of the relevant stakeholders of the local area in collaborating with the Municipality to prevent corruption, namely according to an *outside-in* (Bianchi et al., 2019) perspective of performance management.

CHAPTER 8

EXPERIMENTING WITH A COLLABORATIVE GOVERNANCE STRATEGY TO CURB CORRUPTION IN LOCAL AREAS

8.1 Introduction

In public corruption, private gains incentive civil servants to take actions displacing community interests, often colluding with one or more actors external to the public context. Any possible consequence is neither limited to a single public or private entity nor to a specific time horizon.

Wicked problems – such as corruption – cannot be completely fixed, because of their intricacy, variation over time, multi-actor, -sector and -level features (Bianchi, 2016). Nevertheless, it does not mean to stop the effort to eradicate them. Even on grounds of disheartening failures of well-arranged, whole-one-sided public initiatives, by taking into account levels of viability, sacrifice and expected benefits, the endeavour in this direction calls for aware and deliberated decision-making processes based on a joint and committed intervention, which might be able to ensure an inclusion as broad as the key-interlocutors' interests pragmatically involved.

Public agencies have to comply with national and supranational anti-corruption regulations, which are naturally pivoted on legal and economic aspects of the problem at hand. Due to their abstraction and generalisation, they often disregard the cultural factors of the environments where they find application, which are instead crucial for enhancing the likelihood of good response to public reforms at any territorial level, especially where regional or even local cultural configurations sensibly differ one from another. Accordingly, designing anti-corruption strategies should be carefully conducted by means of narrow-scope lens for economic, political and, especially, cultural analyses of recipient communities, bearing in mind that any kind of verbose statement or promise of miraculous solutions should be avoided.

Under this point of view, the *collective action theory* (Marquette & Peiffer, 2015; Mungiu-Pippidi, 2015; Olson, 1971; Ostrom et al., 1992; Persson et al., 2013; Rothstein & Varrach, 2017) moves from the consideration that an individual corrupts or is corrupted on the basis of the general

proneness within the system which he/she belongs to (Jancsics, 2019). Within such a system, coherently with the neo-institutional approach of corruption rooting in governmental contexts (Pizzorno, 1992b; Vannucci, 2012, 2015), the co-evolution processes between economic convenience, legal opportunities and cultural basis explain how corruption produces growing rewards over time, annihilates ethical constraints and creates barriers from exogenous interferences.

Given their capability to directly affect the daily lives of citizens, local governments are the most evident form of public governance systems (Masters & Graycar, 2016) and, as such, they are able to play a role of frontline in hindering public corruption. Nonetheless, the active commitment of public bodies based on a unilateral approach may result appropriate for temporary control of corruption and lead the considered system to an acceptable equilibrium where levels of wrongdoings are kept provisionally ‘frozen’. In other terms, disturbances and shocks deliberately provoked by local policy-makers to curb corrupt practices may turn out to be ineffective in the long-run, due to the resilience of pathological patterns that have rooted in communities or organisations characterised by favourable governance structures and legacy.

Adopting an *outside-in* perspective (Bianchi et al., 2019: 2) in policy design may allow local governments to understand the extent to which possible collaborative settings with strategic interlocutors may enable key-actors to affect the shared community resources that are considered decisive to make an anti-corruption strategy successful, by emphasising the underlying feedback structure of relevant cause-effect relationships. Therefore, even though empirical evidence on collaborative governance in anti-corruption agendas is rather scarce (Poocharoen, 2014), this chapter experiments with a collaborative strategy as a policy suggestion for preventing corruption in Cerda Municipality through a DPG approach (Bianchi et al., 2019; Xavier & Bianchi, 2019).

The following questions will be addressed: *What are the causal interdependencies and the main decisional levers enabling a potential anti-corruption collaborative governance strategy based on the dynamic performance governance approach? What are the roles played by the policy-network participants in designing and implementing such a strategy?*

In the first part of the chapter, a literature overview of collaborative governance and stakeholder engagement strategies in anti-corruption is proposed. In the second part of the chapter, a stakeholder identification and analysis (Bryson, 2004; Mitchell, Agle, & Wood, 1997) is meant to identify roles, powers, tools, possible incentives and disincentives in a collaboration-based anti-

corruption policy for the case of Cerda Municipality. Later, supported by some empirical cases of cities having implemented successful anti-corruption agendas, possible causal relationships underlying a collaborative governance scenario are framed through a CLD and a DPG chart. The chapter concludes by arguing likely feasibility and concerns regarding such a policy and the reasons to rely on academia to facilitate design and implementation of collaborative anti-corruption policies.

It is opportune to highlight that the policy is here exclusively proposed as a *preventive measure* aimed at reducing future risks of inappropriate behaviours in the local area of Cerda, in which every local government should consider to engage actively, with no regards to the actual likelihood of corruption. Albeit not currently present in Cerda Municipality, corruption may silently insinuate in every moment of the public activity, just like in whatever other local authority. Collaboration-based projects may, thus, represent integrative strategies strengthening the already-in-use anti-corruption tools provided by national regulations or selected at organisational level.

8.2 Collaborative governance: An overview

The concept of ‘good governance’ can be generally understood as a set of social rules and facts related to accepted ways to behave (Offe, 2009: 553). The principles to which it is inspired are, therefore, essential to reduce risk of corruption (United States Institute of Peace, 2010). These focus on: individuals’ participation; transparency of decisions and information; institutional effectiveness and efficiency; responsiveness of institutions; governmental institutions, private sector and civil society’s accountability; consensus-oriented approach; equity and inclusiveness of society’s members; fair legal frameworks (UNESCO, 2005).

Each of the elements listed above becomes as more significant as corruption represents a problem with a bigger and bigger complexity and systematicity, such that simplistically designing policies and make rules operating is not sufficient to successfully cope with it. For similar reasons, organisations usually collaborate with each other when the effort of a single public institution is not sufficient to reach a collective objective alone (Agranoff & McGuire, 2001; Bryson, Crosby, & Stone, 2006; Hudson, Hardy, Henwood, & Wistow, 1999; Roberts, 2001; Weisel & Shalvi, 2015). Especially in presence of uncontrollable environmental – both cultural and political – elements and unforecastable outcomes of public action, such as in corruption issues, to align visions and intents of multiple key-actors who have different and, sometimes, contrasting stakes,

requires an approach able to foster broad inclusiveness in decision-making and accountability of all the parties concerned.

Especially in the last 20 years, many studies stressed on the need of shared accountability and outcomes of public action, offering different definitions and conceptualisations of possible settings of multi-stakeholder engagement, such as: network model (Löffler, 2003); joined-up government (Bogdanor, 2005; Christensen, Fimreite, & Lægreid, 2014); whole-of-government (Christensen & Lægreid, 2007; OECD, 2005); horizontal management (Peters, 2015); and so forth. All of them are driven by multi-dimensional and multi-level arrangements features of societal issues requiring a collaborative and systemic approach of intervention (Halligan, Sarrico, & Rhodes, 2012).

At this regard, Hemmati (2002: 2) mainly focused on the significance of dialogue between primary stakeholders in relation to a specific problem and, by using the terms '*multi-stakeholder process*', referred to a complex of actions finalised to engage key-stakeholders in communicative settings, which allow for mutual accountability and fairness, hence supporting decision-finding and -making processes on the basis of precepts of participation and transparency, as well as boosting partnerships and reinforce stakeholder networks.

Solid communicative foundations are the prerequisite of an effective and enduring *collaboration*. It can be understood as a gradual process through which all the parties involved share tangible and intangible resources, risks, responsibilities and rewards to plan, realise and evaluate together a series of programmed activities aimed at reaching a common purpose or solving a common issue, thus reciprocally improving their own abilities and mutual trust (Camarinha-Matos & Afsarmanesh, 2006: 3-4). A similar definition was adopted by Bryson et al. (2006: 44) to define 'cross-sector collaboration', highlighting the possibility to only 'link' rather than also 'share' resources, abilities and activities between entities that belong to different sectors, as well as stressing the necessity to recur to it when a given outcome might not be attained if each organisation worked alone within its sectorial boundaries.

Although through a different term, Byrne, Arnold, and Nagano (2010) substantially provided the same concept by talking about *coalitions*, considered as formal collaboration structures able to involve a broad range of organisational, group and individual key-actors who, guided by a unique vision, put in place joint activities to reach common objectives by sharing

intangible and tangible resources, boosting a participatory approach and relying on networking, lobbying and community involvement.

Very close to the broad concept of ‘multi-stakeholder process’ conceived by Hemmati (2002) is the framework provided by Ansell and Gash (2007), who appreciably emphasised the significance of communication between participants and their crucial role as *active decision-makers*, as well as fixed the boundaries between what is collaboration in the public domain and what is not. In particular, triggered by public sector’s gaps – e.g., considerable regulation costs and politicisation, and failures of public policy implementation – or opportunities – e.g., knowledge and institutional capacity enhancements –, collaborative governance is an explicit and formal strategy implying the non-merely-consultative engagement of non-state parties in joint decision-making processes with public agencies (Bingham & O’Leary, 2008; Koliba, Meek, & Zia, 2011), in order to reach consensus on public policies and issues, based on dyadic and harmonious communication flows (Ansell & Gash, 2007).

Typically, the stakeholder arrangement of a collaborative approach includes heterogeneous voices, such as state staff, politicians, representatives of third-sector organisations – i.e., NGOs –, civil, entrepreneurial and scientific communities, and so on (Søreide & Truex, 2011). The initiative launched by public sector organisations; the presence of nonstate organisations being truly engaged in consensus-oriented decision-making processes and, therefore, accountable for policy outcomes; the existence of formal collaborative arrangements underlying a clear strategy to rule the reciprocal influences between stakeholders and agencies; and the locus on public management or policies (Ansell & Gash, 2007: 544-547) are the mainstream elements of this kind of interactive governance, which relies on shared resources, joint structures and activities (Walter & Petr, 2000). In short, multi-stakeholder participation is aimed to foster discussion, bargaining and mutual learning, in a way to “bridge the gap between grass-roots action and top-down policy” (Søreide & Truex, 2011: 4).

Collaborative governance should not be confused with other forms of joint action between public and private actors. With this regard, Camarinha-Matos and Afsarmanesh (2006) single collaboration out from networking, coordination and cooperation. In this order, each of them is progressively included in the following configuration, so as to increase its content and scope until to shape the broad concept of collaboration. Accordingly, on the one hand, *networking* only includes communicative processes and exchange of information for members’ reciprocal

advantage and *coordination* – identifiable, for instance, in public-private partnerships (PPPs), where joint decision-making is put on the back burner (Ansell & Gash, 2007: 548) – is exclusively an exchange of information, alignment or modification of activities to reach more efficient results; on the other hand, *cooperation* includes activity adaptation, exchange of information, as well as resource sharing for the attainment of compatible objectives (Camarinha-Matos & Afsarmanesh, 2006: 3). What is lacking in the latter definition to shape collaboration is the joint effort, identity and decision-making to reach not compatible, but *common* goals.

Finally, the ‘formality’ criterion distinguishes collaborative governance from any other kind of policy network, where collaboration remains implicit and informal (Ansell & Gash, 2007: 547-548). Also, managerialism is not at the core of collaborative governance (2007: 547), but it may be still be present in what is called ‘co-production’ (Alford, 2014; Bovaird, 2007; Nabatchi et al., 2017; Nabatchi, Steen, Sicilia, & Brand, 2016; Osborne, Radnor, & Nasi, 2012; Radnor, Osborne, Kinder, & Mutton, 2014) or ‘value co-creation’ (Osborne, 2018; Osborne, Radnor, & Strokosch, 2016). Indeed, co-production is usually kept distinct from other offshoots of the NPG paradigm, since any form of interactive governance which does not directly involve lay actors is automatically excluded from it (Nabatchi et al., 2017; Sancino & Jacklin-Jarvis, 2016). In spite this conceptual difference, however, existent co-production processes may disclose some critical leverage-points able to trigger collaboration initiatives, where they are needed and feasible.

8.3 Stakeholder engagement modes in anti-corruption initiatives

Anti-corruptionism constitutes a controversial topic because of the fluidity in defining corruption itself and, despite too little attention has been paid to it by scholars and practitioners, global morality has made corruption less tolerable everywhere (Sampson, 2015). This renewed spirit of justice, fair economic and social equality is ascribable to the set of movements of *collective action* arisen throughout the world.

Collective action is “a process of cooperation between various stakeholders with the aim of jointly countering corruption” (United Nations Global Compact, 2013: 2). The reaction to the worldwide scourge of corruption has led social movements to demand greater accountability by politicians and economic powers (della Porta, 2017). Throughout the world, public interest groups, such as Transparency International (TI), and social movements in the form of anti-austerity protests and direct actions, such as Anonymous (Jarvis, 2014) and WikiLeaks (McCarthy, 2015),

have represented, with different narratives, the main forms of organised anti-corruption and for-transparency engagement of civil society (della Porta, 2017).

Political opportunities (della Porta, 1995; Kriesi, Koopmans, Duyvendak, & Giugni, 1995; Tarrow, 1989); tangible and cultural resources made ready for action (della Porta & Diani, 2006); enabling processes; structural elements affecting the interaction between public and private sectors; were highlighted as critical reinforcing factors of civil mobilization (della Porta, 2017). In particular, especially in the case of rampant corruption, a purposeful reaction requires coordination (Marquette & Peiffer, 2015: 10), which is not an individual's isolated action, as it is based on accurate planning and collective decision-making on mobilization of resources and structures finalised to interlink heterogeneous kinds of stakeholder operating within complex networks, such as citizen associations, trade unions, movements and political parties (della Porta, 2017: 668-669).

Confirming the emphasis on reorganisation of bureaucracy structures, educational campaigns, international agreements and so on, given by scholars from different disciplinary fields (Gans-Morse, Borges, Makarin, Mannah-Blankson, Nickow, & Zhang, 2018), top-down anti-corruption policies consisting of monitoring, regulating and imposing of penalties, such as staff whistle-blowing and community monitoring, have been explored more than bottom-up initiatives launched by category associations and citizens in the corruption discourse (Jancsics, 2019). Despite the increasing requirement of multi-stakeholder joint efforts against corruption, the practice seems to have mainly favoured co-production practices. In fact, with the aim to encourage individuals to report corruptive practices safely, worldwide governmental institutions and public agencies have increasingly made available whistleblowing systems to allow individuals to report personal or third-parts experiences of corruptive practices anonymously. Interestingly, in the typology provided by Nabatchi et al. (2017), such a kind of tool can be considered as the typical form of individual co-production, which may imply positive spillover effects to specific groups of interests or overall communities.

Although with a minor diffusion and frequency, anti-corruption initiatives have also involved whole-of-government (Christensen & Lægheid, 2007) strategies for specific forms of misconduct or public sectors being particularly struck at all territorial levels. They have assumed different labels, such as multi-stakeholder processes (Søreide & Truex, 2011), coalitions (Byrne et al., 2010) and collective actions (United Nations Global Compact, 2010).

Recognising the need of a multi-stakeholder approach in place of alternative solutions that suffer from weaknesses in boosting sector governance and reducing risk of corruption (Søreide & Truex, 2011), institutionalism has acquired a growing importance to respond to such challenges in specific contexts due to the general failure of politics as relevant frontline-actor (Fritzen, 2005).

The national anti-corruption agencies (ACAs) represent the result of this recognition over the last decades. Theoretically speaking, these agencies are recognised for their political independence, permanency, position in the national political and legal network, scope of authority, accountability, transparency, investigatory powers, preventive and repressive action against corruptive phenomena (Anechiarico, 2010; Charron, 2008). In addition, ACAs are not stand-alone public organisations (Byrne et al., 2010) and, as such, they have been advocated by international bodies, such as the OECD, TI and the UN to promote collaboration with civil society (Poocharoen, 2014) and enhance public confidence and legitimacy of reforms (Søreide & Truex, 2011).

Typically, public agencies either start or trigger a multi-stakeholder joint intervention, having a primary role of leadership in collaborative governance (Ansell & Gash, 2007), thus representing central reference points that make easier starting joint efforts to cope with corruption issues (Poocharoen, 2014: 17). Besides, as ‘backbone organisations’, their presence allow for setting a neutral collaborative environment, coaching participating actors and adding legitimacy to the collaboration process (Dubow, Hug, Serafini, & Litzler, 2018). In other terms, public agencies are ‘starters’ and ‘catalysts’ of anti-corruption joint initiatives, whose cornerstone, as well as critical success factor, is to ensure purposeful levels of stakeholder engagement being based on the dialogue dimensions of inclusion, openness, tolerance, empowerment and transparency (Pederson, 2006).

Nevertheless, most of the relevant literature has been sceptical about the national ACAs’ effectiveness (Gans-Morse et al., 2018), as their work seems to have not generated appreciable outcomes in controlling corruption (Mungiu-Pippidi, 2015). In particular, risks of loss of trust in the anti-corruption NGOs are mainly due, on the one hand, to possible compromises and conflicts of interest that may arise in coalition-building strategies, and, on the other hand, to a bounded approach based on negotiation and cooperation, which does not allow for any open confrontation with critical stakeholders of the civil society, if not sporadically at domestic level (de Sousa, Larmour, & Hindess, 2009; della Porta, 2017). Moreover, voluntary involvement of unconvincing actors waving the anti-corruption flag may actually question the ACAs’ credibility (Sampson,

2015). Finally, the general scarce information available online and the lack of responsiveness to recent research surveys, which attempted to assess the ACAs' and related networks' performance (Schütte, 2020), cannot be considered positive signals of their reliability and effectiveness.

8.3.1 Main frameworks enabling collaboration against corruption

Multi-stakeholder initiatives aimed at warding corruption off trace – sometimes partially – the main characteristics and contents of the Ansell and Gash's (2007) collaborative governance framework. Interestingly, in their original meanings, the terms 'collaboration' and 'corruption' are exactly at the opposite extremes, provided that the former is "derived from the Latin '*collaborare*', meaning 'to work together', and can be seen as a process of shared creation" (Camarinha-Matos & Afsarmanesh, 2006: 3), while the latter derives from the Latin *cum* and *rumpere*, which mean 'to break together' (Ferrante & Vannucci, 2017: 33).

As it was previously highlighted, corruption has always context-dependent specifications (Davis, 2009; Lambsdorff & Schulze, 2015) and, therefore, dealing with such a phenomenon necessarily requires a special focus on intensity, dynamicity and cyclicity of wrongdoings, which often relying on avantgarde mechanisms and intricate gears (de Sousa et al., 2009). Framing interrelationships among key-actors belonging to specific institutional settings appear, therefore, to be essential to boost good governance and, in so doing, increase organisational stability, counteract environmental uncertainty and complexity, as well as reduce transactional costs (Bryson et al., 2006).

Coherently with the nature of corruption, the collaborative anti-corruption frameworks are multiple, various and variable in time and space. The approaches, perspectives, models and tools that have mainly been adopted by practitioners in projects of joint anti-corruption effort are characterised by different degrees of: stakeholder inclusion; formality; orientation to consensus of the audience; communication and information sharing among participants; alignment of compatible and/or complementary intents for achieving reciprocal benefits; joint policy- and decision-making processes; joint implementation of the designed policies; and so forth. As such, this sub-section mainly touches on frameworks that have produced a significant echo in the literature and in the practice, and whose features are easily recognisable in each of them, often differing from one another in terms of label used to identify them only.

Poocharoen (2014) defined a general framework for designing collaborative anti-corruption initiatives, which is comprehensive of five dimensions: kind of corruption; typology of anti-corruption work; object of collaboration; nature of collaboration; actors involved. Accordingly, in relation to the kind of anti-corruption work, specific agencies should be involved in the collaboration. For instance, in the case of a punishment-and-persecution purpose, collaboration is suggested between key government agencies, while in the case of prevention objects private sector should be involved by virtue of the focused sectorial knowledge and expertise (Poocharoen, 2014).

Søreide and Truex (2011) made a distinction between ‘multi-stakeholder forums for dialogue’, ‘platforms’ and ‘groups with a mandate’, according to the purpose to respectively provide participants with: opportunities for joint learning and understanding of the problem at hand; a scene where negotiating, generating and, possibly, agreeing upon specific policies; a joint action and decision-making to implement and oversee the selected policies.

Collective Actions (CAs) have mainly been adopted for engaging companies, governments and civil society organisations in ensuring transparency in public procurement (United Nations Global Compact, 2010). It is possible to distinguish between ‘pure’ CAs models, which exclusively involve businesses, and ‘hybrid’ ones, formed by either private-public or private-civil society partnerships (United Nations Global Compact, 2015). CAs move from the recognised need of a broad participation of different actors involved in the public procurement process, being they either belonging to the ‘demand side’ – i.e., civil servants – or to the ‘supply-side’ – i.e., private sector organisations –, and follow three fundamental principles: the formal agreement involves multiple stakeholders; public agencies are parties and/or promoters of the agreement; third parties, being usually represented by civil society organizations, assume the role of facilitators (2015).

The World Bank (2008) identified four kinds of CAs having different degree of complexity, according to timeframe – i.e., short-term or long-term – and engagement level – ethical commitment or external enforcement –, that is to say: anti-corruption declarations; principle-based initiatives; integrity pacts (IPs); certifying business coalitions. The first two groups are ethics-based and respectively include short- and long-run principle-binding signatories and commitment steered by mutual pressure, but the latter can also imply cooperation with government bodies (2008). Diversely, IPs are formal agreements between the parties involved, which imply external monitoring of the procurement process and penalties for violations; while ‘certifying

business coalitions' involve companies that obtain membership and certification only if compliant with particular requirements that are endorsed externally (2008).

A similar model is provided by the Center for Private Enterprise (CIPE). The main differences are about the parameters of classification – simpler/more complex for the commitment degree and transaction-specific/long-term for the timeframe – and the broader 'multi-stakeholder coalition' perspective instead of the simple 'certifying business coalition' (Morrell & Bettcher, 2013).

IPs are noteworthy to be deepened more in detail, as the practice has greatly recurred to them, most probably for the significance of the corruption form to which they relate. IPs focus on public procurement and contracting (United Nations Global Compact, 2015). They outline rights and obligations in formal contracts between a governmental authority and tenderers, as well as between the same bidders, providing for no-bribery agreements; so as to enable governments to contain costly and distorting impact of public procurement corruption and, as a result, guarantee citizens adequate public services (Olaya Garcia, 2013: 8). Within this framework, involvement of different audiences throughout the procurement process; political will; arrangement of an external monitoring activity; human and financial resources; time and knowledge; 'lead implementer' skills; commitment; credibility; are all considered as critical success factors of an IP (2013).

Each of the CA solutions can be adopted progressively within a single project, depending on the level of awareness and willingness of participants. For instance, to begin with a certifying business coalition should be considered for contexts with high proneness to corruptive practices in public procurement. Later, a gradual reduction of commitment may be practiced if made possible by a significant and detectable enhancement in civic morality among participants over time.

Nevertheless, in spite of several and unique features of every stakeholder-inclusive approach in anti-corruption initiatives, two elements need to be always present: firstly, to guarantee transparency to citizens through free access to the relevant information; secondly, to define operational standards being not specifically intended for anti-corruption scopes, but significant to address it (Søreide & Truex, 2011).

8.3.2 Failure factors of collaboration in anti-corruption projects

In line with a network-based approach (Rhodes, 1997), anti-corruption efforts have usually regarded prosecution and prevention of corrupt phenomena, social campaigns and educational

programmes (Doig, Watt, & Williams, 2007; Meagher, 2005; Poocharoen, 2014). Nevertheless, albeit the majority of governments has created tailored ACAs and issued *ad hoc* regulation, academics and practitioners have unexpectedly failed to frame collaborative governance settings to hinder corruption (Poocharoen, 2014: 2).

A possible explanation may be that the implementation of joint-action approaches always shows some limitations (Halligan et al., 2012; Huxham, 2000; Newman, Barnes, Sullivan, & Knops, 2004), which may have disincentivised collaboration initiatives. These may be sought in particular configurations of one or more variables, singled out by Marquette and Peiffer (2015), exerting a significant influence on the success of collaborations, namely: group size; group heterogeneity; face-to-face communication; repeated interaction; trust/good reputations; interdependence; voluntary group membership; heuristics/norms; monitoring/transparency; long time horizons; salience of collective good.

Issues that may challenge whatever collaborative initiative are also traced in anti-corruption efforts, such as: the risk of low commitment and scarce expectations on the collaboration-based initiative; the possible existence of conflicts of interest; the lack of information to support the multi-stakeholder process; the lack of authority and participants' motivation; difficulties in achieving group consensus; imbalances in negotiation power, duties and resources (Søreide & Truex, 2011). Furthermore, other criticalities may arise from inadequate attention on the elements identified within the Ansell and Gash's (2007) framework, such as: mismanagement of managerial interdependences; scarce trust building; goal misalignment; poor communication; insufficient resource gathering; modest collaborative process legitimacy; and so forth.

Fighting corruption by means of collaborative networks may create further specific problems in terms of corruption detection, information collection and commitment by corrupters, corrupted individuals (Poocharoen, 2014). Initial commitment may lose momentum and conflict among upholders may arise as soon as the initial agreement gets started the collaboration due to internal conflicts of interest (Abubakar et al., 2017). In addition, there might be some other deterrent factors, such as: agencies' resistance in sharing sensitive information among participants; changes in regulations, laws and codes of conduct; and the low profile that the civil society organisations (CSOs) may prefer to keep in place of an active decision-maker role (Poocharoen, 2014).

Critical factors are also: the role of media outlets in shaping people's perception (Lambsdorff, 2001a); the opportunity to produce evidence of the mutual and blurred agreement between corrupter and corrupt; the ACAs' risk of seeing their efforts to go up in smoke because of specific parties' intentions to undermine their work, with the consequence for ACAs to not only to be labelled as untrustworthy, but also to distrust TV, radio, journals and the same civil society (Gilman, 2010: VII). Indeed, the participants' mutual perceptions of the behaviour assumed in carrying out their tasks within the joint structures – which shape the group trust – is a fundamental factor affecting the stakeholders' will to contribute to a collaborative anti-corruption project (Elster, 1985; Marquette & Peiffer, 2015; Ostrom, 1990; Seabright, 1993).

At this regard, the amount/quality of information released by the key-actors involved reveals to be crucial for the success of the overall process: uncertainty of the success of an anti-corruption collaborative effort is especially on the real intentions and incentives of group members and, as a result, on the extent to which they want to genuinely operate in line with the collaborative process or, contrarily, destabilise it (Søreide & Truex, 2011). In this last case, “for political reasons, collective action problems can be carefully crafted or maintained, as a way of undermining the effectiveness of institutions meant to challenge corruption” (Marquette & Peiffer, 2015: 10).

Despite anti-corruption initiatives should come “in fear and moral indignation, not in calculated efforts at personal gain” (Jasper, 1997: 3), government departments involved may hide critical information about poor performance to maintain electoral consensus and resist to power sharing that derives from multi-stakeholder initiatives, scared by the possibility of uncontrollable deviations from their policy agenda (Søreide & Truex, 2011).

For the private sector, hiding information on damaging operations may result as much important as profit maximization (Søreide & Truex, 2011). Disregarding social responsibility, there might also be room for pre-existent agreements with the public one finalised to maintain the status quo, without benefits – or even with dangers – for the multi-stakeholder process (2011). Likewise, CSOs' representatives may not be enough active and lead to unpleasant side-effects (2011). In particular, depending on a given context, one may even imagine situations where CSOs' representatives take advantages from to make their voices heard and affect the group process for personal gain, by exploiting the acquired visibility.

Effectiveness of collaboration increases as members of collaborations are aware of the form of corruption they are trying to cope with and the desired outcomes to reach (Poocharoen,

2014). Accordingly, transparency is fundamental to enhance citizens' policy understanding and, as a result, compliance (Porumbescu, Lindeman, Ceka, & Cucciniello, 2017), but insufficient political goodwill and existent quality of governance may constraint it (Søreide & Truex, 2011). Political willingness is also crucial to enforce legal framework and, as such, it should be considered as an endogenous element of collective action (Marquette & Peiffer, 2015).

Finally, poor facilitative skills for collaborative leadership, such as communication capabilities supporting stakeholder engagement and psychological conditions; strategies lacking of trajectory, clear responsibilities and measurable objectives; the influence of the upholders' institutional design on operational interdependence, can strongly affect collaboration (Abubakar et al., 2017; Ansell & Gash, 2007).

Hindering corruption implies the adoption of *ad hoc* strategies. As such, to fail in diagnosing the correct form of corruption and, consequentially, designing curbing policies may explain the heterogeneity of outcomes related to several anti-corruption initiatives (Jancsics, 2019). Sometimes, multi-stakeholder initiatives may reduce their effectiveness just because of the pretension to cope with several challenging issues together at once, when a narrower and better focused approach may reveal to be more desirable, even where corruption constitutes a significant cause of poor sectorial governance (Søreide & Truex, 2011: 7).

Under a totally different point of view, not only collaboration may not be a panacea, but it may even favourite corruption occurrences (Weisel & Shalvi, 2015). In the public domain, poor governance contexts lay the foundations of this kind risk when the proximity with the private sector and communities becomes greater and greater (Minkova, 2018). As some studies showed, blurred relationships between governments and nonstate institutions involved in anti-corruption initiatives may be susceptible to invalidate significant premises of their own success due to, for instance, internal sabotages, mutual undercuts, preventive controls on members and the exclusion of undesirable NGOs or the civil society itself (Zaloznaya, Reisinger, & Claypool, 2018).

It emerges the need of a credible, reliable, independent and capable *champion* for starting and guiding stakeholder coalitions in anti-corruption initiative, namely an individual or a group of people being assertive, intelligent organiser/organisers and change agent/agents (Crosby & Bryson, 2010: 219). That, recognising the superior capability of collaboration arrangements to represent powerful tools devoted to this aim, often higher than stand-alone individual efforts (Byrne et al., 2010: 25).

8.4 Local anti-corruption initiatives from the world

With different levels of autonomy, local governments are endowed with authority and direct interaction stemming from the greatest closeness with the served communities (Halligan et al., 2012: 230). They represent the direct link between citizens and public officials and, as the most evident form of public governance systems, assume a critical role in curbing any form of corruption (Masters & Graycar, 2016).

Local governments involve several of the multi-sector functions of a national government and councils deal with the totality of public services as a whole, so that it is possible to consider them as a discrete sector (Pyman et al., 2018). Bearing in mind that every kind of reaction to repress/prevent corrupt trends should strictly focus on the specific form of the problem faced (Klitgaard et al., 2000), the local governments' multisectoral settings may enable them to specify a unique anti-corruption agenda impacting on different public sectors contemporary, where national or worldwide anti-corruption programmes only concentrate on a particular sector at a time (Søreide & Truex, 2011).

As a possible approach to reduce corruption at local level, any multi-stakeholder configuration must take the view that, to hinder it concretely, common recognition of the problem and sincere pressure for a purposeful counteraction are extremely needed. Empirical research focusing on collaborative anti-corruption strategies at local level is scarce (Poocharoen, 2014), probably not because of academic indolence, but rather of lack of policy- and decision-makers' 'soul-searching'. That constitutes a thunderous signal for practitioners and scholars, who should, therefore, pay more attention on this particular topic and put their expertise at the service of recidivistic societies.

Most of the literature contributions focused on the effectiveness of ACAs in either single (Chan, 2001; Seidman, 1941) or cross-city analyses (Anechiarico, 2010; Huberts, Anechiarico, & Six, 2008) of anti-corruption initiatives. However, some evidences exist about *who* to get involved and *how* to enhance the likelihood of success of anti-corruption projects at municipal level. More precisely, regarding the '*who*', citizens and policy-makers play a primary role in tackling corruption, followed by other possible agents, such as public officers, private companies and academia (URAI, 2017: 20-21). Obviously, the inclusion of other parts of the civil society is welcomed, especially of media outlets, whose involvement in anti-corruption projects may further constitute a key-factor for detecting some tangible result, as Mungiu-Pippidi (2015: 173)

emphasised in relation to 471 civil society initiatives launched in sixteen Eastern Europe over the first decade of 2000s. Concerning the ‘*how*’, instead, taking into account that citizens need to be empowered and their passivity on the issue reduced, politics should guarantee active leadership, expertise, honesty and trust-building in governmental institutions through citizenship mechanisms and young people’s involvement in public life (URAIA, 2017: 20).

Administrative transparency, good governance, public officers’ accountability and citizens’ participation in policy-making and budgeting are key-drivers of any local anti-corruption effort (URAIA, 2017: 21). Above all, citizens’ participation in planning – and decision-making as well – of public services might be appropriate for supporting local politicians’ credibility of engaging in such initiatives and improving public scrutiny; even more in the case where participation assumes the larger connotation of what Vaillancourt (2009) and Pestoff (2012) respectively called ‘co-construction’ and ‘co-governance’, which also involves NGOs and private-sector agents.

Nonetheless, as it was discussed in the previous section, there might be some inherent subjective incentives and deterrents that, without a suitable debate forum and facilitation, may undermine any joint endeavour to tackle corruption, such as low political consensus, scarce social responsibility of involved firms and information-sharing avoidance from any sides (Søreide & Truex, 2011: 9-11). In addition, objective factors, such as mayor-council form of government in municipalities (Nelson & Afonso, 2019) and hyper-regulation may also create opportunities for exploiting administrative and political vulnerabilities that favourite the diffusion of misconducts, especially in contexts endowed with limited resources (URAIA, 2017: 21).

Glimmers for corruption, such as shortage of skilled public officials, high proximity with communities and inexistent external monitoring (Minkova, 2018: 6-7), may endure and show clear signals of resilience, in spite of actions based on tested sets of counteracting measures. Furthermore, there might be room for some contradictions between citizens’ perception and their factual experience of corruption that may challenge any attempt of diagnosis and/or exert a friction force in consequential interventions. This phenomenon was detected in some local governments of Latin America, where citizens tend to detach themselves from the political life and refuse to be active in democratic governance if they perceive their governments as corrupt, although their participation to the local governance is positively related to their corruption experience (Neshkova & Kalesnikaite, 2019). This mismatch recalls the Argyris and Schon’s (1978) discrepancy between

theory espoused – i.e., individuals’ view and values they believe their behaviour is anchored to – and *theory-in-use* – i.e., individuals’ values and view actually descending by their behaviour –, which may also be interesting to verify within organisational contexts, where, on the other hand, this theoretical elaboration actually originated¹.

However, civil monitoring and action are still significant key-factors for enhancing local civil servants’ accountability and transparency, which require a strong attention on indigenous political and administrative mindsets. The importance of this kind of emphasis is corroborated by some successful local government collaboration-based initiatives from some parts of the world, where policy- and decision-makers overturned the existent infamous pro-corruption models into a severe and example anti-corruption paradigms. These experiences provide appreciable insights in envisaging possible policies being based on citizenship mechanisms and collaborative governance.

8.4.1 Overturning political culture and promoting citizen participation in La Paz, Bolivia

In La Paz, Bolivia, the mayor Juan Del Granado, on a par with his predecessor Ronald MacLean-Abaroa², continued the repressive campaign to curb the endemic corruption within the local government immediately after his election in 1999, by means of a harsh agenda and positive incentives for good administrative practices. It is possible to distinguish both an *inside-out* and an *outside-in* point of view (Bianchi et al., 2019: 2) of such a programme, where the former focuses on the institutional perspective of performance – in this case, to eradicate corruption from the local government –, while the latter stresses on the Del Granado and his staff’s capabilities to adopt collaboration-based policies that impacted on shared community resources considered strategic for the agenda goals.

Under an *inside-out* approach, Del Granado made a radical cultural change in the local administration by means of the ‘Zero-Tolerance for Corruption’ policy programme, which completely overturned the existent tendency to accept bribes on the basis of three pillars: the mandatory persecution of wrongdoings, supported by codes of conduct and accompanied by the

¹ For more details, see also Argyris, C. 1985. *Strategy, change and defensive routines*. Boston: Pitman, Edmondson, A. C. 1996. Three Faces of Eden: The Persistence of Competing Theories and Multiple Diagnoses in Organizational Intervention Research. *Human Relations*, 49(5): 571-595.

² On the government experience of MacLean-Abaroa, cf. Klitgaard, R., Maclean-Abaroa, R., & Parris, H. L. 2000. *Corrupt cities: a practical guide to cure and prevention*: 180. California: Institute for Contemporary Studies: Institute for Contemporary Studies. It is interesting to highlight that, as in the Cerda case, the rooted corrupt culture brought again La Paz to the previous pathological political and administrative models.

launch of initiatives aimed at, on the one hand, creating feeling for the institution and pride in public officials and, on the other hand, reconstructing the municipality's good image; the restoration of clean governance, transparency and accountability of the public institution; a fiscal recovery programme finalised to collect due taxes (Zúñiga & Heywood, 2015: 2). More in particular, the Del Granado's administration, firstly, created the 'Transparency Unit' to deal with corruption through a series of tools for whistleblowing and the 'Continuous Improvement Units' to catalyse bureaucratic procedures and, in addition, adopted a series of measures to: guarantee competition in public contracting and tendering; ensure supervision of public works in terms of material quality and deadlines; set out to appoint public officials by considering their performance instead of clientelist reasons; and get back the administration's credibility (2015: 2-4)³.

Under an *outside-in* perspective, the Del Granado's agenda envisaged building citizens' trust in the local government through participative mechanisms (Zúñiga & Heywood, 2015: 2). Such an approach implied the resort to pertinent discussion forums and enabled the same citizens to actively engage in careful policy examinations, such as to concretely foster their accountable participation in the City management and, finally, creating genuine social trust. Notably, the La Paz's citizens:

- were allowed to access the city's control room by moving proposals and submitting complaints to the local authorities through the 'District Neighborhood Hearings' – formally called '*audiencias vecinales distritales*';
- were emboldened to get involved actively in budgeting processes of municipal projects;
- acquired a more significant control over the city public management by means of the 'Citizen Planning Councils' – formally labelled as '*consejos ciudadanos de planificación*' –, representing a place for policy discussion arranged and steered by a mayor's representative;
- by means of a citizen entity called 'La Paz Assembly', were enabled to closely examine medium- and long-term municipal policies;
- were actively involved in multiple forums for discussion – formally called '*mesas de diálogo*' –, such as the Municipal Development Plan and other similar bodies, in order to address particularly strategic issues together with municipal servants (Zúñiga & Heywood, 2015: 5).

³ As it is possible to notice, such political agenda pillars and measures were already discussed in Chapter 6 on the occasion of the policy suggestions for the case of Cerda Municipality.

The success of the Del Granado's strategy relied on the cultivation of a value basis pivoted around the principles of institutional holism and culture; a-politization and fairness of anti-corruption leadership; accountability; self-respect; solidarity; public appreciation; personal accomplishment; institutional dignity; civic pride; and integrity; which, on the one hand, proved to be together more effective than the rhetorical anti-corruption national campaigns in Bolivia and, on the other hand, triggered the subsequent political reaction that has promoted the greater awareness of the municipal government to work with major proximity alongside schools and other fundamental entities of the future local community (Zúñiga & Heywood, 2015: 6-8).

8.4.2 Involving citizens in decision-making in urban development processes in Guadalajara, Mexico

Another interesting experience was that of Guadalajara, which is a metropolitan area with nine municipalities and around 4.5 million people. In order to curb corruption in permits issuing and urban planning, local politics implemented an anti-corruption strategy including: accessibility to local government data; availability of infrastructural and performance indicators; multiple participation mechanisms aimed to involve citizens in local decision-making; and the implementation of the 'Integral City Management Platform' for improving the local management systems and guaranteeing citizen and governmental scrutiny over the local urban development processes (URAIA, 2017: 18).

Despite the Guadalajara's experience seems to be mostly ascribable to a co-production phenomenon, it is worthy of attention not only for the adherence of some policies to collaborative settings of public governance – with particular reference to the citizens' involvement in public decision-making –, but also for the challenges that emerged to implement its strategy, which may call for a greater adoption of collaboration-based tools, such as: gaps in public service digitalisation; change resistance; and issues in approaching and dialoguing with citizens (URAIA, 2017: 19).

8.4.3 Active citizenship against endemic corruption in Lviv, Ukraine

In Lviv, a local civil organisation with no formal links with politics known as *Samopomich* – meaning 'self-reliance' or 'self-help' –, was born in 2004 to mobilise the Ukrainian community to requalify the city neighbourhoods, and became a political movement in 2012, starting to promote

responsible active citizenship against the opulent and endemic state corruption (Lozovsky, 2015: 2-3).

After having demonstrated to get concrete improvement of neighbourhoods done, the political party won the election of 2006 and a continuous collaboration with the original NGO started, albeit Andriy Sadovyi, the new mayor and political leader of *Samopomich*, refused to carry near the NGO to avoid polluting the direct connection with the local community and, in so doing, guarantee independent feedbacks by its city hall advisers (2015: 3).

Sadovyi's administration totally renewed the previous lifeless political culture, based on corruption and patronage, with integrity of civil servants and government transparency; got into youth involvement in the local government; sponsored the 'Youth Entrepreneurship Incubator'; promoted tourism by modernising the most culturally-attractive urban areas; increased pedestrian zones and English-language signs around the city; and, as a result, boosted new opportunities for businesses (Lozovsky, 2015: 4-5). Furthermore, Sadovyi took on two consultants to instruct the city government employees in integrity, in a way to hinder some short-circuits within the bureaucratic machinery and, thus, ward corruption off from the Municipality of Lviv (2015: 6).

Exactly like the experience of La Paz, that of Lviv put a huge attention on the principle of governmental integrity, accountability and transparency, which increased the Sadovyi's credibility and public consensus, especially when he published his own income and incited all the city council to follow his example (Lozovsky, 2015: 5).

8.4.4 Bottom-up local governance in Šaľa, Slovakia

The Šaľa public administration's experience, in Slovakia, is another example of how to involve anti-corruption activists according to an approach "bottom-up local governance" (Jacko, 2016: 119). Similar to the case of Lviv, the initiative started with *Lepsia Šaľa*, an NGO driven by professionals with no experience in anti-corruption. Since 2002, it has been aimed to: foster higher transparency in local governance; enable citizens to better control the local government's decision-making process, especially through participative mechanisms; as well as hinder clientelist practices and other inappropriate deployment of public resource endowment (2016: 122).

Supported by a broad political control room constituted by both the city Council majority and opposition – which was the main critical success factor of the bottom-up governance initiative –, the city management adopted a series of anti-corruption measures including: publishing of rules,

official files – e.g., supply contracts and accounting documents –, municipal public servants' contact details, data about the staff's expenditure and other information provided by means of an on-demand system; arranging an e-procurement structure ensuring fair processes (Jacko, 2016: 122-123). Moreover, e-democracy and similar e-government initiatives had the major role in the Šal'a's experience thanks to empowering tools for the benefit of citizens, such as opinion polls, forums for discussion, e-forms and e-petitions (2016: 124).

An interesting feature – probably the most significant one – of the case of Lviv is the refusal of adopting pre-packaged solutions and mechanistic administrative processes adherent to the NPM paradigm in supporting policy-design, which were replaced by the renowned Klitgaard's (1991) work titled '*Controlling Corruption*' (Jacko, 2016: 127). Ultimately, both the good governance initiatives of the anti-corruption agenda of Lviv and the organisation of propaganda events – e.g., information campaigns and open days – led to: the UN's Public Service Award; several institutional endorsements, even from abroad; a more efficient public procurement activity, thanks to a new e-procurement infrastructure and a higher competition; and, most importantly, the positive example to the other Slovakian local governments, which chose to engage in similar projects autonomously (2016: 128).

8.5 Outlining a collaborative anti-corruption strategy for Cerda through a DPG approach

8.5.1 Stakeholder identification and analysis

As it emerged in chapters 5, 6 and 7, the main criticalities faced in the past by Cerda Municipality concerned with the political, managerial and administrative paradigm, characterised by scarce accountability, transparency and non-legitimate personnel discretion. The resulting losses of effectiveness and efficiency in public services delivery have gradually undermined the financial equilibrium of the public Body and the perception of credibility of bureaucracy and politics by citizens, thus reducing their trust in the local government and increasing the general proneness to tax avoidance. Besides, lack of managerial culture and feeling for the institutions have provoked an administrative inertia consisting of the absence of concrete efforts in soliciting tax contributors to restore local revenues.

Through the research findings on the case-study discussed in the chapters mentioned above, a stakeholder analysis can be here outlined. It provides information useful to evaluate the viability of possible policy lines, make easier decision-making, organisational goals, project

implementation, as well as elaborate strategies aimed at steering key-stakeholders (Varvasovszky & Brugha, 2000: 338). The latter are entities who, firstly, have an interest in the issue at hand and, secondly, can either be affected by or affect – actively or passively – decision-making and implementation processes linked to a policy issue (2000: 341) or, in general, to an organisation's goals (Freeman, 1984: 46). In other terms, their influence capability might not necessarily imply that they have legitimate claims in relation to the problem, nor that they *want to exercise this influence*, but it simply means that they *can influence it somehow* (Mitchell et al., 1997: 859).

Accordingly, although referred to the private domain, by suggesting a typology to better identify and analyse the stakes to which managers should focus on, Mitchell et al. (1997) made a distinction between four groups of stakeholders, whose significance is based on the presence of either one or more of three main variables, that is to say: their *power* to influence organisations; the *legitimacy* relationship that they establish with them; and the *urgency* of their claims. Based on that, they classify stakeholders in: *latent*, comprehensive of dormant, discretionary and demanding stakeholders; *expectant*, including those dominant, dangerous and dependent; *definitive*; and, as a residual category, *non-stakeholder* (1997: 872-879)⁴.

According to such a typology, in order to better outline the relevant stakeholders' profiles (Varvasovszky & Brugha, 2000: 341), the stakeholder analysis makes possible to identify the fundamental components of a possible anti-corruption programme. Later, by means of a DPG approach, not only this process allows for a better understanding of what tangible and intangible resources should be considered as strategic for reaching the related project goals, but it also allows to identify the main performance drivers of collaboration to leverage. Thus, taking into account the relevant information about the case under scrutiny, the main programme components may be: *citizens' sensitization and empowerment; politicians' active leadership, expertise and honesty; administrative transparency; skills and accountability of public managers and staff; simplified regulation; participation in policy-making and budgeting of citizens; building trust in government; youth entrepreneurship; mass media involvement.*

⁴ In particular, stakeholders being: dormant own power; discretionary have legitimacy; demanding have urgency. Stakeholders that are: dominant have power and legitimacy; dangerous own power and urgency; dependent have legitimacy and urgency. Finally, definitive stakeholders have all the three characteristics, while non-stakeholder none. Cf. Mitchell, R. K., Agle, B. R., & Wood, D. J. 1997. Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts. *The Academy of Management Review*, 22(4): 853-886., Figure 2, p. 874.

Thanks to the insights deriving from the theoretical and empirical literature on collaborative anti-corruption initiatives at local level and on the basis of the typology of Mitchell et al. (1997), the stakeholders to involve for a possible anti-corruption agenda in Cerda are: *the Mayor*; the *City Council Majority*; the *City Council Opposition*; the *City Board*; the *Heads of Departments* and the *municipal Staff*; the *local Entrepreneurs*; the *Citizens*; the *media Outlets*.

Possible positions in relation to the problem and the contributions to the programme may be expected by considering the criticalities in implementing anti-corruption projects, outlined in the previous section, which reveal to be relevant for the case of Cerda Municipality. Obviously, the perspective of the analysis is from the Mayor, the City Council Majority and the City Board, which are basically expected to lead the design and the implementation of a possible anti-corruption programme and, as such, they are supposed to be supportive, highly motivated, diriment of possible frictions between participant, apolitical, fair and, ultimately, determining in ensuring good performance of the overall initiative.

The City Council Opposition may turn out to be a ‘dominant’ stakeholder, as it may deliberately attack and blame the Majority to distract public resources for covering the expenditures caused by the project realisation, or even to accuse it for a possible failure of such an initiative. By virtue of its power and legitimacy, the influence of this body may further constitute a disincentive for the Mayor to engage in any collaborative anti-corruption effort.

The Heads of Departments and the municipal Staff may, instead, be considered as ‘discretionary’, as they possess a claim/duty of working and, contemporary, guaranteeing the levels of transparency and accountability required by law and community within the administrative system, but they have no significant power, nor urgent claims in relation to the problem at hand. As such, they are expected to be supportive compared to a possible anti-corruption initiative.

Local Enterprises are considerable as more ‘dangerous’ than ‘dependent’, since they have significant power and urgency for influencing decisions in collaborative settings, especially in terms of transparency, fairness and competitiveness in the Municipality’s public procurement activities. Diversely, citizens are considered the ‘definitive’ stakeholder, since they have the power to oblige political power to pursue and realise credible policies, based on community well-being and equality. Together with enterprises, the citizens’ role in a possible anti-corruption intervention within collaborative settings is uncertain, since it mostly depends on the level of their sensitisation

and willingness to refuse and actively fight illicit practices, which may differ from a sub-category to another – e.g., young people might be more motivated and sensitive than the elderly.

Finally, media Outlets are considered as ‘dormant’ stakeholder by virtue of their power to strongly influence a collaborative effort by shaping public opinion, without any legitimacy or urgency in relation to the considered wicked issue. Therefore, they are expected to be supportive.

Although this is just a first approximation analysis, it can lay the foundations for a future, more detailed stakeholder study finalised to develop a collaboration-based anti-corruption strategy. Enlargement of the scope through the inclusion of further categories of stakeholders, who will deserve particular attention at the moment in which the deepened analysis will be carried out, and differences in possible positions assumed by all the participants are expected.

Table 8.1 exhibits the results of this short analysis.

Table 8.1. Stakeholders’ profiles linked to possible anti-corruption policies for Cerda Municipality.

Stakeholder	Position that might be taken	Influence/power exercisable and likely impact on the problem	Legitimacy in relation to the problem	Impact of the problem on the actor (urgency)	Stakeholder type
City Council Opposition	Opposed	Medium-High	High	Medium	Dominant
Heads of Departments and Municipal Staff	Supportive	Low	Medium	Low	Discretionary
Local Entrepreneurs	Uncertain	Medium	Medium-Low	Medium	Dangerous
Citizens	Uncertain	High	High	High	Definitive
Media Outlets	Supportive	High	Low	Low	Dormant

Basing on this picture, it follows DPG perspective representing a collaborative governance strategy which may help to foster broad interest and participation by each of the considered stakeholders.

8.5.2 Framing a possible anti-corruption policy through a DPG chart

The local experiences showed in section 8.4 own a common virtuous denominator being constituted by the frontline position of wise “political entrepreneurs” who, creating a supportive anti-corruption systems, leveraged on the promotion of integrity values and the reinforcement of public servants and community’s civic morality (Vannucci, 2019: 115).

Anti-corruption projects always need to be totally embedded into a formal political agenda, in order to purposefully translate any initial – either top-down or bottom-up – enthusiasm into a

substantial change in the political and managerial mindsets being capable to avoid vacuous and implausible interventions. As such, given the overt success of the outlined local experiences and the similarities in terms of typologies of corruption crimes that the reformers dealt with, a possible collaboration-based policy is here suggested by also taking into consideration the certified past events occurred in Cerda.

The case at hand presented a set of enabling informal rules that Vannucci (2019: 110) outlined as '*macular corruption*'. According to this paradigm, agents perceive law and penalties as limitations and search for opportunities for undue private advantages in vulnerabilities of specific decision-making processes, because of the fact that they own modest social and regulatory barriers, thus gradually broadening their blurred network with complaisant individuals and, as a result, reinforcing the shield against external controls and sanctions, as well as consolidating inappropriate practices in those particular public activities (113).

Based on the successful initiatives discussed above, the dynamic hypotheses underlying a possible collaborative anti-corruption agenda are showed in the CLD – Figure 8.1 – and in the DPG chart – Figure 8.2 –, with a particular emphasis on the resources shared by the identified stakeholders and the essential performance drivers, from the Municipality's *outside-in* perspective. The feedback loops are highlighted in Table 8.2.

The local community's sensitisation on corruption constitutes a first crucial element on which leveraging. Sensitisation is linked to the concept of 'citizenship', which goes beyond strictly binding legal norms and implies that every part of a given societal context, being united by common objectives, value basis and cultural belief, shares a widespread feeling of community (Bianchi, 2021: 335), thus boosting civic engagement (Cooper & Gulick, 1984; Cooper, Bryer, & Meek, 2006) and actual willingness to be involved in dealing with tangled socio-economic issues.

It is reasonable to affirm that the less the community is sensitised and reduce its control over the public officials' action, the broader the potential range of local clientelist network will be, and vice versa. Theoretically, this network could cover all the possible relationships favouring private interests at the expense of the public one; so that, if citizens and local businesses accept corruption because of low contextual moral barriers, no formal/informal control occurs and favouritism, for instance, in public hiring and/or contracting can spread, and vice versa.

Therefore, the high or low pathological political proximity with the community (Minkova, 2018: 6-7) may respectively cause or prevent citizenry overlooks the more general collective

interests and problems. In turn, the following degradation or enhancement of the related strategic resource ‘Watchdog Citizens’ may result in a narrower or broader clientelist network, which is controlled by the intermediate result ‘*Individuals sensitised ratio*’, measuring the rejection feeling of favouritism practices in public activities – Loop R1. In other terms, opportunities for hidden exchanges feed the general connivance with clientelist practices, such that there is no interest to generate a ‘shock’ that moves away from a convenient *status quo*; and vice versa.

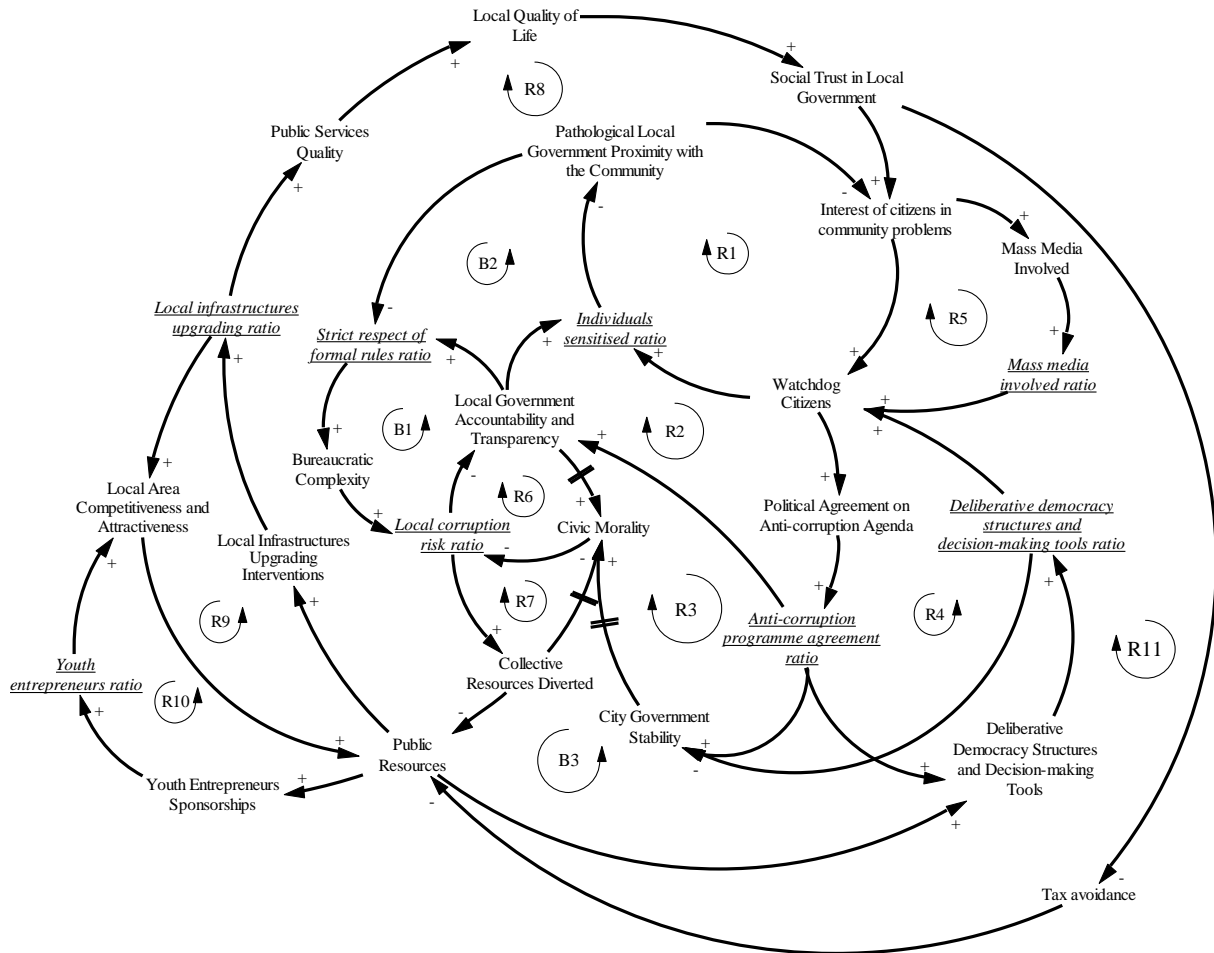







Figure 8.1. The CLD of the collaboration-based anti-corruption agenda for Cerda Municipality. Source: Author’s elaboration.

Community’s willingness to monitor the local public action may show up through collateral active citizenship mechanisms aimed at demanding civil servants for the respect of good practices, internal monitoring and adequate treatment of possible misconducts. Sensitised citizens










may also solicitate an enduring, robust and clear agreement between all the political parties on each point of the anti-corruption programme, so as to corroborate their actual credibility.

Measured by the intermediate result ‘*Anti-corruption programme agreement ratio*’, the degree of political consensus on the anti-corruption agenda proposed by the City Council Majority positively affects the public officials’ accountability and transparency, thus impacting on the ‘*Individuals sensitised ratio*’ positively – Loop R2 –, as well as the ‘*City Government Stability*’; and vice versa. The latter positively impacts on ‘*Civic Morality*’ (Letki, 2006: 231), which negatively influences the performance driver ‘*Local corruption risk ratio*’ by impacting on ‘*Structural Corruption Conditions*’, hence improving integrity within the local Authority, mortifying clientelist circuits stemming from ‘*pathological*’ political proximity with citizens and, finally, increasing the sensitised part of the community – Loop R3 –; and vice versa.

Table 8.2. Main feedback loops of the possible collaboration-based anti-corruption initiative in the Cerda’s local area.

Causal loop	Variables involved	Explanation of the loop
	Watchdog Citizens→+ Individuals sensitised ratio→- Pathological Local Government Proximity with the Community→- Interest of citizens in community problems→+	Citizens’ sensitisation negatively affects clientelist networks, reinvigorating the public interest in local socio-economic issues; and vice versa.
	Watchdog Citizens→+ Political Agreement on Anti-corruption Agenda →+ Anti-corruption programme agreement ratio→+ Local Government Accountability and Transparency→+ Individuals sensitised ratio→- Pathological Local Government Proximity with the Community→- Interest of citizens in community problems→+	Sensitised citizens solicitate political agreement on anti-corruption programme, thus fostering the local Authority’s accountability and transparency, counteracting clientelist networks, strengthening the public interest on community issues and citizens’ sensitisation; and vice versa.
	Watchdog Citizens→+ Political Agreement on Anti-corruption Agenda →+ Anti-corruption programme agreement ratio→+ City Government Stability→+ Civic Morality→- Structural Corruption Conditions→+ Local corruption risk ratio→- Local Government Accountability and Transparency→+ Individuals sensitised ratio→- Pathological Local Government Proximity with the Community→- Interest of citizens in community problems→+	Sensitised citizens solicitate political agreement on anti-corruption programme, thus boosting the city Government’s stability and local civic morality, as well as reducing local corruption risk, triggering the local Authority’s accountability and transparency, counteracting clientelist networks, strengthening the public interest on community problems and citizens’ sensitisation; and vice versa.
	Watchdog Citizens→+ Political Agreement on Anti-corruption Agenda→+ Anti-corruption programme agreement ratio→+ Deliberative Democracy Structure and Decision-making Tools→+ Deliberative democracy structures and decision-making tools ratio→+	Sensitised citizens solicitate political agreement on anti-corruption programme, thus demanding for more effective deliberative democracy structures and decision-making tools and sustaining watchdogging; and vice versa.
	Watchdog Citizens→+ Individuals sensitised ratio→- Pathological Local Government Proximity with the Community→- Interest of citizens in community problems→+ Mass Media Involved→+ Mass media involved ratio→+	Citizens’ sensitisation negatively affects clientelist networks, reinvigorating public interest in local socio-economic issues and soliciting media outlets’ involvement; and vice versa.

Experimenting with a Collaborative Governance Strategy to Curb Corruption in Local Areas

	<p>Civic Morality→- Local corruption risk ratio→- Local Government Accountability and Transparency→+</p>	<p>Local civic morality reinforces public Authority's accountability and transparency, reinvigorating citizens' perception of transparent and fair administration; and vice versa.</p>
	<p>Local Government Accountability and Transparency→+ Strict respect of formal rules ratio→+ Bureaucratic Complexity→+ Local corruption risk ratio→-</p>	<p>Accountable civil servants consistently work with law and protocols, but an excess of compliance with formal rules exasperates bureaucratic complexity, thus increasing risk of corruption at local level and reducing the local Authority's accountability and transparency; and vice versa.</p>
	<p>Pathological Local Government Proximity with the Community→- Strict respect of formal rules ratio→+ Bureaucratic Complexity→+ Local corruption risk ratio→- Local Government Accountability and Transparency→+ Individuals sensitised ratio→-</p>	<p>Clientelist networks reduce civil servants' compliance with formal rules which, in turn, exasperates bureaucratic complexity, increasing local risk of corruption, reducing the local Authority's integrity that fosters individuals' sensitisation and reduces pathological proximity of the local Government with the community; and vice versa.</p>
	<p>Civic Morality→- Local corruption risk ratio→+ Collective Resource Diverted→-</p>	<p>Civic morality negatively affects local corruption risk which, in turn, positively affects dispersion of collective resources, which, finally, negatively influences civic morality as index of local government inefficiency.</p>
	<p>Public Resources→+Deliberative Democracy Structures and Decision-making Tools→+ Deliberative democracy structures and decision-making tools ratio→- Government Stability→+ Civic Morality→- Local corruption risk ratio→+ Collective Resources Diverted→-</p>	<p>Investments in deliberative democracy structures and decision-making tools negatively affects the City Government's stability, which positively influences civic morality, which negatively impacts on local corruption risk, which, finally, positively affects dispersion of collective resources.</p>
	<p>Civic Morality→- Local corruption risk ratio→+ Collective Resources Diverted→- Public Resources→+ Local Infrastructures Upgrading Interventions→+ Local infrastructures upgrading ratio→+ Public Services Quality→+ Local Quality of Life→+ Social Trust in Local Government→+ Interest of citizens in community problems→+ Watchdog Citizens→+ Political Agreement on Anti-corruption Agenda→+ Anti-corruption programme agreement ratio→+ City Government Stability→+</p>	<p>Civic morality reduces risk of corruption and the consequential dispersion of public resources that, in turn, foster investments in the modernisation of the local area, thus enhancing public services, quality of life, trust in the local Government and increasing citizens' interest in the local socio-economic issues, who, then, demand for a better political anti-corruption programme agreement which, finally, increases the City Government's stability and the community's civic morality; and vice versa.</p>
	<p>Public Resources→+ Local Infrastructures Upgrading Interventions→+ Local infrastructures upgrading ratio→+ Local Area Competitiveness and Attractiveness→+</p>	<p>Using collective resources to improve competitiveness and attractiveness of the local area through urban modernisation increases the local GDP and, as a result, incomes stemming from the new taxable wealth; and vice versa.</p>
	<p>Public Resources→+ Youth Entrepreneurs Sponsorships→+ Youth entrepreneurs ratio→+ Local Area Competitiveness and Attractiveness→+</p>	<p>Using collective resources to improve youth entrepreneurship increases the local GDP, thanks to higher degrees of competitiveness and attractiveness of the local area, and, as a result, incomes stemming from the new taxable wealth; and vice versa.</p>
	<p>Public Resources→+ Local Infrastructures Upgrading Interventions→+ Local infrastructures upgrading ratio→+ Public Services Quality→+ Local Quality of Life→+ Social Trust in Local Government→- Tax avoidance→-</p>	<p>Investments in urban modernisation of the local area increase public service quality, thus improving quality of life, social trust in the local Government which, finally, counteracts tax avoidance and increase public resources; and vice versa.</p>

Experimenting with a Collaborative Governance Strategy to Curb Corruption in Local Areas

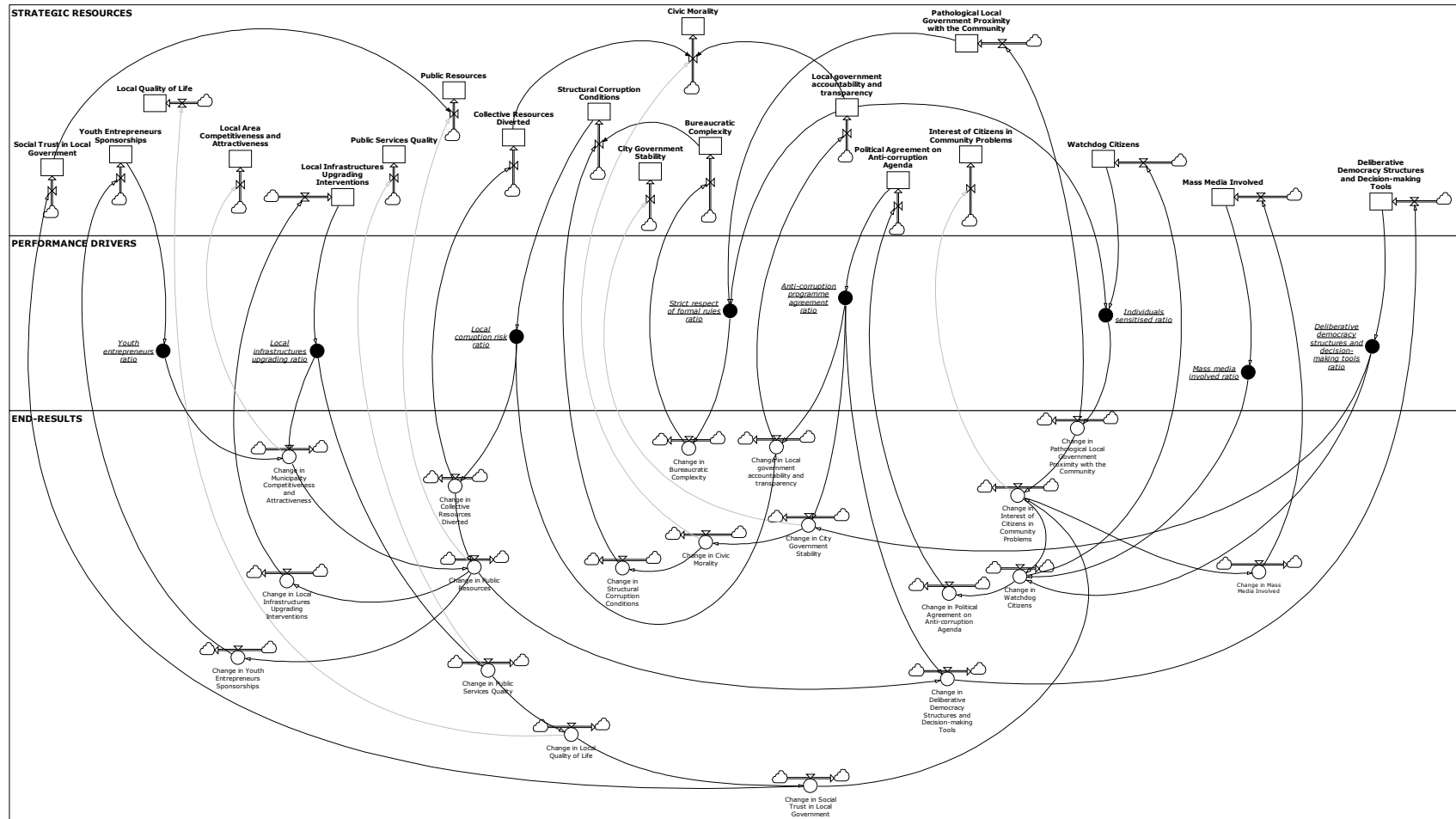


Figure 8.2. A DPG chart of the collaboration-based anti-corruption agenda for Cerda Municipality. Source: Author's elaboration.

In order to support community sensitisation and active intervention, in the spirit of collaborative governance, formal deliberative democratic structures and decision-making tools – such as discussion forums, opinion polls and e-petitions (Jacko, 2016: 124) – should be sketched out, so as to improve citizen participation and responsibility, community consciousness and control over the local ruling class. Accordingly, the performance driver ‘*Deliberative democracy structures and decision-making tools ratio*’ – Loop R4 – measures the related critical success programme component, representing a common lever of any collaborative governance project.

External support of mass media may help to empower citizens through the improvement of, on the one hand, their awareness about the general corruption issue and, on the other hand, their monitoring activity on the local government’s system. Media outlets’ involvement may originate spontaneously or be promoted by citizens, firms or even the same local politics, often depending on the way through which a collaborative effort arises.

As mentioned above, the empirical research found that media outlets’ inclusion proved to be decisive in conducting anti-corruption projects successfully (Mungiu-Pippidi, 2015: 173), probably thanks to their capability to shape people’s perception of corruption (Lambsdorff, 2001a) and ensure project disclosure. It follows that controlling the intermediate result ‘*Mass media involved ratio*’ opportunely may mean allowing local journals, radio, televisions and Internet platforms to boost credibility of the initiative, thus reinforcing watchdogging mechanisms, the citizens’ interest on the local socio-economic issues and, finally, media outlets’ involvement itself – Loop R5.

As argued in Chapter 6, civic morality represents a significant variable to repress and prevent corrupt behaviours within a given community, and this means to positively impact on the local civil servants’ accountability and transparency, hence improving civic morality itself – Loop R6 –; and vice versa. Interestingly, a higher public officials’ integrity also means a stricter focus on the set of legal rules and protocols. Given the Italian hyper-regulated public context (Fantini & Simonetti, 2017: 28), the degree of compliance required to civil servants, here measured by the performance driver ‘*Strict respect of formal rules ratio*’, may exasperate ‘*Bureaucratic Complexity*’ and, as a result, create opportunities for corruption (Ades & Di Tella, 1997; Lambsdorff, 2006; Minkova, 2018); and vice versa, where law is less constraining – Loop B1.

However, fiduciary practices may paradoxically counteract this side effect – Loop B2. As it is argued in Chapter 6, bypassing formal rules and procedures may even be justified by

the presence of informal governance mechanisms that allow public organisations to overcome unsustainable legal and bureaucratic burdens (Coviello et al., 2018: 2), albeit an adequate level of ‘Civic Morality’ is required to compensate a possible insufficient citizen watchdogging due to weak loops R1, R4 and R5; and vice versa.

Hindering resources diversion caused by local corruption risk improves the community’s civic morality, reducing the structural corruption itself – Loop R7 –; and vice versa. This may increase the general availability of collective resources, being fundamental to support deliberative democracy tools finalised to anti-corruption collaboration. Nevertheless, an unintended effect may arise from an excessive emphasis on deliberative democracy: it may, in fact, produce a balancing effect on the normal functioning of the local political machinery, by undermining its stability over time – Loop B3.

Corruption drains money, but whatever project aimed at curbing it needs it as well. At this regard, ‘Public Resources’ released by virtue of a less corrupt local system may positively feedback to ‘Public Service Quality’, ‘Local Quality of Life’ and, therefore, to ‘Social Trust in Local Government’, driven by new investments in infrastructural modernisation measured by the intermediate result ‘*Local infrastructures upgrading ratio*’, so as to improve the citizens’ care of local issues, the Government’s stability, ‘Civic Morality’ and reduce the local corruption risk – Loop R8 –; and vice versa.

Moreover, to sustain public investments aimed at improving local infrastructures may enhance the ‘Local Area Competitiveness and Attractiveness’, compared to the nearby localities, so as to increase the local gross domestic product (GDP) and the ‘Public Resources’ that stem from new taxable wealth – Loop R9 –; and vice versa. Accordingly, given the Cerda’s enormous economic makings and potential, significant public efforts may be concerned with revamping tourism through the modernisation of the urban fabric. Furthermore, inspired by the strategy adopted in Lviv (Lozovsky, 2015: 4-5), reinvigorating the City’s youth entrepreneurial network through local government sponsorships should also be a crucial programme component, measured by the performance driver ‘*Youth entrepreneurs ratio*’ and aimed to sustain the local area’s competitiveness, attractiveness and taxable wealth – Loop R10.

Finally, the Municipality’s fight against tax avoidance may rely on coercive measures to increase tax collection, even though it may result costly for the local government in terms of public consensus, especially if recurring to the tool of enforced collection⁵. Building ‘Social

⁵ In Italy, local governments can collect taxes in two ways: through spontaneous payments by tax-payers or by enforced collection. Tax regulation is provided by the d.P.R. 29 September 1973, no. 602, published in the Italian

Trust in Local Government' may counteract tax avoidance – Loop R11 –, reduce the recourse to such tools and restore the local Authority's financial equilibrium, thus making it possible to reinvest the released public resources in the local area and trigger a sustainable development based on a radical and permanent cultural change.

This simplistic feedback structure is not immune by flaws, because of dynamic hypotheses that were not possible to test on the field. However, they result credible as long as accurately rest on the interviews – see Chapter 5 and Appendix A – and the related research findings showed in the previous chapters. Based on that, also considering what could 'go wrong' in leveraging on the specific performance drivers identified above, in the context of a possible collaborative governance endeavour to elicit the general anti-corruption feeling in Cerda, seems to be necessary.

8.5.3 Implementation feasibility and concerns

In addition to the failures factors of collaboration highlighted in paragraph 8.3.2, some additional problems, being specifically related to the case-study – even if, in general, recognisable in most of the Italian municipalities –, may arise in implementing the suggested anti-corruption project.

Firstly, as far as *factors conflicting with collaboration* are concerned, watchdogging seems to be arduous in Cerda, given the long-standing citizens' inertia in complaining with the local Authority's poor performance, steered by a visible detachment from the local problems (Public Official #4, 2019). Furthermore, the effect of a possible toxic political proximity might threaten any effort in restoring a proper community's interest for the local socio-economic life, fomenting lack of awareness about the detrimental long-run effects of inappropriate practices, people's poor systemic vision of the problem and their general carelessness.

As Vannucci (2019: 114) pointed out, the inclination to assume corrupt behaviours is not congenital, but derives from a decision-making process in which institutional aspects, social and cultural relationships, values and rules shape the agents' personal and collective choices. Provided that there exist a trade-off between the agents' convenience and mindset and institutional opportunities (115), the role of politics in triggering and sustaining the cultural change that shapes individuals' choices is as much crucial as community sensitisation itself.

Official Journal no. 268 of 16-10-1973 and the decree-law 22 October 2016, no. 193, published in the Italian Official Journal no. 282 of 02-12-2016.

Therefore – and secondly –, as in the case of Šal'a, the best expectation of a political intervention is that the Mayor and the City Board could enjoy both the City Council Majority's and Opposition's support, in the general recognition that a strong and stable political consensus and administrative cohesion are purposeful to contain corruption risks, as well as to renew the common sense of the institutions and responsibility towards the *res publica*. However, although, in the perspective of a joint action, a government majority supported by all parties may appear desirable, if there was not room for assembling a broad alliance within the municipal Council – just like in the case of La Paz – the Mayor, the City Board and the Council Majority could always sustain an anti-corruption programme alone, so that an unconditional non-tolerance approach may be the only chance to reach an appreciable success of the project.

Based on what above, a broad direction room might be not feasible because of frictions characterising the political life of small municipalities, such that the success of an anti-corruption agenda may only rely on the political stability of the majority, it being understood that ambitious – sometimes interest-conflicting – policies hardly find sure consensus, even inside the government majority itself. As such, the effort of some valiant champions for a successful collaboration may be mortified because of rooted political competitive – and not collaborative – dynamics, thus provoking insufficient community's consensus on the project and poor external support from key-stakeholders.

On the other hand, *factors enabling collaboration* actually exist. Firstly, the normal functioning of the local political machinery may find a friction element in the deliberative democracy and decision-making tools finalised to increase citizen participation and oversight over the public action. Nevertheless, despite this tractable inconvenient, consistent and broadly-agreed decisions and action paths on anti-corruption are unavoidable to overturn the community's mindset towards a corruption-refusing paradigm. As such, media may play a strategic role as catalyst factor of this process.

Secondly, growing levels of innovation and entrepreneurship were discovered to be associated with a high corruption control, provided that illicit practices for private benefit pollute trade and undermine both productivity and innovative investments (Anokhin & Schulze, 2009). Moreover, as the OECD (2020) recognised, young people have both the power and the responsibility to make a clean break with corruption. Accordingly, in Cerda, innovative entrepreneurial initiatives from the youth may prove to be decisive in naturally triggering the needed cultural change and snatching the local area from its old mindset.

Finally, restoring public resources and diminishing the endemic tax avoidance may be possible as soon as the number of sensitised individuals is kept at the level at which the range of pathological networks is inoffensive for the public trust and wealth. This can be done by means of the programme components identified above, but with particular emphasis on: *availability of deliberative democracy tools; media outlets' involvement; government stability; and youth entrepreneurship.*

8.6 Academia as a 'backbone organisation' to enable anti-corruption collaborative governance

Anti-corruption collaborative governance arises for addressing more evident socio-political crises of legitimacy concerning government accountability, "which is perceived as having failed to protect deeply rooted citizenship rights at the social, political and civic levels" (della Porta, 2017: 675). As such, the endeavour of political leaders and managers to "inspire, mobilize, and sustain their own agencies" (Crosby & Bryson, 2010: 211) may be harder than in other collaborative arrangements, especially if they are at the origin of the problem to cope with.

Collaborative strategies are expected to build citizens' trust in governments, which mostly depends on credibility of policies and governments' capability to implement them effectively (Kaufmann et al., 2010). Therefore, not only legitimacy becomes a critical success-factor in terms of *who* promotes and guides relevant projects, but also in terms of *modes* through which these are put in place. For this reason, integrative leadership in cross-sector collaborative settings (Crosby & Bryson, 2010) may improve levels of legitimacy of public sector and prevent failures of anti-corruption efforts thanks to a shared and opportunely-distributed guidance of collaboration.

At this regard, 'backbone organisations' try to enhance social outcomes of collaboration initiatives through the support and facilitation of the underlined interactive and iterative dynamics between cross-sector groups of partners, in order to make the desired impacts possible by clarifying visions and strategies, providing shared measurement practices, boosting public will, proposing policy and managing collaboration funds (Turner, Merchant, Kania, & Martin, 2012). In other terms, 'backbone organisations' work to ensure cross-sectoral players' coherence with joined goals and compliance with common rules of interaction, by sending opportune signals stemming from the guides of collaborative initiatives (Kania & Kramer, 2011).

In the light of the influence that it can exercise on both politics and socio-economic structures, *academia* has gained a growing significance in boosting anti-corruption collective strategies, by providing good leadership and effectively triggering change (Di Palma, 2014). As such, it probably represents the most suitable and valuable ‘*backbone organisation*’ in supporting collaborative efforts against public corruption.

In principle, there are a plenty of good reasons why collaborative governance initiatives to curb corruption at local level may take advantage from involving scholars. First of all, academia can guarantee a better understanding of the nature of corruption, its origins, its management and governance implications. It can provide participants with high-level teaching and research, policy recommendations and strategic measures to fight it effectively and efficiently (Di Palma, 2014). It follows that, especially if coming from heterogenous fields of study enabling useful knowledge contamination, academic engagement may be supportive in moderating local political dynamics and promoting greater willingness and broader agreement regarding if and how to set a collective action. Moreover, academic action may result in a better control and citizen participation, by designing tailored e-government tools and structures for deliberative democracy.

Secondly, academia can naturally exercise a function of *information and knowledge dissemination* and make public awareness campaigns more effective, by writing on corruption problems and attracting public attention – more or less – freely and without suffering harmful political influences or constraints (Di Palma, 2014). Actually, it could orient collaborative processes towards a greater transparency and knowledge sharing, not only to increase the chances of a successful collaboration, but also to improve the trust-building endeavour between participants. This may contribute to further improve the degree of sensitisation of civil servants, citizens, entrepreneurs and, as a result, reduce opportunities for inappropriate practices.

Thirdly, scholars may constitute reliable consultants for administrative procedural simplification, reduce uncertainty of bureaucratic rules and clarifying the content of in-force regulation. This is very important when several law sources have to be taken into consideration at the same time in administrative procedures and rule modifications occur at a faster and faster rate over time, as it happens in Italy.

Finally, academia may boost innovation, inclusiveness and entrepreneurship by inserting and disseminating knowledge through more fluid transfer processes, driven by the high-specialised structures, networks and human capital of the reference universities and research institutes. The highest-level education institutes can better understand societal needs

and explain reasons and ways through which communities are likely to be threaten. That, thanks to the theoretical knowledge that they develop and its concrete application through complex and in-depth analytical tools. This is meant to support sustainable development of local areas and enhance the level of preparedness of key-actors in facing unexpected and uncontrollable environmental – i.e., economic, social and political – shocks, thus favouring the cultural change of society.

Accordingly, on the one hand, scholars may allow for creative and productive utilisation of knowledge, revealing themselves as interfacing platforms between enterprises and community to create new opportunities for skilled job, further spread transparent practices in workplaces (Di Palma, 2014) and support youth entrepreneurship by applying research and fostering innovation. On the other hand, by placing themselves side by side to local governments in modernisation of local areas, scholars may provide their expertise for ameliorating public performance and triggering municipal attractiveness and external competition.

Resuming, academia's contribution may find several entry points in a collaborative action against corruption risk, thus assuming a critical role in: facilitating consensus-oriented decision-making; fostering possible synergies among participants; settling existent disagreements, by virtue of its independency and legitimation; creating new opportunities for sustainable development of local areas. In other terms, academia may turn out to be an effective *catalyst* of collective actions and, as such, the most suitable candidate for becoming the *champion* of any anti-corruption collaboration project.

Academia's intervention can go beyond anti-corruption collaborative projects and constitute the bridge for the natural prosecution of collaborative arrangements for other initiatives, hence promoting further synergies between key-stakeholders.

8.7 Conclusions

Coherently with the collective action theory, collaborative governance for anti-corruption initiatives may remedy to the principal-agent theory's gap related to the undefined principal's willingness to actually react to the agent's abuse of the entrusted power due to private benefits.

Empirical cases from all parts of the world were taken into consideration in the attempt to shape a hypothetical preventive collaboration-based anti-corruption project for Cerda Municipality, which should be considered by any local public entity, regardless of the actual corruption levels. Citizens' sensitisation, broad political agreement, reduction of strict focus

on regulation, youth entrepreneurship, urban modernization and media involvement may, in different manners, shape the socio-economic and cultural change in the local community.

The mayor, his/her political majority and the city board play a frontline role in putting in place an effective stakeholder engagement, but council opposition, environmental complexity and systemic uncertainty may undermine any possible endeavour in such a direction. In addition, they may even discourage the project leader to pursue ambitious goals.

Thanks to its endowment of strategic tangible and intangible resources, academia can exploit its proximity with citizens and businesses to implement collaboration-based anti-corruption agendas by: providing high-level teaching and research; clarifying visions and strategies; enhancing citizens' participation; disseminating relevant information and knowledge; supporting trust-building between participants; creating job opportunities; fostering entrepreneurial innovation and attractiveness of local areas; and triggering an effective and long-lasting cultural change of the interested communities.

CONCLUSIVE DISCUSSION, LIMITS AND FUTURE RESEARCH

Public corruption is a ‘wicked’ problem with ancient roots. It will always threaten society due to its capability to continuously adapt itself to the administrative and environmental contexts where it occurs and mould them in turn. Corrupter and corrupt individuals will never end to find out new ways and strategies to exploit entrusted public power for their desire and benefit at the expenses of public performance. This awareness should stimulate scholars in public management to better deepen specific configurations of this phenomenon and counteracting its outcomes by perfecting supportive techniques and methodologies.

The study of corruption requires an intra-organisational focus of public management to provide realistic chances to prevent, detect and tackle it. However, especially at local government level, a broader *inside-out* system perspective may allow policy- and decision-makers to design and implement feasible anti-corruption strategies effectively and efficiently. As such, good public governance represents the main lever for reducing resource diversion and dispersion, boosting sustainable development of public authorities and enhancing public outcomes on living standards of citizens. Appropriate governance structures, indeed, create the needed conditions for sustaining and improving financial equilibria, enabling poorest people to access essential public services and fighting generational inequality.

Laws, protocols, formal procedures and rules are not enough to promote change in culturally-prone public contexts characterised by poor governance settings. Although perceptions, experiences, legal and economic data and information are often the only available sources, they may fail to capture environment-dependent factors and dynamics that may corroborate, or at least, signal the actual existence of some kind of past, current or future misconducts impacting on public performance, especially if used under stand-alone research focuses.

In addition, the fight against all forms of corruption at once is just rhetoric, and every decisive endeavour of reaction needs to outline clear boundaries to develop viable and tailored preventive and repressive strategies.

Procurement is an essential activity for fulfilling public action and, because of its features, it has always been particularly subject to corruption at any level and degree. Scholars and practitioners have commonly adopted ‘red flags’ as corruption signals along each phase of

the procurement process. This methodological choice may be undermined by some shortcomings related to, for instance, the definition of their scope and reliability. KPIs adjusted by corruption risk components may reduce such flaws and the uncertainty in ascribing quality and efficiency gaps in public performance to either ‘active’ or ‘passive’ resource wastes, especially if used in the analysis of dynamic co-evolution of economic, socio-cultural and political factors linked to clandestine malfeasances for personal interest.

Accordingly, a DPM point of view may help politicians and public managers to gain a clearer picture of organisational corruption risks and put emphasis on critical sets of performance drivers and end-results including multiple layers of community outcomes. In particular, intermediate results constitute short-term signals of possible unethical behaviours at system level and, therefore, may contribute to guide policy- and decision-makers in supporting sustainable development of local governments through professional and ethical learning, as well as virtuous community trust-building processes.

Based on a representative case-study of an Italian small municipality disbanded twice for mafia-like infiltrations, the link between pathological management routines and financial distress was confirmed by means of a content analysis of face-to-face, unstructured convergent interviews with five Public Officials.

Later, an outcome-based DPM approach allowed for framing the interdependencies thus detected between tangible and intangible resources, being critical to ward off possible risks of wrongdoings, and end-results, under an *inside-out* perspective. Focusing on the main performance drivers, the relationships between past corruption-related events in public procurement and current performance of the local Government under scrutiny were, therefore, explored. Notably, framing risk performance indicators within a DPM chart made possible to: isolate heterogeneous causes of corruption in procurement; enhance the explicative capability of red-flags; identify strategic resources to deploy for controlling corruption risks at organisational level; keep track of the effects of uncontrollable environmental shocks and possible cultural distortions undermining procurement regularity. Moreover, the combined use of DPM and SD modelling showed how to foster ‘Civic Morality’ at the aim to reduce resource dispersion and boost cultural change in a logic of prevention.

Another issue emerged from the interviews with the Public Officials, whose analysis allowed to better single ‘passive’ resource waste out from ‘active’ one. The relationship between ‘spoils system’ practices for assigning top public offices and performance of the local Body over time disclosed, to some extent, political patronage aimed at gaining public consensus and steer the bureaucratic apparatus of the Municipality. Thus, by means of the

explanatory power of DPM, it was possible to probe the influence over time of ‘passive’ waste in HR, stemming from legal opportunities, and ‘active’ waste in procurement.

Investments in ICTs and personnel’s training finalised to improve knowledge and innovation management, and human capital expertise, respectively; abolition of ‘spoils system’ mechanisms; unblock of public turnover; elicitation of long-sighted political mindset and institutional pride of bureaucrats to stimulate feeling for the institutions; were suggested and tested in a secure virtual environment as possible anti-corruption policies.

Overall, political willingness and cultural change represent the *condictio sine qua non* of any purposeful anti-corruption strategy. As such, a political agenda based on collaborative governance settings may be a wise and credible strategy for preventing eventual possible germs of corrupt behaviour within a reference local area, by engaging all political forces at the forefront to encourage relevant stakeholders to pursue such an ambitious goal.

Adopting an *outside-in* perspective of performance, scholars and practitioners may find the DPG approach particularly suitable to support politicians and public managers in identifying interconnections and mechanisms underlying possible programme components and frame critical success factors of any collaboration-based agenda. Such a perspective allows for outlining anti-corruption strategies that involve relevant local stakeholders through community collaboration settings and highlights synergies and interdependencies among participants in terms of tangible and intangible resources constituting critical levers to hinder systemic risk of corruption.

Given the multiple socio-political factors that may enable or impede such an endeavour, and provided that the academia’s ultimate purpose is to put its knowledge, expertise, connections with the worldwide scientific network, proximity with every stratum of society and potential freedom from any external conditioning at the service of communities, contributions of researchers and practitioners is probably the easiest choice for local governments to facilitate collaborative governance interventions and trigger effective and long-lasting cultural changes.

The present research is not exempt from limits.

Firstly, as far as the representative case-study is concerned, the clandestineness of corruption phenomenon and the ambiguity of its effects did not allow for verifying whether other events different from those brought to the public scrutiny contributed to exacerbate the Institution's debt exposure.

Secondly, the impossibility to access to the municipal archive certainly had an impact on the value of this research work, which nevertheless benefited from the availability of the Civil Servants who voluntarily submitted to the interviews.

Under a different perspective, this possible research constraint constitutes a strength point instead. More precisely, this research is about a single representative case-study, but to interview public officials who were all in charge in the same municipality when the certified illicit episodes occurred represents the most significant original and valuable aspect of the overall research project. Indeed, a few individuals who are in that position would usually lend themselves to discuss about past events of such a sensitivity, and this undoubtedly improves the value of this research work.

Thirdly, given the sensitivity of the topic, it is not excluded that the interview respondents may have expressed partial ideas, albeit they were guaranteed the utmost confidentiality and transparency by giving them an information note on the content covered here well in advance – see Appendix A.

Regarding the SD diagrams developed here, it is opportune to highlight that it is never possible to totally validate any mental or formal model, as it is a bounded and oversimplified picture of the specific reality under analysis, and only detailed assertions stemmed from closed logical-system postulates can be validated (Sterman, 2000: 846). As such, no model is correct actually (Sterman, 2002).

In addition, in relation to the model of Chapter 6, one should bear in mind that, despite the use of sophisticated measurement and modelling techniques, corruption remains a clandestine and complex phenomenon. As such, leveraging public servants' accountability, government stability and organisational efficiency to boost civic morality, thus reducing the overall systemic corruption risk, does not guarantee mathematical precision, but gives to key-actors a better awareness of what possible governance recalibrations are needed to trigger cultural change both inside and outside the boundaries of the reference public entities.

Similar considerations may be moved for the model discussed in Chapter 7, provided that suppressing 'spoils system' may not totally avert that inadequate people cover public charges implying great responsibilities, nor that unblocking public turnover may be free from influences of political favouritism in public hiring or that HR training may completely ensuring high level of integrity. Policy suggestions always need a deepened and detailed formulation on field, quite often depending on legal and bureaucratic factors being linked to state regulation and relationships, which fall outside the aims of the present work.

Another limitation is about the difficulty to use a large empirical base for outlining more reliable points of strength and weakness of a collaborative anti-corruption agenda, and projecting the Municipality in likely scenarios following the implementation of the hypothetical preventive policy illustrated here. In spite of the choice to take successful anti-corruption experiences of local contexts to design a possible collaboration-based anti-corruption initiative, the features of corruption mentioned here may, in any case, compromise any effort since its beginning, because of their inclination to push whole-of-government initiatives toward the ‘failure traps’ highlighted in Chapter 8.

There is not the presumption to propose methodological ‘panaceas’, but just to suggest two different approaches that may give an insightful contribution to the current research, being aware that to cope with a ‘wicked problem’ primarily means to find neither obvious nor ultimate solutions, but just attempting to hinder its negative outcomes on communities.

This kind of research should be repeated on more areas with similar characteristics, even with a bigger number of local populations, so as to identify reliable patterns corroborating the links between mismanagement due to inappropriate behaviour and financial distress of local governments identified here.

Future research should also explore the underlying sub-processes more in detail, in order to better operationalise the DPM systems here proposed and enhance the effort in preventing possible wrongdoings in both procurement and HRM at local level.

Especially considering the lack of empirical cases, future research should finally put in practice the policy suggestions provided here, in a way to verify their actual feasibility and implications, with a particular interest to anti-corruption collaborative governance arrangements.

Bibliography

- A.N.A.C. 2013. Corruzione sommersa e corruzione emersa in Italia: modalità di misurazione e prime evidenze empiriche [Submerged corruption and emerged corruption in Italy: measurement ways and first empirical evidences]: A.N.A.C.
- Abramo, C. W. 2008. How Much Do Perceptions of Corruption Really Tell Us? *Economics: The Open-Access, Open-Assessment E-Journal*, 2(3): 1-56.
- Abubakar, A., Prasojo, E., & Jannah, L. M. 2017. Collaborative Governance in Eradicating Corruption in Indonesia: Challenges and Opportunities, *Proceedings of the International Conference on Administrative Science, Policy and Governance Studies (ICAS-PGS 2017) and the International Conference on Business Administration and Policy (ICBAP 2017)*, vol. 167: Atlantis Press.
- Adams, G. R. & Schvaneveldt, J. D. 1991. *Understanding research methods / Gerald R. Adams, Jay D. Schvaneveldt* (Second ed.). New York: Longman.
- Ades, A. & Di Tella, R. 1995. *Competition and corruption*. Oxford, UK: University of Oxford. Institute of Economics and Statistics.
- Ades, A. & Di Tella, R. 1997. National champions and corruption: some unpleasant interventionist arithmetic. *The Economic Journal*, 107: 1023-1042.
- Adserà, A., Boix, C., & Payne, M. 2003. Are You Being Served? Political Accountability and Quality of Government. *The Journal of Law, Economics, and Organization*, 19(2): 445-490.
- Agranoff, R. & McGuire, M. 2001. Big Questions in Public Network Management Research. *Journal of Public Administration Research and Theory*, 11(3): 295-326.
- Albornoz, F. & Cabrales, A. 2013. Decentralization, political competition and corruption. *Journal of Development Economics*, 105: 103-111.
- Alford, J. 2014. The Multiple Facets of Co-Production: Building on the work of Elinor Ostrom. *Public Management Review*, 16(3): 299-316.
- Allegrini, V., Lai, Y., & Cecchetti, I. 2018. La collaborazione tra comuni e il suo impatto sulla qualità dei Piani Triennali di Prevenzione della Corruzione: un'analisi empirica [Collaboration between municipalities and its impact on the quality of Triennial Plans of Prevention of Corruption: An empirical analysis]. *Azienda Pubblica*(2): 165-188.
- Allen, P. 1988. Evolution, innovation and economics. In G. Dosi, C. Freeman, R. Nelson, G. Silverberg, & L. Soete (Eds.), *Technical change and economic theory*. London: Pinter.
- American Productivity & Quality Center. 2003. *Using Knowledge Management to Drive Innovation*. Houston, Texas: Amer Productivity Center; Spi Edition.
- Amigoni, F. 1978. Planning Management Control Systems, *Journal of Business Finance and Accounting*. *Journal of Business Finance and Accounting*, 5(3): 279-291.
- Ammons, D. N. 2001. *Municipal Benchmarks. Assessing Local Performance and Establishing Community Standards* (Second ed.). Thousand Oaks, California: SAGE Publications, Inc.
- Amundsen, I., Sissener, T., & Søreide, T. 2000. *Research on Corruption. A policy oriented survey*: 158 p. Norway: Chr. Michelsen Institute (CMI) & Norwegian Institute of International Affairs (NUPI).
- Andersen, D. L., Luna-Reyes, L. F., Diker, V. G., Black, L., Rich, E., & Andersen, D. F. 2012. The disconfirmatory interview as a strategy for the assessment of system dynamics models. *System Dynamics Review*, 28(3): 255-275.
- Andersson, S. & Heywood, P. M. 2009. The Politics of Perception: Use and Abuse of Transparency International's Approach to Measuring Corruption. *Political Studies*, 57(4): 746-767.
- Anechiarico, F. & Jacobs, J. B. 1996. *The pursuit of absolute integrity: How corruption control makes government ineffective*. Chicago: University of Chicago Press.
- Anechiarico, F. 2010. Protecting integrity at the local level: the role of anticorruption and public management networks. *Crime, Law and Social Change*, 53(1): 79-95.
- Anokhin, S. & Schulze, W. S. 2009. Entrepreneurship, innovation, and corruption. *Journal of Business Venturing*, 24(5): 465-476.

- Ansell, C. & Gash, A. 2007. Collaborative Governance in Theory and Practice. *Journal of Public Administration Research and Theory*, 18(4): 543-571.
- Anthony, R. 1965. Selection of a Framework, *Planning and Control Systems: A Framework for Analysis*: 1-23. Boston, MA: Division of Research, Harvard Business School.
- Anthony, R. N. & Welsch, G. A. 1974. The Management Control Process. In R. D. Irwin (Ed.), *Fundamentals of Management Accounting*.
- Aoki, M. 2001. *Toward a Comparative Institutional Analysis*. Cambridge, MA: MIT Press.
- Argyris, C. & Schon, D. 1978. *Organisational learning: A theory of action perspective*. Reading, Massachusetts: Addison Wesley.
- Argyris, C. 1982. *Reasoning, learning and action: Individual and organizational*. San Francisco, CA: Jossey-Bass.
- Argyris, C. 1985. *Strategy, change and defensive routines*. Boston: Pitman.
- Arloff, A. 2012. Italy, a Corrupt Power. *Futuribles: Analyse et Prospective*(381): 5-20.
- Arnone, M. & Iliopoulos, E. 2005. *La corruzione costa. Effetti economici, istituzionali e sociali [Corruption costs. Economic, institutional, and social effects]*. Italy: Vita e Pensiero.
- Arrow, K. J. 1963. Uncertainty and the Welfare Economics of Medical Care. *The American Economic Review*, 53(5): 941-973.
- Arvate, P. R., Curi, A. Z., Rocha, F., & Miessi Sanches, F. A. 2010. Corruption and the size of government: causality tests for OECD and Latin American countries. *Applied Economics Letters*, 17(10): 1013-1017.
- Ashforth, B. E. & Anand, V. 2003. The normalization of corruption in organizations. *Research in Organizational Behavior*, 25: 1-52.
- Avviso Pubblico; Amministrazioni sciolte per mafia: dati riassuntivi [Administrations dissolved for mafia: summary data]; <https://www.avvisopubblico.it/home/home/cosa-facciamo/informare/documenti-tematici/comuni-sciolti-per-mafia/amministrazioni-sciolte-mafia-dati-riassuntivi/>; June 28, 2021.
- Bac, M. 1998. The Scope, Timing, and Type of Corruption. *International Review of Law and Economics*, 18(1): 101-120.
- Baets, W. 2005. *Knowledge Management and Management Learning: Extending the Horizons of Knowledge-Based Management*. New York, NY: Springer Science + Business Media, Inc.
- Baldi, S., Bottasso, A., Conti, M., & Piccardo, C. 2016. To bid or not to bid: That is the question: Public procurement, project complexity and corruption. *European Journal of Political Economy*, 43: 89-106.
- Bandiera, O., Prat, A., & Valletti, T. 2009. Active and Passive Waste in Government Spending: Evidence from a Policy Experiment. *American Economic Review*, 99(4): 1278-1308.
- Barbiero, A. & Ferrari, F. 2015. L'aggiornamento del Piano Nazionale Anticorruzione: elementi specifici per appalti e società partecipate [The update of the National Anti-Corruption Plan: specific elements for tenders and investee companies], *Management locale. Rivista di amministrazione, finanza e controllo*: 5-13: ASFEL.
- Barlas, Y. 1996. Formal aspects of model validity and validation in system dynamics. *System Dynamics Review*, 12(3): 28.
- Basheka, B. C. 2009. Public procurement corruption and its implications on effective service delivery in Uganda: An empirical study. *International Journal of Procurement Management*, 2(4): 415-440.
- Basheka, B. C. & Bisangabasaija, E. 2010. Determinants of unethical public procurement in local government systems of Uganda: A case study. *International Journal of Procurement Management*, 3(1): 91-104.
- Basheka, B. C., Oluca, P. N., & Karyeija, G. K. 2013. The nature and forms of public procurement corruption in Uganda's local government systems: Implications for good governance debate. *International Journal of Procurement Management*, 6(6): 684-701.
- Basheka, B. C., Oluca, P. N., & Mugurusi, G. 2015. Citizen-driven approaches for combating public procurement corruption in Uganda's local government systems: An empirical survey. *International Journal of Logistics Systems and Management*, 21(4): 442-464.

- Batra, G., Kaufmann, D., & Stone, A. H. W. 2004. The Firms Speak: What the World Business Environment Survey Tells Us About Constraints on Private Sector Development. *SSRN Electronic Journal*: 2.
- Bauhr, M. & Grimes, M. 2014. Indignation or Resignation: The Implications of Transparency for Societal Accountability. *Governance*, 27(2): 291-320.
- Bearfield, D. A. 2009. What Is Patronage? A Critical Reexamination. *Public Administration Review*, 69(1): 64-76.
- Becker, G. S. 1968. Crime and Punishment. An Economic Approach. *Journal of Political Economy*, 76(2): 169-217.
- Behn, R. D. 1978. How to Terminate a Public Policy: A Dozen Hints for the Would-be Terminator. *Policy Analysis*, 4(3): 393-413.
- Behn, R. D. 1998. What Right Do Public Managers Have to Lead? *Public Administration Review*, 58(3): 209-224.
- Bergeron, B. 2003. *Essentials of Knowledge Management*. New Jersey, USA: John Wiley & Sons, Inc.
- Berle, A. & Means, G. C. 1932. *The modern corporation and private property*. New York, NY: Macmillan.
- Bertrand, M., Djankov, S., Hanna, R., & Mullainathan, S. 2007. Obtaining a Driver's License in India: An Experimental Approach to Studying Corruption*. *The Quarterly Journal of Economics*, 122(4): 1639-1676.
- Besley, T. & McLaren, J. 1993. Taxes and Bribery: The Role of Wage Incentives. *The Economic Journal*, 103(416): 119-141.
- Bevir, M., Rhodes, R. A. W., & Weller, P. 2003. Traditions of governance: interpreting the changing role of the public sector. *Public Administration*, 81(1): 1-17.
- Bevir, M. 2012. *Governance: A Very Short Introduction*. Oxford, UK: Oxford University Press.
- Bhattacharyya, S. & Hodler, R. 2015. Media freedom and democracy in the fight against corruption. *European Journal of Political Economy*, 39: 13-24.
- Bianchi, C. 2009. *Modelli di System Dynamics per il miglioramento della performance aziendale. Verso un sistema di programmazione e controllo per lo sviluppo sostenibile [System Dynamics models for improving organizational performance. Towards a planning and control system for sustainable development]*. Italy: IPSOA Wolters Kluwer Italia S.r.l.
- Bianchi, C., Cosenz, F., & Marinković, M. 2015. *Designing Dynamic Performance Management Systems to Foster SME Competitiveness according to a Sustainable Development Perspective. Empirical Evidences from a Case-Study*: International Journal of Business Performance Management.
- Bianchi, C. 2016. *Dynamic Performance Management*. Switzerland: Springer International Publishing.
- Bianchi, C., Bereciartua, P., Vignieri, V., & Cohen, A. 2019. Enhancing Urban Brownfield Regeneration to Pursue Sustainable Community Outcomes through Dynamic Performance Governance. *International Journal of Public Administration*: 1-15.
- Bianchi, C. 2021. Fostering sustainable community outcomes through policy networks: a dynamic performance governance approach. In J. W. Meek (Ed.), *Handbook of collaborative public management*: 333-356. Cheltenham, UK: Edward Elgar Publishing.
- Bingham, L. B. & O'Leary, R. 2008. *Big ideas in collaborative public management*: Armonk, NY.
- Boardman, C. & Klum, V. 2013. Building organisational integrity. In P. Larmour & N. Wolanin (Eds.), *Corruption and Anti-Corruption*: 82-96: ANU Press.
- Bogdanor, V. 2005. *Joined-Up Government*. Oxford: British Academy: Oxford University Press.
- Boin, A., 't Hart, P., Stern, E., & Sundelius, B. 2005. *The Politics of Crisis Management: Public Leadership Under Pressure*. Cambridge: Cambridge University Press.
- Boissevain, J. 1966. Patronage in Sicily. *MAN*, 1(1): 18 – 33.
- Booth, D. & Cammack, D. 2013. *Governance for Development in Africa: Solving Collective Action Problems*. New York, NY: Zed Books.
- Borgonovi, E. 2005. *Principi e sistemi aziendali per le amministrazioni pubbliche* (Fifth ed.). Milano: EGEA.

- Borgonovi, E., Anessi-Pessina, E., & Bianchi, C. 2018. Outcome-Based Performance Management in the Public Sector. In E. Borgonovi, E. Anessi-Pessina, & C. Bianchi (Eds.), vol. 2: 448. Italy: Springer International Publishing.
- Borgonovi, E., Monteduro, F., & Mussari, R. 2018. Presentazione della Special Issue. *Azienda Pubblica*(2): 115-122.
- Borins, S. 2002. New Public Management, North American style. In K. McLaughlin, S. P. Osborne, & E. Ferlie (Eds.), *New Public Management: Current trends and future prospects*: 181-194. London and New York: Routledge.
- Bouckaert, G. & Halligan, J. 2007. *Managing Performance: International comparisons* (First ed.). London: Routledge.
- Bovaird, T. 2007. Beyond Engagement and Participation: User and Community Coproduction of Public Services. *Public Administration Review*, 67(5): 846-860.
- Bovaird, T. 2009. The changing context of public policy. In T. Bovaird & E. Löffler (Eds.), *Public Management and Governance*, Second ed.: 15-26. USA and Canada: Routledge.
- Bovaird, T. & Löffler, E. 2009. Understanding public management and governance. In T. Bovaird & E. Löffler (Eds.), *Public Management and Governance*, Second ed.: 3-14. USA and Canada: Routledge.
- Boyatzis, R. E. 1998. *Transforming qualitative information: thematic analysis and code development*. London, UK: SAGE Publications, Inc.
- Boycko, M., Shleifer, A., & Vishny, R. W. 1996. A Theory of Privatisation. *The Economic Journal*, 106(435): 309-319.
- Brada, J. C., Drabek, Z., Mendez, J. A., & Perez, M. F. 2018. National levels of corruption and foreign direct investment. *Journal of Comparative Economics*.
- Bradbury, K. L. 1982. Fiscal distress in large U.S. *New England Economic Review*: 33-43.
- Breccia, A. & Focardi, G. 2019. What Modernization in Christian-Democrat Italy? The State facing Socio-Economic Transformation of 1948-1968. *Memoria y Civilización*, 21: 479-499.
- Brennan, G. & Buchanan, J. 1980. *The Power to Tax*: Cambridge University Press.
- Broms, R., Dahlström, C., & Fazekas, M. 2019. Political Competition and Public Procurement Outcomes. *Comparative Political Studies*: 001041401983072.
- Brunetti, A. & Weder, B. 2003. A free press is bad news for corruption. *Journal of Public Economics*, 87(7): 1801-1824.
- Bryson, J. 2004. What to do when stakeholders matter: A guide to stakeholder identification and analysis techniques. *Public Management Review*, 6(1): 21-53.
- Bryson, J. M., Crosby, B. C., & Stone, M. M. 2006. The Design and Implementation of Cross-Sector Collaborations: Propositions from the Literature. *Public Administration Review*, 66(s1): 44-55.
- Byrne, E., Arnold, A.-K., & Nagano, F. 2010. Building Public Support for Anti-Corruption Efforts: Why Anti-Corruption Agencies Need to Communicate and How: 74. Washington DC: The World Bank & United Nations Office on Drugs and Crime.
- Ca' Foscari University of Venice; 1104 Dissesti+Riequilibri dichiarati tra 04-1989 e 12-2020 [1104 Failures + Rebalances declared between 04-1989 and 12-2020]; http://www.cafoscari.eu/studi/public/elen_info.php; June 28, 2021.
- Camarinha-Matos, L. M. & Afsarmanesh, H. 2006. Collaborative Networks: Value creation in a knowledge society. In K. Wang, G. Kovacs, M. Wozny, & M. Fang (Eds.), *International Federation for Information Processing (IFIP)*, vol. 207: 26-40. Boston, MA: Springer US.
- Campos, J. E. & Pradhan, S. 2007. *The Many Faces of Corruption: Tracking Vulnerabilities at the Sector Level*. Washington DC, USA: The World Bank.
- Capalbo, E., Grossi, G., Ianni, L., & Sargiacomo, M. 2010. Financial distress and Italian local governments. *Debating the national special*.
- Cavaliere, M., Guccio, C., Lisi, D., & Rizzo, I. 2019. Does Institutional Quality Matter for Infrastructure Provision? A Non-parametric Analysis for Italian Municipalities. *Italian Economic Journal*.

- Ceschel, F., Hinna, A., & Rotundi, F. 2018. Risk management e anticorruzione nelle organizzazioni pubbliche: analisi comparativa delle prassi internazionali [Risk management and anticorruption in public organisations: a comparative analysis of the international practices]. *Azienda Pubblica*(2): 111-246.
- Chafuen, A. & Guzman, E. 2000. *Economic Freedom and Corruption*, in O'Driscoll, G., Holmes, K. & Kirkpatrick, M. (eds.) 2000. *Index of Economic Freedom*, Washington: *The Heritage Foundation*: pp. 51-63.
- Chan, K. 2001. Uncertainty, Acculturation, and Corruption in Hong Kong. *International Journal of Public Administration*, 24(9): 909-928.
- Charron, N. 2008. Mapping and Measuring the Impact of Anti-Corruption Agencies: A New Dataset for 18 Countries, *Ancorage-Net. Org.* Goteborg, Sweden.
- Chiarini, B., Marzano, E., & Schneider, F. 2013. Tax rates and tax evasion: an empirical analysis of the long-run aspects in Italy. *European Journal of Law and Economics*, 35(2): 273-293.
- Cho, Y. H. & Choi, B.-D. 2004. E-Government to Combat Corruption: The Case of Seoul Metropolitan Government. *International Journal of Public Administration*, 27(10): 719-735.
- Christensen, T. & Læg Reid, P. 2005. Trust in Government: The Relative Importance of Service Satisfaction, Political Factors, and Demography. *Public Performance & Management Review*, 28(4): 487-511.
- Christensen, T. & Læg Reid, P. 2007. The Whole-of-Government Approach to Public Sector Reform. *Public Administration Review*, 67(6): 1059-1066.
- Christensen, T. & Laegreid, P. 2007. *New Public Management: Transformation of Ideas and Practice*. Aldershot: Ashgate.
- Christensen, T., Fimreite, A. L., & Læg Reid, P. 2014. Joined-Up Government for Welfare Administration Reform in Norway. *Public Organization Review*, 14(4): 439-456.
- Civitillo, R. 2012. *Financial difficulties of Italian local authorities: A financial critical elements analysis to identify prediction and diagnosis models*, Athens: ATINER'S Conference Paper Series, No: MDT2012-0014.
- Civitillo, R. 2019. *Il dissesto finanziario degli enti locali. Profili economico-aziendali [The financial distress of local authorities. Public administration profiles]* (1 ed.). Milano: FrancoAngeli.
- Clausen, B., Kraay, A., & Nyiri, Z. 2011. Corruption and Confidence in Public Institutions: Evidence from a Global Survey. *The World Bank Economic Review*, 25(2): 212-249.
- Coase, R. H. 1960. The Problem of Social Cost. *The Journal of Law & Economics*, , 3: 1-44.
- Coe, C. K. 2008. Preventing Local Government Fiscal Crises: Emerging Best Practices. *Public Administration Review*, 68(4): 759-767.
- Cohen, S., Doumpos, M., Neofytou, E., & Zopounidis, C. 2012. Assessing financial distress where bankruptcy is not an option: An alternative approach for local municipalities. *European Journal of Operational Research*, 218(1): 270-279.
- Cohen, S., Costanzo, A., & Manes-Rossi, F. 2017. Auditors and early signals of financial distress in local governments. *Managerial Auditing Journal*, 32(3): 234-250.
- Consip; Consip official website; <https://www.consip.it/azienda/chi-siamo>; November 30, 2020.
- Contaldi, G. 2020. La tutela degli interessi collettivi nel diritto dell'Unione Europea [The protection of collective interests in European Union law]. *Ordine Internazionale e Diritti Umani (OIDU)*, 1: 10-25.
- Cooper, T. & Gulick, L. 1984. Citizenship and Professionalism in Public Administration. *Public Administration Review*, 44: 143-151.
- Cooper, T. L., Bryer, T. A., & Meek, J. W. 2006. Citizen-Centered Collaborative Public Management. *Public Administration Review*, 66(1): 76-88.
- Corbin, J. & Strauss, A. 2008. Analyzing Data for Concepts. In S. R. Methods (Ed.), *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, Third ed.: 159-194. Thousand Oaks: SAGE Publications, Inc.
- Cordis, A. S. & Milyo, J. 2016. Measuring Public Corruption in the United States: Evidence From Administrative Records of Federal Prosecutions. *Public Integrity*, 18(2): 127-148.

- Cosenz, F. 2010. A System Dynamics Approach to Analysing the Effect of Clientelism on Public Organizations Performance in Italy. *Review of International Comparative Management*, 11(2): 325-337.
- Cosenz, F. & Noto, G. 2014. A Dynamic Simulation Approach to Frame Drivers and Implications of Corruption Practices on Firm Performance (Autumn-Winter 2014). *European Management Review*, 11(3-4): 239-257.
- Costanza, R. & Ruth, M. 1998. Using Dynamic Modeling to Scope Environmental Problems and Build Consensus. *Environmental Management*, 22(2): 183-195.
- Courpasson, D., Dany, F., & Clegg, S. 2012. Resisters at Work: Generating Productive Resistance in the Workplace. *Organization Science*, 23(3): 801-819.
- Coviello, D. & Gagliarducci, S. 2017. Tenure in Office and Public Procurement. *American Economic Journal: Economic Policy*, 9(3): 59-105.
- Coviello, D., Guglielmo, A., & Spagnolo, G. 2018. The Effect of Discretion on Procurement Performance. *Management Science*, 64(2): 715-738.
- Cristofaro, M. 2017. Herbert Simon's bounded rationality: Its historical evolution in management and cross-fertilizing contribution. *Journal of Management History*, 23(2): 170-190.
- Crosby, B. C. & Bryson, J. M. 2010. Integrative leadership and the creation and maintenance of cross-sector collaborations. *The Leadership Quarterly*, 21(2): 211-230.
- D'Souza, A. & Kaufmann, D. 2013. Who bribes in public contracting and why: Worldwide evidence from firms. *Economics of Governance*, 14(4): 333-367.
- David, R. & Brierley, J. E. C. 1985. *Major legal systems in the world today : an introduction to the comparative study of law* (3rd ed.). London: Stevens & Sons.
- Davis, H. 2009. Ethics and standards of conduct. In T. Bovaird & E. Löffler (Eds.), *Public Management and Governance*, Second ed.: 311-326. USA and Canada: Routledge.
- Dawood, Y. 2014. *Classifying Corruption*. *Duke Journal of Constitutional Law & Public Policy*, 9(1): 31.
- Day, P. & Klein, R. 1987. *Accountabilities*. London: Tavistock.
- de Araujo Santos, N., Pereira, L. A., & Rodrigues, D. S. 2018. Relationship between performance of the FunDeb municipal board and active and passive waste. *Brazilian Business Review*, 15(5): 460-474.
- de Gooyert, V. 2018. Developing dynamic organizational theories; three system dynamics based research strategies. *Quality & Quantity*, 53(2): 653-666.
- de Sousa, L., Larmour, P., & Hindess, B. 2009. *Governments, NGOs and Anti-Corruption: The New Integrity Warriors*. London; New York: Routledge.
- De Toni, A. 2017. Lo Stato di crisi negli enti locali, *Documenti di ricerca*: Fondazione Nazionale dei Commercialisti.
- Debski, J., Jetter, M., Möhle, S., & Stadelmann, D. 2018. Gender and corruption: The neglected role of culture. *European Journal of Political Economy*, 55: 526-537.
- Deininger, K. & Squire, L. 1996. A new data set measuring income inequality (English). *The World Bank Economic Review*, 10(3): 565-591.
- Del Monte, A. & Papagni, E. 2007. The determinants of corruption in Italy: Regional panel data analysis. *European Journal of Political Economy*, 23(2): 379-396.
- della Porta, D. 1995. *Social Movements, Political Violence and the State*. New York: Cambridge University Press.
- della Porta, D. & Diani, M. 2006. *Social Movements: An Introduction* (Second ed.). Oxford: Wiley-Blackwell.
- della Porta, D. 2017. Anti-Corruption From Below: Social movements against corruption in late neoliberalism. *Partecipazione e Conflitto*, 10(3): 661-692.
- Denscombe, M. 2012. *Research Proposals: A practical guide*. Maidenhead Berkshire: McGraw-Hill Education.
- Di Mascio, F. 2014. Exploring the link between patronage and party institutionalization: an historical-institutional analysis of the Italian transition. *Democratization*, 21(4): 678-698.

- Di Palma, V.; The role of academia in anti-corruption Collective Action; <https://baselgovernance.org/blog/role-academia-anti-corruption-collective-action>; September 24, 2020.
- Di Tella, R. & Schargrodsky, E. 2003. The Role of Wages and Auditing during a Crackdown on Corruption in the City of Buenos Aires. *The Journal of Law and Economics*, 46(1): 269-292.
- Di Vita, G. 2011. Curbing Corruption in Public Administration: A Case Study from Italy. *International Journal of Public Administration*, 34(10): 631-645.
- Dick, B.; Convergent interviewing: A technique for qualitative data collection; <http://www.aral.com.au/resources/iview.html>; June 25, 2019.
- Dimant, E. & Tosato, G. 2017. Causes and Effects of Corruption: What Has Past Decade's Empirical Research Taught Us? A Survey. 32(2): 335-356.
- Doig, A., Watt, D., & Williams, R. 2007. Why do developing country anti-corruption commissions fail to deal with corruption? Understanding the three dilemmas of organisational development, performance expectation, and donor and government cycles. *Public Administration and Development*, 27(3): 251-259.
- Dollar, D., Fisman, R., & Gatti, R. 2001. Are women really the “fairer” sex? Corruption and women in government. *Journal of Economic Behavior & Organization*, 46(4): 423-429.
- Domberger, S. & Jensen, P. 1997. Contracting out by the public sector: theory, evidence, prospects. *Oxford Review of Economic Policy*, 13(4): 67-78.
- Dubow, W., Hug, S., Serafini, B., & Litzler, E. 2018. Expanding our understanding of backbone organizations in collective impact initiatives. *Community Development*, 49(3): 256-273.
- Dza, M., Gapp, R., & Fisher, R. 2015. Taking the professionalism out of the profession: A study of procurement and Africa. *International Journal of Procurement Management*, 8(3): 251-271.
- Easton, D. 1965. *A Systems Analysis of Political Life*. New York: John Wiley.
- Edmondson, A. C. 1996. Three Faces of Eden: The Persistence of Competing Theories and Multiple Diagnoses in Organizational Intervention Research. *Human Relations*, 49(5): 571-595.
- Eigen, P. 2005. Introduction. In D. Rodriguez, Waite G., and Wolfe, T. (Ed.), *Global Corruption Report 2005*: xi-xii. London: Pluto Press.
- Eisenhardt, K. M. 1989. Agency theory: an assessment and review. *Academy of Management Review*, 14(1): 57-74.
- Eizenstat, S. E. 1998. Promoting the Rule of Law and Anti- Corruption in an Global Economy; . *Economic Perspectives* 3, (5).
- Elster, J. 1985. Rationality, morality and collective action. *Ethnics*, 96: 136-155.
- Erridge, A. 2009. Contracting for public services. In T. Bovaird & E. Löffler (Eds.), *Public Management and Governance*, Second ed.: 95-108. USA and Canada: Routledge.
- Estermann, T. & Kupriyanova, V. 2018. A comparative analysis of public procurement frameworks and practices in universities in Portugal and selected EU member states, *EUA Report*: 83. Bruxelles, Belgium: European University Association.
- European Bank; BEEPS; <http://ebrd-beeps.com/reports/>; June 24, 2019.
- European Commission & Europol. 2001. Annual European Union Organised Crime Situation Report. data.consilium.europa.eu/doc/document/ST-10415-2000-INIT/en/pdf: European Commission and Europol.
- European Commission; Public procurement guidance for practitioners; https://ec.europa.eu/regional_policy/sources/docgener/guides/public_procurement/2018/guidance_public_procurement_2018_en.pdf; May 29, 2019.
- European Commission; Thresholds; https://ec.europa.eu/growth/single-market/public-procurement/rules-implementation/thresholds_en; May 29, 2019.
- European Commission; Public Procurement; <http://ec.europa.eu/growth/single-market/public-procurement/>; February 11, 2019.
- Fama, E. F. & Jensen, M. C. 1983. Separation of Ownership and Control. *Journal of Law and Economics, The University of Chicago Press*, 26(2): 301-325.

- Fantini, S. & Simonetti, H. 2017. *Le basi del diritto dei contratti pubblici. Aggiornato allo Schema di decreto correttivo del Codice dei contratti pubblici*. Milano: Giuffrè Editore.
- Fazekas, M., Cingolani, L., & Tóth, B. 2016a. A comprehensive review of objective corruption proxies in public procurement: risky actors, transactions, and vehicles of rent extraction, *Working Paper series: GTI-WP/2016:03*: Government Transparency Institute.
- Fazekas, M., Tóth, I. J., & King, L. P. 2016b. An Objective Corruption Risk Index Using Public Procurement Data. *European Journal on Criminal Policy and Research*, 22(3): 369–397.
- Fazekas, M. & Kocsis, G. 2017. Uncovering High-Level Corruption: Cross-National Objective Corruption Risk Indicators Using Public Procurement Data. *British Journal of Political Science*, 50(1): 155-164.
- Ferrante, L. & Vannucci, A. 2017. *Anticorruzione Pop [Pop Anti-corruption]*. Italy: Edizioni Gruppo Abele.
- Ferraz, C. & Finan, F. 2008. Exposing Corrupt Politicians: The Effect of Brazil's Publicly Released Audits on Electoral Outcomes. *The Quarterly Journal of Economics*, 123(2): 703-745.
- Ferraz, C. & Finan, F. 2011. Electoral Accountability and Corruption: Evidence from the Audits of Local Governments. *American Economic Review*, 101(4): 1274-1311.
- Ferreira, I., Camões, P. J., Cunha, S., & Amaral, L. A. 2017. *Electronic platforms and transparency in public procurement*. Paper presented at the 30th International Business Information Management Association Conference - Vision 2020: Sustainable Economic development, Innovation Management, and Global Growth, IBIMA 2017, Madrid, Spain.
- Ferri, P. & Zan, L. 2019. Accountability and patronage in extraordinary administrations: Evidence from Pompeii. *Financial Accountability & Management*, 35(1): 72-89.
- Ferwerda, J., Deleanu, I., & Unger, B. 2017. Corruption in Public Procurement: Finding the Right Indicators. *European Journal on Criminal Policy*, 23(2): 245-267.
- Finocchiaro Castro, M., Guccio, C., & Rizzo, I. 2014. An assessment of the waste effects of corruption on infrastructure provision. *International Tax and Public Finance*, 21(4): 813-843.
- Finocchiaro Castro, M., Guccio, C., Pignataro, G., & Rizzo, I. 2018. Is competition able to counteract the inefficiency of corruption? The case of Italian public works. *Economia e Politica Industriale*, 45(1): 55-84.
- Fišar, M., Kubák, M., Špalek, J., & Tremewan, J. 2016. Gender differences in beliefs and actions in a framed corruption experiment. *Journal of Behavioral and Experimental Economics*, 63: 69-82.
- Fisman, D., Fisman, R. J., Galef, J., Khurana, R., & Wang, Y. 2012. Estimating the value of connections to vice-president Cheney. *The B.E. journal of economic analysis & policy*, 13(3): 1-18.
- Fisman, R. & Gatti, R. 2002. Decentralization and corruption: evidence across countries. *Journal of Public Economics*, 83(3): 325-345.
- Fisman, R. & Miguel, E. 2007. Corruption, Norms, and Legal Enforcement: Evidence from Diplomatic Parking Tickets. *Journal of Political Economy*, 115(6): 1020-1048.
- Flinders, M. & Matthews, F. 2010. Think again: patronage, governance and the smarter state. *Policy & Politics*, 38(4): 639-656.
- Forbes, K. J. 2000. A Reassessment of the Relationship between Inequality and Growth %J American Economic Review. 90(4): 869-887.
- Forrester, J. W. 1961. *Industrial dynamics*. Cambridge, Mass.: M.I.T. Press.
- Forrester, J. W. 1992. Policies, decisions and information sources for modeling. *European Journal of Operational Research* 59(1992): 42-63.
- Fourie, D. 2018. Ethics in municipal supply chain management in South Africa. *Local Economy*, 33(7): 726-739.
- Frank, B., Lambsdorff, J. G., & Boehm, F. 2011. Gender and Corruption: Lessons from Laboratory Corruption Experiments. *The European Journal of Development Research*, 23(1): 59-71.
- Freeman, R. E. 1984. *Strategic management: A stakeholder approach*. Boston: Pitman.

- Fritzen, S. 2005. Beyond 'Political Will': How Institutional Context Shapes the Implementation of Anti-Corruption Policies. *Policy & Society: Journal of Public, Foreign and Global Policy*, 24(3): 79-96.
- Fukuyama, F. 2005. Foreword. In D. Rodriguez, Waite G., and Wolfe, T. (Ed.), *Global Corruption Report 2005*: xi-xii. London: Pluto Press.
- Gabardo, E. 2017. *The Principle of Supremacy of the Public Interest over Private Interest as the Foundation of Social Administrative Law*. *Revista de Investigações Constitucionais*, 4(2): 95-130.
- Galli, D., Giacomelli, G., & Valotti, G. 2018. Misurazione della performance e gestione del rischio: l'utilizzo di indicatori red flag per la prevenzione della corruzione nel settore pubblico. *Azienda Pubblica*(2): 147-163.
- Gans-Morse, J., Borges, M., Makarin, A., Mannah-Blankson, T., Nickow, A., & Zhang, D. 2018. Reducing bureaucratic corruption: Interdisciplinary perspectives on what works. *World Development*, 105: 171-188.
- Gardiner, J. A. 1978. *Decisions for sale : corruption and reform in land-use and building regulation / John A. Gardiner, Theodore R. Lyman*. New York: Praeger.
- Gerring, J. & Thacker, S. C. 2004. Political Institutions and Corruption: The Role of Unitarism and Parliamentarism. *British Journal of Political Science*, 34(2): 295-330.
- Gerring, J. & Thacker, S. C. 2005. Do Neoliberal Policies Deter Political Corruption? *International Organization*, 59(1): 233-254.
- Giannini, M. S. 1976. La tutela degli interessi collettivi nei procedimenti amministrativi [The protection of collective interests in administrative proceedings], *Le azioni a tutela degli interessi collettivi [The protection measures of collective interests]*: 23 et seq. Padova, Italy: Atti del Convegno di studio.
- Gilman, S. C. 2010. Preface. In E. Byrne, A.-K. Arnold, & F. Nagano (Eds.), *Building Public Support for Anti-Corruption Efforts: Why Anti-Corruption Agencies Need to Communicate and How*: 74. Washington DC: The World Bank & United Nations Office on Drugs and Crime.
- Giroux, G. & Shields, D. 1993. Accounting controls and bureaucratic strategies in municipal government. *Journal of Accounting and Public Policy*, 12(3): 239-262.
- Giuncato, A. 1995. Il risanamento degli enti in dissesto [The rebalancing of distressed local authorities]. *AziendaItalia*, 2(4): 242-245.
- Glaeser, E. L. & Schleifer, A. 2002. *Legal origins*. *The Quarterly Journal of Economics*, 117(4): 1193-1229.
- Gnoffo, S. 2021a. A Dynamic Performance Management Approach to Frame Corruption in Public Procurement: A Case-Study. *Journal of Public Procurement*, 21(1): 75-96.
- Gnoffo, S. 2021b. *Relazioni fra malagestione e dissesto degli enti locali: un caso-studio basato su interviste convergenti non-strutturate [Relationships between maladministration and financial distress of local governments: A case-study based on non-structured convergent interviews]*. Paper presented at the National SIDREA Virtual Conference 2020, Bari, Italy.
- Goel, R. K. & Nelson, M. A. 1998. Corruption and government size: A disaggregated analysis. *Public Choice*, 97(1): 107-120.
- Goel, R. K. & Budak, J. 2006. Corruption in transition economies: Effects of government size, country size and economic reforms. *Journal of Economics and Finance*, 30(2): 240-250.
- Goel, R. K. & Nelson, M. A. 2010. Causes of corruption: History, geography and government. *Journal of Policy Modeling*, 32(4): 433-447.
- Golden, M. A. & Picci, L. 2005. Proposal for a New Measure of Corruption, Illustrated with Italian Data. *Economics & Politics*, 17(1): 37-75.
- Goldsmith, A. A. 1999. Slapping the Grasping Hand: Correlates of Political Corruption in Emerging Markets. *The American Journal of Economics and Sociology*, 58(4): 865-883.
- Goodin, R. E. & Stokes, S. C. 2013. *Political Clientelism*: Oxford University Press.
- Gori, E. & Fissi, S. 2012. *Il dissesto finanziario negli enti locali. Un modello per l'analisi e la prevenzione dei default [Financial distress in local authorities. A model for the analysis and prevention of defaults]*. Milano: FrancoAngeli.

- Graeff, P. & Mehlkop, G. 2003. The impact of economic freedom on corruption: different patterns for rich and poor countries. *European Journal of Political Economy*, 19(3): 605-620.
- Gramsci, A. 1948-1951. *Quaderni del carcere [Notebooks from jail]*. Torino.
- Granger, C. W. J. 1969. Investigating Causal Relations by Econometric Models and Cross-spectral Methods. *Econometrica*, 37(3): 424-438.
- Gray, A. & Jenkins, W. I. 1986. Accountable Management in British Central Government: Some Reflections on the Financial Management Initiative. *Financial Accountability & Management*, 2(3): 171-186.
- Gray, C. W. & Kaufman, D. 1998. Corruption and Development: The World Bank.
- Groenendijk, N. 1997. A principal-agent model of corruption". *Crime, Law and Social Change. Springer*, 27(3-4): 207-229.
- Grossman, S. J. & Hart, O. D. 1983. An analysis of the principal-agent problem. *Econometrica*, 51(1).
- Grzymala-Busse, A. 2008. Beyond Clientelism: Incumbent State Capture and State Formation. *Comparative Political Studies*, 41(4-5): 638-673.
- Guarini, E., De Toni, A., & Vallone, C. 2015. An anatomy of governance failures in municipal bankruptcy, *Studies in Public and Non-Profit Governance*, vol. 4: 189-216.
- Guarnieri, P. & Gomes, R. C. 2019. Can public procurement be strategic? A future agenda proposition. *Journal of Public Procurement*, 19(4): 295-321.
- Guasch, J. L. 2004. Granting and Renegotiating Infrastructure Concessions: Doing it Right, *WBI Development Studies*. Washington, DC: World Bank.
- Guccio, C., Lisi, D., & Rizzo, I. 2019. When the purchasing officer looks the other way: on the waste effects of debauched local environment in public works execution. *Economics of Governance*, 20(3): 205-236.
- Halligan, J., Sarrico, C., & Rhodes, M. L. 2012. On the road to performance governance in the public domain? *International Journal of Productivity and Performance Management*, 61(3): 224-234.
- Hansmann, H. B. 1980. The Role of Nonprofit Enterprise. *The Yale Law Journal*, 89(5): 835-901.
- Hardin, G. 1968. The tragedy of the commons. *Science*, 162: 1243-1248.
- Hardoon, D. & Heinrich, F. 2011. Bribe Payers Index 2001: Transparency International.
- Hartley, J. & Allison, M. 2000. The Modernization and Improvement of Government and Public Services: The Role of Leadership in the Modernization and Improvement of Public Services. *Public Money & Management*, 20(2): 35-40.
- Hatry, H. P. 2003. Results matter: Suggestions for a developing country's early outcome measurement effort. In A. Shah (Ed.), *Handbook on public sector performance reviews (Vol. 2) : Measuring government performance in the delivery of public services (English)*. Washington, DC: World Bank.
- Hauser, C. 2018. Fighting Against Corruption: Does Anti-corruption Training Make Any Difference? *Journal of Business Ethics*(In press): 1-19.
- Hawkins, R. B. J. 2000. Institute for Contemporary Studies Foreword. In R. Klitgaard, R. Maclean-Abaroa, & H. L. Parris (Eds.), *Corrupt cities: A practical guide to cure and prevention*: vi-vii. California: Institute for Contemporary Studies.
- He, N. 2016. *Rethinking the Causes of Corruption: Perceived Corruption, Measurement Bias, and Cultural Illusion*. *Chin. Polit. Sci. Rev.*, 1: 268-302.
- Head, B. W. & Alford, J. 2013. Wicked Problems: Implications for Public Policy and Management. *Administration & Society*, 47(6): 711-739.
- Heffron, F. A. 1989. *Organization Theory & Public Organizations* (First ed.). New Jersey: Prentice Hall.
- Heggstad, K. K. & Frøystad, M. 2011. The basics of integrity in procurement, *U4 Issue - Public financial management, Development cooperation, Procurement*. Bergen, Norway: Chr. Michelsen Institute.
- Hellman, J. S., Jones, G., & Kaufmann, D. 2000. Seize the State, Seize the Day: State Capture, Corruption, and Influence in Transition: 43. Washington D.C.: EBRD and The World Bank.

- Hellweg, S. A. & Phillips, S. L. 1982. Communication and Productivity in Organizations. *Public Productivity Review*, 6(4): 276-288.
- Hemmati, M. 2002. *Multi-stakeholder Processes for Governance and Sustainability* (First ed.). London: Routledge.
- Henderson, D. R. 1999. Power corrupts – editorial comment, *The Wall Street Journal*. New York City, NY.
- Heron, J. 1996. *Co-operative Inquiry: Research into the Human Condition* (First ed.). London: SAGE Publications Ltd.
- Herzfeld, T. & Weiss, C. 2003. Corruption and legal (in)effectiveness: an empirical investigation. *European Journal of Political Economy*, 19(3): 621-632.
- Hill, C. J. & Lynn, L. E., Jr. 2004. Is Hierarchical Governance in Decline? Evidence from Empirical Research. *Journal of Public Administration Research and Theory*, 15(2): 173-195.
- Hinna, A., Rotundi, F., & Ceschel, F. 2017. Il sistema di gestione del rischio di corruzione tra risk management e change management. In M. Nunziata (Ed.), *Riflessioni in tema di lotta alla corruzione*: Carocci Editore.
- Hofstede, G. 1978. The Poverty of Management Control Philosophy. *The Academy of Management Review*, 3(3): 450-461.
- Hofstede, G. 1991. *Cultures and organizations: Software of the mind*. London; New York, NY: McGraw Hill.
- Holahan, R. & Lubell, M. 2016. Collective action theory. In C. Ansell & J. Torfing (Eds.), *Handbook on Theories of Governance*: 21-31. Cheltenham, UK; Northampton, MA, USA: Edward Elgar Publishing.
- Honadle, B. W. 2003. The States' Role in U.S. Local Government Fiscal Crises: A Theoretical Model and Results of a National Survey. *International Journal of Public Administration*, 26(13): 1431-1472.
- Hood, C. 1991. A Public Management for All Seasons? *Public Administration*, 69(1): 3-19.
- Hood, C. & Jackson, M. 1991. The New Public Management: A Recipe for Disaster? *Canberra Bulletin of Public Administration*, 64: 16-24.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. 2004. *Culture, Leadership, and Organizations: The Globe Study of 62 Societies*. Thousand Oaks: Sage Publications.
- Huberts, L., Anechiarico, F., & Six, F. 2008. *Local Integrity Systems: World Cities Fighting Corruption and Safeguarding Integrity*. The Hague: Eleven International Publishing.
- Hudson, B., Hardy, B., Henwood, M., & Wistow, G. 1999. In Pursuit of Inter-Agency Collaboration In The Public Sector. *Public Management: An International Journal of Research and Theory*, 1(2): 235-260.
- Huntington, S. P. 1968. Political Order and Political Decay. In S. P. Huntington (Ed.), *Political Order in Changing Societies*: 1-92. New Haven and London: Yale University Press.
- Husted, B. W. & Instituto Tecnológico y de Estudios. 1999. Wealth, Culture, and Corruption. *Journal of International Business Studies*, 30(2): 339-359.
- Huther, J. & Shah, A. 1998. Applying a Simple Measure of Good Governance to the Debate on Fiscal Decentralization, vol. 1: 39-61. World Bank, Washington DC: World Bank.
- Huxham, C. 2000. The challenge of collaborative governance. *Public Management: An International Journal of Research and Theory*, 2(3): 337-358.
- Hyman, R. & Brough, I. 1975. *Social Values and Industrial Relations: A Study of Fairness and Inequality*. Oxford: Basil Blackwell.
- Isaksen, J. 2005. The budget process and corruption, *U4 Issue - Development cooperation, Public financial management, Budget process*. Bergen, Norway: Chr. Michelsen Institute.
- ISTAT; I.Stat data warehouse; <http://dati.istat.it/Index.aspx?lang=en&SubSessionId=6a76a328-d4ad-4ea8-9496-e149b659c1b8>; March 6, 2020.
- ISTAT; PublicAdministration.Stat: Statistical indicators on central and local government; <http://dati.statistiche-pa.it/Index.aspx?lang=en&SubSessionId=6bf83b13-08d6-48bd-9f54-3d197f082679>; November 5, 2020.

- Italian Ministry of the Interior. 2019. Criticità finanziarie degli enti locali: Cause e spunti di riflessione per una riforma delle procedure di prevenzione e risanamento [Financial issues of local authorities: Causes and points of reflection for a reform of prevention and rebalancing procedures]: Osservatorio sulla Finanza e la Contabilità degli Enti Locali.
- Jacko, T. 2016. Bottom-up versus top-down local governance: Local government anti-corruption approaches in the Slovak towns of Sala and Martin compared (case study). *Innovative Issues and Approaches in Social Sciences*, 5(2): 118-134.
- Jain, A. K. 2001. Corruption: A review. *Journal of Economic Surveys*, 15(1): 71-121.
- James, E. 1990. Economic theories of the nonprofit sector: a comparative perspective. In H. K. Anheier & W. Seibel (Eds.), *The third sector: comparative studies of nonprofit organizations*: 21-29. Berlin, Germany; New York, USA: De Gruyter.
- Jancsics, D. & Jávör, I. 2012. Corrupt Governmental Networks. *International Public Management Journal*, 15(1): 62-99.
- Jancsics, D. 2019. Corruption as Resource Transfer: An Interdisciplinary Synthesis. *Public Administration Review*, 79(4): 523-537.
- Jarvis, J. L. 2014. Digital image politics: the networked rhetoric of Anonymous. *Global Discourse: An Interdisciplinary Journal of Current Affairs and Applied Contemporary Thought Publication*, 4(2-3): 1-24.
- Jasper, J. M. 1997. *The Art of Moral Protest: Culture, Biography and Creativity in Social Movements*. Chicago: University of Chicago Press.
- Jensen, M. C. & Meckling, W. H. 1976. Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4): 305-360.
- Jha, C. K. & Sarangi, S. 2018. Women and corruption: What positions must they hold to make a difference? *Journal of Economic Behavior & Organization*, 151: 219-233.
- Jones, S. & Walker, R. G. 2007. Explanators of Local Government Distress. *Abacus*, 43(3): 396-418.
- Kajimbwa, M. G. A. 2018. Benchmarking accountability of local government authorities in public procurement in Tanzania: A methodological approach. *Benchmarking*, 25(6): 1829-1843.
- Kalenborn, C. & Lessmann, C. 2013. The impact of democracy and press freedom on corruption: Conditionality matters. *Journal of Policy Modeling*, 35(6): 857-886.
- Kania, J. & Kramer, M. 2011. Collective impact. *Stanford Social Innovation Review*, Essentials of Social Innovation(Winter): 36-41.
- Kaufman, R. R. 1974. The Patron-Client Concept and Macro-Politics: Prospects and Problems. *Comparative Studies in Society and History*, 16(3): 284-308.
- Kaufmann, D. 2000. World Bank Institute Foreword. In R. Klitgaard, R. Maclean-Abaroa, & H. L. Parris (Eds.), *Corrupt cities: A practical guide to cure and prevention*: viii-x. California: Institute for Contemporary Studies.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. 2006. Measuring Corruption: Myths and Realities: 5: World Bank, Draft, May 1st, 2006.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. 2007. Growth and Governance: A Reply. *Journal of Politics*, 69(2): 555-562.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. 2010. The Worldwide Governance Indicators: Methodology and Analytical Issues. *World Bank Policy Research*, Working Paper(5430).
- Keast, R., Mandell, M. P., Brown, K., & Woolcock, G. 2004. Network Structures: Working Differently and Changing Expectations. *Public Administration Review*, 64(3): 363-371.
- Kelman, S. 1990. *Procurement and Public Management: The Fear of Discretion and the Quality of Government Performance*. Washington, DC: American Enterprise Institute.
- Kelman, S. 2005. *Unleashing Change: A Study of Organizational Renewal in Government*. Washington, DC: Brookings Institution.
- Kenny, C. & Musatova, M. 2011. Red flags of corruption in World Bank projects. An analysis of infrastructure contracts. In S. Rose-Ackerman & T. Søreide (Eds.), *International Handbook on*

- the Economics of Corruption*, vol. 2: 21. Cheltenham, UK; Northampton, MA, USA: Edward Elgar Publishing Limited (UK); Edward Elgar Publishing, Inc. (USA).
- Kickert, W. 1993. Complexity Governance and Dynamics: Conceptual Explorations of Public Network Management. In J. Kooiman (Ed.), *Modern Governance*. London: Sage.
- Kickert, W., Randma-Liiv, T., & Savi, R. 2013. Fiscal consolidation in Europe: A comparative analysis, *COCOPS deliverable 7.2, September*.
- Kickert, W. J. M. 1997. Public Governance in the Netherlands: An Alternative to Anglo-American 'Managerialism'. *Public Administration*, 75(4): 731-752.
- Klitgaard, R. 1991. *Controlling Corruption* (First ed.). Berkeley and Los Angeles: University of California Press.
- Klitgaard, R., Maclean-Abaroa, R., & Parris, H. L. 2000. Corrupt cities: a practical guide to cure and prevention: 180. California: Institute for Contemporary Studies: Institute for Contemporary Studies.
- Kluvers, R. 2003. Accountability for Performance in Local Government. *Australian Journal of Public Administration*, 62(1): 57-69.
- Knack, S. 2006. Measuring Corruption in Eastern Europe and Central Asia : A Critique of the Cross-Country Indicators. *World Bank Policy Research Working Paper*(No. 3968): 64.
- Ko, K. & Samajdar, A. 2010. Evaluation of international corruption indexes: Should we believe them or not? *The Social Science Journal*, 47(3): 508-540.
- Koliba, C., Meek, J. W., & Zia, A. 2011. *Governance Networks in Public Administration and Public Policy*. Boca Raton, FL: CRC Press.
- Kolstad, I. 2008. Why Should Donors Care about Corruption?, vol. 7: 4. Bergen, Norway: Chr. Michelsen Institute.
- Kooiman, J. 1993. Findings, Speculations and Recommendations. In J. Kooiman (Ed.), *Modern Governance. New Government - Society Interactions*: 249-262. London, Thousand Oaks and New Delhi: SAGE Publications.
- Kopczynski, M. & Lombardo, M. 1999. Comparative Performance Measurement: Insights and Lessons Learned from a Consortium Effort. *Public Administration Review*, 59(2): 124-134.
- Kopecký, P. & Scherlis, G. 2008. Party Patronage in Contemporary Europe. *European Review*, 16(3): 355-371.
- Kriesi, H., Koopmans, R., Duyvendak, J. W., & Giugni, M. 1995. *New Social Movements in Western Europe: A Comparative Analysis*. Minneapolis-London: University of Minnesota Press-UCL Press.
- Kunicová, J. & Rose-Ackerman, S. 2005. Electoral Rules and Constitutional Structures as Constraints on Corruption. *British Journal of Political Science*, 35(4): 573-606.
- Kurtz, M. J. & Schrank, A. 2007. Growth and Governance: Models, Measures, and Mechanisms. *Journal of Politics*, 69(2): 538-554.
- Kuyumdzhieva, A., Dell, G., & Földes, Á. 2015. Prevention Measures for Public Officials, *Integrity of Public Officials in EU Countries*: 10-35: Transparency International.
- Kuznets, S. 1955. Economic Growth and Income Inequality. *The American Economic Review*, 45(1): 1-28.
- Kwon, I. 2014. Motivation, Discretion, and Corruption. *Journal of Public Administration Research and Theory: J-PART*, 24(3): 765-794.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. 1999. The quality of government. *Journal of Law, Economics and Organizations; NBER Working Paper Series*, 15(1): 222-279.
- Labelle, H. 2013. Preface, *Global Corruption Report: Education*: xiii-xiv. London & New York: Transparency International.
- Laegreid, P. & Rykkja, L. H. 2014. Governance for complexity: How to organize for the handling of 'wicked issues'? *Stein Rokkan Centre for Social Studies*, Working Paper: 1-28.
- Lambsdorff, J. G. 2001a. Framework document. Background paper to the 2001 Corruption Perceptions Index: 11: Transparency International (TI) and Göttingen University.

- Lambsdorff, J. G. 2001b. How corruption in government affects public welfare – A review of theories: 43. Göttingen: Center for Globalization and Europeanization of the Economy.
- Lambsdorff, J. G. 2006. Consequences and Causes of Corruption—What Do We Know From a Cross-Section of Countries? In S. Rose-Ackerman & H. R. Luce (Eds.), *International Handbook on the Economics of Corruption*: 3-52. Cheltenham, UK; Northampton, MA, USA: Edward Elgar Publishing Limited (UK); Edward Elgar Publishing, Inc. (USA).
- Lambsdorff, J. G. & Schulze, G. G. 2015. *Guest Editorial: Special Issue on Corruption at the Grassroots-level - What Can We Know About Corruption? A Very Short History of Corruption Research and a List of What We Should Aim For. Jahrbücher für Nationalökonomie und Statistik*, 235(2): 15.
- Lasthuizen, K., Huberts, L., & Heres, L. 2011. How to Measure Integrity Violations. *Public Management Review*, 13(3): 383-408.
- Lee, W.-S. & Guven, C. 2013. Engaging in corruption: The influence of cultural values and contagion effects at the microlevel. *Journal of Economic Psychology*, 39: 287-300.
- Leff, N. H. 1964. Economic Development Through Bureaucratic Corruption. *American Behavioral Scientist*, 8(3): 8-14.
- Leite, C. A. & Weidmann, J. 1999. Does Mother Nature Corrupt? Natural Resources, Corruption, and Economic Growth. *Natural Resources, Corruption, and Economic Growth*, 99(85): 34.
- Leotta, G. 2017. Introduzione generale al fenomeno. In C. Editore (Ed.), *Riflessioni in tema di lotta alla corruzione*. Bologna.
- Letki, N. 2006. Investigating the roots of civic morality: Trust, social capital, and institutional performance. *Political Behavior*, 28(4): 305-325.
- Levine, C. H. 1978. Organizational Decline and Cutback Management. *Public Administration Review*, 38(4): 316-325.
- Levine, C. H. 1985. Police Management in the 1980s: From Decrementalism to Strategic Thinking. *Public Administration Review*, 45: 691-700.
- Lind, E. A. & Tyler, T. R. 1988. *The Social Psychology of Procedural Justice*. New York: Springer Science & Business Media, LLC.
- Liu, C., Moldogaziev, T. T., & Mikesell, J. L. 2017. Corruption and State and Local Government Debt Expansion. *Public Administration Review*, 77(5): 681-690.
- Löffler, E. 2003. Governance and government: Networking with external stakeholders. In T. Bovaird & E. Löffler (Eds.), *Public Management and Governance*: 163-174. London and New York: Routledge, Taylor & Francis Group.
- Löffler, E. 2009. Public governance in a network society. In T. Bovaird & E. Löffler (Eds.), *Public Management and Governance*, Second ed.: 215-232. USA and Canada: Routledge.
- Lozovsky, I. 2015. *The Spirit of Lviv. How Ukraine's most European city forged a popular movement against corruption and bad governance*. London, UK: Democracy Lab and Legatum Institute.
- Luna-Reyes, L. F. & Andersen, D. L. 2003. Collecting and analyzing qualitative data for system dynamics: methods and models. *System Dynamics Review (Wiley)*, 19(4): 271-296.
- Lusuli, A. L. & Rotich, G. 2014. Challenges affecting public procurement records management practice in public entities in Kenya: a case of the National Treasury. *International Journal of Social Sciences and Entrepreneurship*, 1(10): 120–144.
- Lynn, L. E., Heinrich, C. J., & Hill, C. J. 2001. *Improving governance: A new logic for empirical research*. Washington, DC: Georgetown University Press.
- Maciariello, J. 1980. Introduction to Management Control Systems. In J. Maciariello & C. Kirby (Eds.), *Management Control Systems. Using Adaptive Systems to Attain Control*, First ed.: 1-33. New Jersey: Prentice-Hall.
- Madnick, S. & Siegel, M. 2008. A System Dynamics (SD) Approach to Modeling and Understanding Terrorist Networks. In A. F. M. C. Department of the Air Force, AFRL - Rome Research Site, AFRL/Information Directorate (Ed.). Cambridge: Massachusetts Institute of Technology.
- March, J. G. & Olsen, J. P. 1989. *Rediscovering institutions: The organizational basis of politics*. New York: Free Press.

- Marquette, H. & Peiffer, C. 2015. Corruption and Collective Action. *Developmental Leadership Program (DLP) - University of Birmingham, UK*(RP 32).
- Masters, A. B. & Graycar, A. 2016. Making Corruption Disappear in Local Government. *Public Integrity*, 18(1): 42-58.
- Mauro, P. 1995. Corruption and Growth. *The Quarterly Journal of Economics*, 110(3): 681-712.
- Mauro, P. 1997. The Effects of Corruption on Growth, Investment, and Government Expenditure: A Cross-Country Analysis. In K. A. Elliott (Ed.), *Corruption in the Global Economy*: 256. Washington, DC: Washington: Institute for International Economics.
- McCarthy, M. T. 2015. Toward a free information movement. *Sociological Forum*, 30(2): 439-458.
- McDevitt, A. 2011. Gateway: Corruption Assessment Toolbox. Corruption Risk Assessment Topic Guide: 6: Transparency International.
- McDevitt, A. 2012. Gateway: Mapping the Corruption Assessment Landscape: 30: Transparency International.
- McDevitt, A. 2014. *Local Integrity System Assessment Toolkit*. Berlin, Germany: Transparency International.
- McMillan, J. 1991. Dango: Japan's Price-Fixing Conspiracies. *Economics & Politics*, 3(3): 201-218.
- Meagher, P. 2005. Anti-corruption agencies: Rhetoric Versus reality. *The Journal of Policy Reform*, 8(1): 69-103.
- Meier, K. J. 1997. Bureaucracy and Democracy: The Case for More Bureaucracy and Less Democracy. *Public Administration Review*, 57(3): 193-199.
- Mensah, Y. M. 2014. *An analysis of the effect of culture and religion on perceived corruption in a global context*. *Journal of Business Ethics*, 121(2): 255–282.
- Merchant, K. A. 1990. The effects of financial controls on data manipulation and management myopia. *Accounting, Organizations and Society*, 15(4): 297-313.
- Merton, R. K. 1949. *Social Theory and Social Structure* (Enlarged ed.). New York: The Free Press.
- Metcalfe, L. & Richards, S. 1991. *Improving Public Management (European Institute of Public Administration)* (Enlarged edition ed.). London: SAGE Publications Ltd.
- Meyer-Sahling, J.-H., Mikkelsen, K. S., & Schuster, C. 2018. Civil service management and corruption: What we know and what we don't. *Public Administration*, 96(2): 276-285.
- Minkova, M. 2018. Guide To Corruption-Free Local Government. Practical ways to design and implement corruption prevention at local levels: United Nations Development Programme.
- Mitchell, R. K., Agle, B. R., & Wood, D. J. 1997. Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts. *The Academy of Management Review*, 22(4): 853-886.
- Mitnick, B. 1975. The theory of agency: The policing 'paradox' and regulatory behavior. *Public Choice, Springer*, 24(1): 27-42.
- Moe, T. M. 1984. The New Economics of Organization. *American Journal of Political Science*, 28(4): 739-777.
- Monteduro, F., Brunelli, S., & Buratti, A. 2013. La corruzione - Definizione, misurazione e impatti economici [Corruption - Definition, measurement and economic impacts]: 128. Formez PA: Ministry of Economic Development, Department of Public Service.
- Montinola, G. & Jackman, R. 2002. Sources of Corruption: A Cross-Country Study. British Journal of Political Science. *Cambridge University Press*, 32(1): 147-170.
- Moore, M. & Hartley, J. 2010. Innovations in Governance. In S. P. Osborne (Ed.), *The New Public Governance? Emerging Perspectives on the Theory and Practice of Public Governance*: 52-71. USA & Canada: Routledge, Taylor & Francis e-Library.
- Morgan, D. R. & Watson, S. S. 1992. Policy Leadership in Council-Manager Cities: Comparing Mayor and Manager. *Public Administration Review*, 52(5): 438-446.
- Morrell, J. & Bettcher, K. E. 2013. Approaches to Collective Action: How Business Together Can Lead the Fight Against Corruption, *Economic Reform Feature Service*. Washington, D.C.: Center for International Private Enterprise (CIPE).

- Morris, S. 2011. *Forms of Corruption. CESifo DICE Report*, 2: 6 p.
- Morris, T. & Wood, S. 1991. Testing the Survey Method: Continuity and Change in British Industrial Relations. *Work, Employment and Society*, 5(2): 259-282.
- Mungiu-Pippidi, A., Loncaric, M., Vaz Mundo, B., Sponza Braga, A. C., Weinhardt, M., Pulido Solares, A., Skardziute, A., Martini, M., Agbele, F., Frisk Jensen, M., von Soest, C., & Gbedava, M. 2011. Contextual Choices in Fighting Corruption: Lessons Learned - Report 4/2011. Ruseløkkveien, Norway: Norwegian Agency for Development Cooperation (NORAD).
- Mungiu-Pippidi, A. 2015. *The Quest for Good Governance: How Societies Develop Control of Corruption*. Cambridge: Cambridge University Press.
- Murphy, K. 2004. The Role of Trust in Nurturing Compliance: A Study of Accused Tax Avoiders. *Law and Human Behavior*, 28(2): 187-209.
- Mussari, R. 2011. *Economia delle amministrazioni pubbliche [Economics of public institutions]*. Milano: McGraw-Hill.
- Nabatchi, T., Steen, T., Sicilia, M., & Brand, D. 2016. Understanding the Diversity of Coproduction: Introduction to the IJPA Special Issue. *International Journal of Public Administration*, 39(13): 1001-1005.
- Nabatchi, T., Sancino, A., & Sicilia, M. 2017. Varieties of Participation in Public Services: The Who, When, and What of Coproduction. *Public Administration Review*, 77(5): 766-776.
- Nelson, K. L. & Afonso, W. B. 2019. Ethics by Design: The Impact of Form of Government on Municipal Corruption. *Public Administration Review*, 79(4): 591-600.
- Neshkova, M. I. & Kalesnikaite, V. 2019. Corruption and citizen participation in local government: Evidence from Latin America. *Governance*, 32(4): 677-693.
- Neupane, A., Soar, J., & Vaidya, K. 2014. An empirical evaluation of the potential of public e-procurement to reduce corruption. *Australasian Journal of Information Systems*, 18(2): 21-44.
- Newman, J., Barnes, M., Sullivan, H., & Knops, A. 2004. Public participation and collaborative governance. *Journal of Social Policy*, 33(2): 203-223.
- Ntayi, J. M., Ngoboka, P., & Kakooza, C. S. 2013. Moral Schemas and Corruption in Ugandan Public Procurement. *Journal of Business Ethics*, 112(3): 417-436.
- Nye, J. S. 1967. *Corruption and political development. American Political Science Review*, 61(2): pp. 417-427.
- Odeku, K. O. 2018. Endemic corruption in supply chain and procurement in the local sphere of government in South Africa. *Journal of Distribution Science*, 16(9): 43-52.
- OECD. 1997. OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions: 50. Paris, France: OECD.
- OECD. 2005. Modernizing government: The Way Forward. Paris, France: OECD.
- OECD. 2014. *OECD Foreign Bribery Report: An Analysis of the Crime of Bribery of Foreign Public Officials*. Paris: OECD Publishing.
- OECD. 2016. Preventing Corruption in Public Procurement: 32. Paris, France: OECD.
- OECD. 2019. *Government at a Glance 2019*. Paris: OECD Publishing.
- OECD; Engaging Youth in the Fight against Corruption; <https://www.oecd.org/corruption/ethics/youth-anti-corruption-campaign.htm>; September 23, 2020.
- Offe, C. 2009. Governance: An “Empty Signifier”? *Constellations*, 16(4): 550-562.
- Olaya Garcia, J. 2013. *Integrity Pacts in Public Procurement: An Implementation Guide*. Berlin, Germany: Water Integrity Network (WIN) and Transparency International (TI).
- Olken, B. A. 2006. Corruption and the costs of redistribution: Micro evidence from Indonesia. *Journal of Public Economics*, 90(4): 853-870.
- Olken, B. A. 2007. Monitoring Corruption: Evidence from a Field Experiment in Indonesia. *Journal of Political Economy*, 115(2): 200-249.
- Olken, B. A. 2009. Corruption perceptions vs. corruption reality. *Journal of Public Economics*, 93(7): 950-964.

- Olson, M. 1971. *The Logic of Collective Action: Public Goods and the Theory of Groups* (Revised ed.): Harvard University Press.
- Osborne, S. P. & Kaposvari, A. 1997. Towards a Civil Society? Exploring Its Meanings in the Context of Post-Communist Hungary. *Journal of European Social Policy*, 7(3): 209-222.
- Osborne, S. P. & Brown, K. 2005. *Managing Change and Innovation in Public Service Organizations* (First ed.). London, UK; New York, NY: Routledge.
- Osborne, S. P. 2006. The New Public Governance? *Public Management Review*, 8(3): 377-387.
- Osborne, S. P. 2010. The (New) Public Governance: a suitable case for treatment? In S. P. Osborne (Ed.), *The New Public Governance? Emerging Perspectives on the Theory and Practice of Public Governance*: 1-16. USA & Canada: Routledge, Taylor & Francis e-Library.
- Osborne, S. P., Radnor, Z., & Nasi, G. 2012. A New Theory for Public Service Management? Toward a (Public) Service-Dominant Approach. *The American Review of Public Administration*, 43(2): 135-158.
- Osborne, S. P., Radnor, Z., & Strokosch, K. 2016. Co-Production and the Co-Creation of Value in Public Services: A suitable case for treatment? *Public Management Review*, 18(5): 639-653.
- Osborne, S. P. 2018. From public service-dominant logic to public service logic: are public service organizations capable of co-production and value co-creation? *Public Management Review*, 20(2): 225-231.
- Osei-Tutu, E., Badu, E., & Owusu-Manu, D. 2010. Exploring corruption practices in public procurement of infrastructural projects in Ghana. *International Journal of Managing Projects in Business*, 3(2): 236-256.
- Ostrom, E. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York, NY: Cambridge University Press.
- Ostrom, E., Walker, J., & Gardner, R. 1992. Covenants with and without a Sword: Self-Governance Is Possible. *American Political Science Review*, 86(2): 404-417.
- Ostrom, E. 2000. Collective Action and the Evolution of Social Norms. *Journal of Economic Perspectives*, 14(3): 137-158.
- Ostrom, E. 2006. *Understanding Institutional Diversity*. Princeton, NJ: Princeton University Press.
- Ottou, J. A., Baiden, B. K., & Nani, G. 2019. Gaps in public procurement records management. *International Journal of Procurement Management*, 12(5): 493-517.
- Oxford English Dictionary. 2012a. Corrupt. In M. Waite (Ed.), Seventh ed.: 156. UK: Oxford University Press.
- Oxford English Dictionary. 2012b. State. In M. Waite (Ed.), Seventh ed.: 712. UK: Oxford University Press.
- Oxford English Dictionary. 2012c. Dynamics. In M. Waite (Ed.), Seventh ed.: 221. UK: Oxford University Press.
- Oxford English Dictionary. 2012d. System. In M. Waite (Ed.), Seventh ed.: 740. UK: Oxford University Press.
- Oxford English Dictionary. 2012e. Patronage. In M. Waite (Ed.), Seventh ed.: 526. UK: Oxford University Press.
- Paldam, M. 2002. The cross-country pattern of corruption: economics, culture and the seesaw dynamics. *European Journal of Political Economy*, 18(2): 215-240.
- Panda, B. & Lepsa, N. M. 2017. Agency theory: Review of Theory and Evidence on Problems and Perspectives. *Indian Journal of Corporate Governance (SAGE Publications)*, 10(1): 74-95.
- Pandey, S. K. 2010. Cutback Management and the Paradox of Publicness. *Public Administration Review*, 70(4): 564-571.
- Pederson, E. R. 2006. Making Corporate Social Responsibility (CSR) Operable: How Companies Translate Stakeholder Dialogue into Practice. *Business and Society Review*, 111(2): 137-163.
- Pepper, A. & Gore, J. 2012. Behavioral agency theory new foundations for theorizing about executive compensation. *Journal of Management*, 41(4): 1045-1068.
- Perrow, C. 1986. *Complex organizations*. New York, NY: Random House.

- Perry, J. L. 2010. Introduction to the Symposium on Public Service Motivation Research. *Public Administration Review*, 70(5): 679-680.
- Persson, A., Rothstein, B., & Teorell, J. 2013. Why Anticorruption Reforms Fail—Systemic Corruption as a Collective Action Problem. *Governance*, 26(3): 449-471.
- Persson, T., Tabellini, G., & Trebbi, F. 2003. Electoral rules and corruption. *Journal of the European Economic Association*, 1(4): 958-989.
- Pestoff, V. 2012. Co-Production and Third Sector Social Services in Europe: Some Crucial Conceptual Issues. In V. Pestoff, T. Brandsen, & B. Verschuere (Eds.), *New Public Governance, the Third Sector and Co-Production*, First ed.: 13-34. New York and London: Routledge. Taylor & Francis Group.
- Peters, B. G. & Pierre, J. 2004. *Politicization of the Civil Service in Comparative Perspective. The Quest for Control*. London: Routledge.
- Peters, B. G. 2010. Meta-Governance and Public Management. In S. P. Osborne (Ed.), *The New Public Governance? Emerging Perspectives on the Theory and Practice of Public Governance*: 36-51. USA & Canada: Routledge, Taylor & Francis e-Library.
- Peters, B. G. 2015. *Pursuing horizontal management: The politics of public sector coordination*. Lawrence, Kansas: University Press of Kansas.
- Pfeffer, J. & Sutton, R. I. 2006. Evidence-based management. *Harvard Business Review*, 84(1): 62-74+133.
- Philp, M. 1997. Defining Political Corruption. *Political Studies*, 45(3): 436-462.
- Pina, V., Torres, L., & Royo, S. 2007. Are ICTs Improving Transparency and Accountability in the EU Regional and Local Governments? An empirical study. *Public Administration*, 85(2): 449-472.
- Pizzorno, A. 1992a. Lo scambio occulto. *Stato e mercato*, 34(1): 3-34.
- Pizzorno, A. 1992b. La corruzione nel sistema politico. In D. della Porta (Ed.), *Lo scambio occulto*: 13-74. Bologna: Il Mulino.
- Pollitt, C. 1990. *Managerialism and the public services : the Anglo-American experience / Christopher Pollitt*. Cambridge, Mass., USA: Basil Blackwell.
- Ponzano, F. & Ottone, S. 2019. Prosociality and fiscal honesty: Tax evasion in Italy, United Kingdom, and Sweden: 289-318: Elsevier.
- Poocharoen, O. 2014. Collaboration in Anti-Corruption Work: Who to Work with and How? *Lee Kuan Yew School of Public Policy National University of Singapore*, Working Paper Series(LKYSPP 14-12).
- Pope, J. 2000. *Confronting Corruption: The Elements of a National Integrity System*. Berlin, Germany: Transparency International.
- Porumbescu, G. A., Lindeman, M. I. H., Ceka, E., & Cucciniello, M. 2017. Can Transparency Foster More Understanding and Compliant Citizens? *Public Administration Review*, 77(6): 840-850.
- Power, M. 2007. *Organized Uncertainty: Designing A World of Risk Management*: Oxford University Press.
- Pozsgai-Alvarez, J. 2019. The Abuse of Entrusted Power for Private Gain: Meaning, Nature and Theoretical Evolution. *Japan-ASEAN Transdisciplinary Studies Working Paper Series (TDWPS)*, 5: 1-25.
- Pring, C. 2017. People and Corruption: Citizens' Voices from Around the World. Global Corruption Barometer: 3: Transparency International.
- Prosperi, S. 2003. *Il governo economico della crisi aziendale [Economic administration of firm crisis]*. Milano: Giuffrè.
- Prosperi, S. 2006. L'insolvenza e la crisi aziendale: aspetti introduttivi [Insolvency and firm crisis: introductory aspects]. In F. Poddighe & S. Madonna (Eds.), *I modelli di previsione delle crisi aziendali: possibilità e limiti*: 5-54. Milano: Giuffrè.
- Public Official #1. 2019. Non-standardized, face-to-face convergent in-depth interview with Public Official #1 [In Italian]. Held: June 26, 2019. In S. Gnoffo (Ed.), *Ph. D. research*.
- Public Official #2. 2019. Non-standardized, face-to-face convergent in-depth interview with Public Official #2 [In Italian]. Held: June 26, 2019. In S. Gnoffo (Ed.), *Ph. D. research*.

- Public Official #3. 2019. Non-standardized, face-to-face convergent in-depth interview with Public Official #3 [In Italian]. Held: June 26, 2019. In S. Gnoffo (Ed.), *Ph. D. research*.
- Public Official #4. 2019. Non-standardized, face-to-face convergent in-depth interview with Public Official #4 [In Italian]. Held: June 26, 2019. In S. Gnoffo (Ed.), *Ph. D. research*.
- Public Official #5. 2019. Non-standardized, face-to-face convergent in-depth interview with Public Official #5 [In Italian]. Held: July 12, 2019. In S. Gnoffo (Ed.), *Ph. D. research*.
- Pyman, M., Hristova, D., & Doig, A. 2018. Sub-National Government review: 59: Curbing Corruption.
- Rabl, T. & Kühlmann, T. M. 2008. Understanding Corruption in Organizations – Development and Empirical Assessment of an Action Model. *Journal of Business Ethics*, 82(2): 477.
- Radnor, Z., Osborne, S. P., Kinder, T., & Mutton, J. 2014. Operationalizing Co-Production in Public Services Delivery: The contribution of service blueprinting. *Public Management Review*, 16(3): 402-423.
- Raudla, R., Savi, R., & Randma-Liiv, T. 2013. COCOPS. Literature Review on Cutback Management, vol. COCOPS WORKPACKAGE 7 DELIVERABLE 1: 52. Europe: European Research Area (European Commission).
- Razafindrakoto, M. & Roubaud, F. 2010. Are International Databases on Corruption Reliable? A Comparison of Expert Opinion Surveys and Household Surveys in Sub-Saharan Africa. *World Development*, 38(8): 1057-1069.
- Reinikka, R. & Svensson, J. 2004. Local Capture: Evidence from a Central Government Transfer Program in Uganda*. *The Quarterly Journal of Economics*, 119(2): 679-705.
- Reinikka, R. & Svensson, J. 2005. Fighting Corruption to Improve Schooling: Evidence from a Newspaper Campaign in Uganda. *Journal of the European Economic Association*, 3(2-3): 259-267.
- Rhodes, R. 1997. *Understanding Governance*. Buckingham: Open University Press.
- Ribeiro, H. V., Alves, L. G. A., Martins, A. F., Lenzi, E. K., & Perc, M. 2018. The dynamical structure of political corruption networks. *Journal of Complex Networks*, 6(6): 989-1003.
- Roberts, N. 2001. Coping with wicked problems: The case of Afghanistan. In J. Lawrence, G. James, & S. Peter (Eds.), *Learning from International Public Management Reform: Part B*, vol. 11 Part 2: 353-375: Emerald Group Publishing Limited.
- Robinson, M. 2006. Foreword. In J. a. R. Kotalik, D. (Ed.), *Global Corruption Report 2006*: xiv-xv. London: Pluto Press.
- Robson, C. 2002. *Real World Research: A Resource for Social Scientists and Practitioner-Researchers (2nd ed.)*. (Second ed.): Oxford: Blackwell Publishers Ltd.
- Roniger, L. 2004. Political Clientelism, Democracy, and Market Economy. *Comparative Politics*, 36(3): 353-375.
- Rose-Ackerman, S. 1975. The economics of corruption. *Journal of Public Economics*, 4(2): 187-203.
- Rose-Ackerman, S. 1999. *Corruption and Government: Causes, Consequences, and Reform*. Cambridge: Cambridge University Press.
- Rose-Ackerman, S. 2006. *International Handbook on the Economics of Corruption*. Cheltenham, UK; Northampton, MA, USA: Edward Elgar Publishing Limited (UK); Edward Elgar Publishing, Inc. (USA).
- Rose-Ackerman, S. & Søreide, T. 2011. *International Handbook on the Economics of Corruption*. Cheltenham, UK; Northampton, MA, USA: Edward Elgar Publishing Limited (UK); Edward Elgar Publishing, Inc. (USA).
- Ross, S. A. 1973. The Economic Theory of Agency: The Principal's Problem. *American Economic Review*, 63(2): 134-139.
- Rothstein, B. 2011a. Anti-corruption: the indirect 'big bang' approach. *Review of International Political Economy*, 18(2): 228-250.
- Rothstein, B. 2011b. *The Quality of Government: Corruption, Social Trust, and Inequality in International Perspective*. Chicago: The University of Chicago Press.
- Rothstein, B. & Varraich, A. 2017. *Making Sense of Corruption*. Cambridge: Cambridge University Press.

- Sachs, J. D. & Warner, A. M. 1997. Sources of Slow Growth in African Economies1. *Journal of African Economies*, 6(3): 335-376.
- Saha, S., Gounder, R., & Su, J.-J. 2009. The interaction effect of economic freedom and democracy on corruption: A panel cross-country analysis. *Economics Letters*, 105(2): 173-176.
- Salamon, L. M. & Anheier, H. K. 1997. *Defining the Nonprofit Sector: A Cross-national Analysis*. Manchester, UK: Manchester University Press.
- Sampson, S. 2015. The anti-corruption package. *Ephemera. Theory & Politics in Organization*, 15(2): 435-443.
- Samuel, A. 2009. Preemptive collusion among corruptible law enforcers. *Journal of Economic Behavior and Organization*, 71(2): 441-450.
- Sancino, A. & Jacklin-Jarvis, C. 2016. Co-Production and Inter-Organizational Collaboration in the Provision of Public Services: A Critical Discussion. In M. G. Fugini, E. Bracci, & M. Sicilia (Eds.), *Coproduction of Services in the Public Sector: Experiences and Challenges*: 3-27. Milan: Springer.
- Sargiacomo, M., Ianni, L., D'Andreamatteo, A., & Servalli, S. 2015. Accounting and the fight against corruption in Italian government procurement: A longitudinal critical analysis (1992-2014). *Critical Perspectives on Accounting*, 28: 89-96.
- Saunders, M. N. K., Lewis, P., & Thornhill, A. 2019. *Research Methods for Business Students* (Eighth ed.). London: Pearson Education Ltd.
- Savedoff, W. D. & Hussmann, K. 2006. Why are health systems prone to corruption? In J. Kotalik & D. Rodriguez (Eds.), *Global Corruption Report 2006*: 4-16. London: Pluto Press.
- Schumpeter, J. A. 1942. *Capitalism, socialism, and democracy*. New York, London,: Harper & Brothers.
- Schütte, S. A. 2020. Networks of anticorruption authorities: Living up to their aspirations?, *U4 Brief - Anti-corruption agencies. Justice sector*. Bergen, Norway: CMI - U4 Anti-Corruption Resource Centre.
- Schwartz, S. H. 1999. A Theory of Cultural Values and Some Implications for Work. 48(1): 23-47.
- Schweiger, S., Stouten, H., & Bleijenbergh, I. 2018. A System Dynamics Model of Resistance to Organizational Change: The Role of Participatory Strategies. *Systems Research & Behavioral Science*, 35(6): 658-674.
- Seabright, P. 1993. Managing local commons: Theoretical issues in incentive design. *Journal of Economic Perspectives*, 7(4): 113-134.
- Seal, W. & Vincent-Jones, P. 1997. Accounting and trust in the enabling of long-term relations. *Accounting, Auditing & Accountability Journal*, 10(3): 406-431.
- Seidman, H. 1941. *Investigating municipal administration; a study of the New York City Department of Investigation*. Columbia University Institute of Public Administration, New York.
- Seligson, M. A. 2006. The Measurement and Impact of Corruption Victimization: Survey Evidence from Latin America. *World Development*, 34(2): 381-404.
- Senge, P. M. 1990. *The Fifth Discipline: The Art & Practice of the Learning Organization*. New York: Currency Doubleday.
- Sequeira, S. 2012. Chapter 6 Advances in Measuring Corruption in the Field. In L. W. Danila Serra (Ed.), *New Advances in Experimental Research on Corruption. Research in Experimental Economics*, vol. 15: 145-175: Emerald Group Publishing Limited.
- Sharma, S. K., Sengupta, A., & Panja, S. C. 2019. Mapping Corruption Risks in Public Procurement: Uncovering Improvement Opportunities and Strengthening Controls. *Public Performance and Management Review*, 42(4): 947-975.
- Shick, R. & Weikart, L. A. 2009. Public Organizations Undergoing Change: A Study in Urban Contracting. *Public Administration Quarterly*, 33(1): 71-117.
- Shleifer, A. & Vishny, R. W. 1993. *Corruption. The Quarterly Journal of Economics. Oxford University Press*: 599-617.
- Siddiquee, N. A. 2005. Public accountability in malaysia: Challenges and critical concerns. *International Journal of Public Administration*, 28(1-2): 107-129.
- Simey, M. 1988. *Democracy Rediscovered: A Study in Police Accountability*. London: Pluto Press.

- Simon, H. A. 1947. *Administrative Behavior: a Study of Decision-Making Processes in Administrative Organization*. New York, NY: Macmillan.
- Simons, R. 2007a. Diagnostic Control Systems: Implementing Intended Strategies. In R. Simons (Ed.), *Levers of Control: How Managers Use Innovative Control Systems to Drive Strategic Renewal*. Boston, Massachusetts: Harvard Business School Press.
- Simons, R. 2007b. Interactive Control Systems: Adapting to Competitive Environments. In R. Simons (Ed.), *Levers of Control: How Managers Use Innovative Control Systems to Drive Strategic Renewal*. Boston, Massachusetts: Harvard Business School Press.
- SIOPE; Sistema Informativo delle Operazioni degli Enti Pubblici [Informative System of the Operations of Public Bodies]; <https://www.siope.it/Siope/>; November 5, 2020.
- Sole Auditor of Cerda Municipality. 2017, February. Relazione dell'organo di revisione economico finanziaria sull'eventuale stato di dissesto finanziario [Report of the financial auditing body on the possible state of financial distress]. Municipality of Cerda.
- Sorauf, F. J. 1956. State Patronage in a Rural County. *The American Political Science Review*, 50(4): 1046-1056.
- Sorauf, F. J. 1960. The Silent Revolution in Patronage. *Public Administration Review*, 20(1): 28-34.
- Sorci, C. 2014. Crisi d'impresa e strategie di superamento [Business crisis and overcoming strategies]. In C. Sorci (Ed.), *Lezioni di economia aziendale*, 2 ed.: 461-483. Milano: Giuffrè Editore.
- Søreide, T. 2002. Corruption in public procurement. Causes, consequences and cures, *CMI Reports*, vol. 1. Bergen, Norway: Chr. Michelsen Institute.
- Søreide, T. & Truex, R. 2011. Collaboration against corruption? Multistakeholder groups in natural resource management: 29. Bergen, Norway: CMI - U4 Anti-Corruption Resource Centre.
- Stamatelatos, M. 2000. Probabilistic Risk Assessment (PRA). In NASA (Ed.), vol. 00-002: Office of Safety and Mission Assurance (OSMA), NASA Headquarters.
- Sterman, J. 2000. *Business dynamics. Systems thinking and modeling for a complex world*. Boston: Irwin/McGraw-Hill.
- Sterman, J. D. 2002. All models are wrong: reflections on becoming a systems scientist. *System Dynamics Review*, 18(4): 501-531.
- Stewart, J. 2012. *Calculus: Early Transcendentals, Seventh Edition* (Seventh ed.): Brooks/Cole Pub Co.
- Stillman, R. J. 1977. The City Manager: Professional Helping Hand, or Political Hired Hand? *Public Administration Review*, 37(6): 659-670.
- Strombom, D. 1998. Corruption in Procurement. *Economic Perspectives*, 3(5).
- Sung, H. E. & Chu, D. 2003. Does Participation in the Global Economy Reduce Political Corruption?: An Empirical Inquiry. *International Journal of Comparative Criminology*, 3(2): 94-118.
- Sung, H. E. 2004. Democracy and political corruption: A cross-national comparison. *Crime, Law and Social Change*, 41(2): 179-194.
- Sung, J. 2005. Optimal Contracts Under Adverse Selection and Moral Hazard: A Continuous-Time Approach. *The Review of Financial Studies*, 18(3): 1021-1073.
- Swamy, A., Knack, S., Lee, Y., & Azfar, O. 2001. Gender and corruption. *Journal of Development Economics*, 64(1): 25-55.
- Tabellini, G. 2000. Constitutional Determinants of Government Spending, *CESifo Working Paper Series*.
- Tabish, S. Z. S. & Jha, K. N. 2012. The impact of anti-corruption strategies on corruption free performance in public construction projects. *Construction Management and Economics*, 30(1): 21-35.
- Tanzi, V. & Davoodi, H. 1997. Corruption, Public Investment, and Growth. *IMF Working Paper 97/139* (Washington: International Monetary Fund).
- Tanzi, V. 1998a. Corruption and the budget: Problems and solutions. In K. A. Jain (Ed.), *Economics of corruption*. London, UK: Kluwer Academic Publishers.
- Tanzi, V. 1998b. Corruption Around the World: Causes, Consequences, Scope, and Cures. *IMF Staff Papers*, 45(4): 559-594.
- Tanzi, V. & Davoodi, H. 1998. Roads to Nowhere: How Corruption in Public Investment Hurts Growth, *Economic Issues*, vol. 12. Washington, DC: International Monetary Fund.

- Tarrow, S. 1989. *Democracy and Disorder. Protest and Politics in Italy, 1965-1975*. Oxford/New York: Oxford University Press.
- Tashakkori, A. & Teddlie, C. 2003. *Handbook of Mixed Methods in Social and Behavioral Research* (First ed.). Thousand Oaks, California: SAGE.
- Tedeschi Toschi, A. 1993. *Crisi d'impresa tra sistema e management. Per un approccio allo studio delle crisi aziendali [Business crisis between system and management. For an approach to the study of firm crises]*. Milano: EGEA.
- Temin, P. 1997. Is it Kosher to Talk about Culture? *The Journal of Economic History*, 57(2): 267-287.
- Tenuta, P. 2015. *Dissesto e predissesto finanziario negli enti locali. Analisi e confronti in un'ottica economico-aziendale [Financial distress and pre-failure in local authorities. Analysis and comparisons from a public administration perspective]*. Milano: FrancoAngeli.
- Teorell, J. 2007. Corruption as an Institution: Rethinking the Nature and Origins of the Grabbing Hand. *Working Paper Series 2007/5*, Go`teborg: The Quality of Government Institute. Go`teborg University.
- Terry, L. D. 1998. Administrative Leadership, Neo-Managerialism, and the Public Management Movement. *Public Administration Review*, 58(3): 194-200.
- The European Parliament & The Council of the European Union. 2014. Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC. In The European Parliament and the Council of the European Union (Ed.), **24**, vol. 94: 65-242. Bruxelles: Official Journal of the European Union.
- The State of the Italian Republic. 2012. La corruzione in Italia. Per una politica di prevenzione, Rapporto della Commissione per lo studio e l'elaborazione di proposte in tema di trasparenza e prevenzione della corruzione nella pubblica amministrazione: 1-436. Rome, Italy.
- Thomas, M. A. 2010. *What Do the Worldwide Governance Indicators Measure?*
- Transparency International; What is corruption?; <https://www.transparency.org/en/what-is-corruption>; September 2, 2020.
- Transparency International. 2020b. Corruption Perceptions Index 2020: Transparency International.
- Transparency International Italia. 2017. *Agenda Anticorruzione 2017*: Transparency International Italia.
- Treisman, D. 2000. The causes of corruption: A cross-national study. *Journal of Public Economics*, 76(3): 399-457.
- Treisman, D., Bannerjee, S., Bloom, S., Rushakov, A., Keat, P., Cox, G., Frye, T., Kraay, A., Geddes, B., Keen, M., Kiser, E., Rose-Ackerman, S., Camoes, P., Przeworski, A., Rosenthal, J.-L., Brinegar, A., & Assistance I Thank, R. 2002. Decentralization and the Quality of Government. 48.
- Treisman, D. 2007. What Have we Learned About the Causes of Corruption from Ten Years of Cross-National Empirical Research? . *Annual Review of Political Science*, 10: 211-244.
- Trussel, J. & Patrick, P. 2012. A Survival Analysis of U.S. Municipalities in Fiscal Distress. *International Journal of Public Administration*, 35(9): 620-633.
- Turner, S., Merchant, K., Kania, J., & Martin, E.; Understanding the Value of Backbone Organizations in Collective Impact: Part 2. An in-depth review of what it takes to be a backbone organization, and how to evaluate and support its work; https://ssir.org/articles/entry/understanding_the_value_of_backbone_organizations_in_collective_impact_2; September 15, 2020.
- Tyler, T. R. 2006. Psychological Perspectives on Legitimacy and Legitimation. *Annual Review of Psychology*, 57(1): 375-400.
- UNESCO; Good governance; http://portal.unesco.org/ci/en/ev.php-URL_ID=5205&URL_DO=DO_TOPIC&URL_SECTION=201.html; August 25, 2020.
- United Nations. 2004a. United Nations Convention Against Transnational Organized Crime and the Protocols Thereto. In U. Nations (Ed.), vol. 55/25, 55/255. New York: United Nations Office on Drugs and Crime, Vienna.
- United Nations. 2004b. United Nations Convention Against Corruption. In U. Nations (Ed.): 65. New York: United Nations Office on Drugs and Crime, Vienna.

- United Nations Global Compact. 2010. Collective Action in the Fight Against Corruption. In U. Nations (Ed.). New York, USA: UN Global Compact Office.
- United Nations Global Compact. 2013. UN Global Anti-Corruption. Promoting Anti-Corruption Collective Action through Global Compact Local Networks. In U. Nations (Ed.). New York, USA: UN Global Compact Office.
- United Nations Global Compact. 2015. A Practical Guide for Collective Action against Corruption. In U. Nations (Ed.). New York, USA: UN Global Compact Office.
- United States Institute of Peace. 2010. Governance, corruption, and conflict, *Study Guide Series on Peace and Conflict For Independent Learners and Classroom Instructors*: 1-53. Washington, D.C.: United States Institute of Peace.
- URAI. 2017. Transparent and accountable cities: Innovative solutions for municipal management and finance, *Citizenship Series - Capacity Building Workshop*. Madrid.
- Vaillancourt, Y. 2009. Social economy in the co-construction of public policy. *Annals of Public and Cooperative Economics*, 80(2): 275-313.
- van Dooren, W., Bouckaert, G., & Halligan, J. 2015. *Performance management in the public sector* (Second ed.). London, UK: Routledge.
- van Helden, G. J., Johnsen, Å., & Vakkuri, J. 2012. The life-cycle approach to performance management: Implications for public management and evaluation. *Evaluation*, 18(2): 159-175.
- Vannucci, A. 2012. The Mechanisms of Corruption and Anti-Corruption: a Neo-institutional Perspective. In M. Kreutner (Ed.), *Practice Meets Science Contemporary Anti-Corruption Dialogue. Contributions to the International Anti-Corruption Summer Academy (IACA) 2011*, vol. 1: 69-93. Vienna - Graz: Neuer Wissenschaftlicher Verlag.
- Vannucci, A. 2015. Three paradigms for the analysis of corruption. *Labour & Law Issues*, 1(2): 1-31.
- Vannucci, A. 2019. The formal and informal institutions of corruption: an analytical framework and its implications for anticorruption policies. In E. Carloni & D. Paoletti (Eds.), *Preventing corruption through administrative measures*: 107-122: Morlacchi.
- Varvasovszky, Z. & Brugha, R. 2000. A stakeholder analysis. *Health Policy and Planning*, 15(3): 338-345.
- VCA Team. 2016. Vulnerability to Corruption Assessment of Municipalities Revenue Collection: 27. Kabul: Independent Joint Anticorruption Monitoring and Evaluation Committee (MEC).
- Vickers, J. & Yarrow, G. 1988. *Privatization: An Economic Analysis*. Cambridge, Massachusetts: MIT Press.
- Vocino, C. 1982. Sui cosiddetti interessi diffusi [On so-called widespread interests], *Studi in memoria di Salvatore Satta*, vol. II: 1879 et seq., 1881. Padova, Italy.
- Walter, U. & Petr, C. 2000. A template for family centered interagency collaboration. *Families in Society: The Journal of Contemporary Human Services*, 81: 494-503.
- Warren, M. E. 2004. What Does Corruption Mean in a Democracy? *American Journal of Political Science*, 48(2): 328-343.
- Weingrod, A. 1968. Patrons, Patronage, and Political Parties. *Comparative Studies in Society and History*, 10(4): 377-400.
- Weisbrod, B. A. 1975. Toward a theory of the voluntary nonprofit sector in a three sector economy. In E. S. Phelps (Ed.), *Altruism, Morality, and Economic Theory*: 171-196. New York, USA: Russell Sage Foundation.
- Weisel, O. & Shalvi, S. 2015. The collaborative roots of corruption. *Proceedings of the National Academy of Sciences*, 112(34): 10651-10656.
- Wholey, J. S. & Hatry, H. P. 1992. The Case for Performance Monitoring. *Public Administration Review*, 52(6): 604-610.
- Wholey, J. S. & Newcomer, K. E. 1997. Clarifying goals, reporting results. *New Directions for Evaluation*, 1997(75): 91-98.
- Williamson, O. E. 1985. Transaction Cost Economics, *The Economic Institutions of Capitalism. Firms, Markets, Relational Contracting*. New York: Free Press.

- Winarna, J., Widagdo, A., & Setiawan, D. 2017. Financial Distress of Local Government: A Study on Local Government Characteristics, Infrastructure, and Financial Condition. *Global Business and Finance Review*, 22: 34-47.
- Wiseman, R. M. & Gomez-Mejia, L. R. 1998. A behavioral agency model of managerial risk taking. *Academy of Management Review*, 23(1): 133-153.
- World Bank. 1997. Helping countries combat corruption. Washington, D.C.
- World Bank. 2007. Corruption and technology in public procurement. Washington, D.C.: The World Bank.
- World Bank. 2008. Fighting Corruption through Collective Action: A Guide for Business: World Bank.
- World Bank; Control of Corruption; <https://info.worldbank.org/governance/wgi/#doc>.
- World Bank; Government Effectiveness; <https://info.worldbank.org/governance/wgi/#doc-intro>; 22 May, 2020.
- World Trade Organization; International public procurement; https://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm; May 29, 2019.
- Xavier, J. A. & Bianchi, C. 2019. An outcome-based dynamic performance management approach to collaborative governance in crime control: insights from Malaysia. *Journal of Management and Governance*.
- Yin, R. K. 2018. *Case Study Research and Applications: Design and Methods* (Sixth ed.). London: SAGE Publications, Inc.
- Zaloznaya, M., Reisinger, W. M., & Claypool, V. H. 2018. When civil engagement is part of the problem: Flawed anti-corruptionism in Russia and Ukraine. *Communist and Post-Communist Studies*, 51(3): 245-255.
- Zhang, Y. & Shaw, J. D. 2012. From the Editors; Publishing in AMJ—Part 5: Crafting the Methods and Results. *Academy of Management Journal*, 55(1): 8-12.
- Ziolo, M., Porada-Rochon, M., & Szaruga, E. 2016. The financial distress of public sector entities, causes and risk factors. Empirical evidence from Europe in the post-crisis period, *Risk Management in Public Administration*: 315-360.
- Zúñiga, N. & Heywood, P. M. 2015. *Cleaning Up La Paz. How Bolivia's biggest city freed itself from a ubiquitous culture of corruption*. London, UK: Democracy Lab and Legatum Institute.

Legislation

Constitutional Law of 18-10-2001, no. 3, published in the Italian Official Journal no. 248 of 24-10-2001
Council Directive 2011/85/EU of 08-11-2011
D.P.R. 12 December 2006, published in the Italian Official Journal no. 301 of 29-12-2006
D.P.R. 16 June 2017
D.P.R. 24 August 1993, no. 378, published in the Italian Official Journal no. 227 of 27-09-1993
D.P.R. 29 September 1973, no. 602, published in the Italian Official Journal no. 268 of 16-10-1973
D.P.R. 30 September 1991, published in the Italian Official Journal no. 231 of 2 October 1991
D.P.S.R. 30 November 2012, no. 1, published in the G.U.R.S. of 04/01/2013
Decree-law 8 April 2013, no. 35, published in the Italian Official Journal no. 82 of 08-04-2013
Decree-law 22 October 2016, no. 193, published in the Italian Official Journal no. 282 of 02-12-2016
Decree-law 24 June 2014, no. 90, published in the Italian Official Journal no. 144 of 24-06-2014
Decree-law 31 May 1991, no. 164, published in the Italian Official Journal no. 126 of 31-05-1991
Law 2 August 2002, no. 7, published in the Official Journal of the Sicilian Region no. 37 of 10-08-2002
Law 5 May 2009, no. 42, published in the Italian Official Journal no. 103 of 06-05-2009
Law 6 June 2013, no. 64, published in the Italian Official Journal no. 132 of 07-06-2013
Law 6 November 2012, no. 190, published in the Italian Official Journal no. 265 of 13-11-2012
Law 15 July 2002, no. 145, published in the Italian Official Journal no. 172 of 24-07-2002
Law 25 March 1993, no. 81, published in the Italian Official Journal no. 72 of 27-03-1993
Law 27 December 2006, no. 296, published in the Italian Official Journal no. 299 of 27-12-2006
Law 28 December 2015, no. 208, published in the Italian Official Journal no. 302 of 30-12-2015
Legislative decree 14 March 2013, no. 33, published in the Italian Official Journal no. 80 of 05-04-2013
Legislative decree 18 August 2000, no. 267, published in the Italian Official Journal no. 227 of 28-09-2000
Legislative decree 23 June 2011, no. 118, published in the Italian Official Journal no. 172 of 26-07-2011

Jurisprudence

Deliberation no. 165/2016/PRSP of the regional control Section for the Sicilian Region of the Italian Court of Auditors
Deliberation no.16/2010/FRG of the Section for the regional and local Authorities of the Italian Court of Auditors

Judgements

Civil Section of the Court of Termini Imerese of 16-03-2015, no. 253/15, procedure no. 423/2009
Supreme Court of Cassation's ordinance of 07-01-2015, procedure no. 891/2009
Civil Section of the Court of Termini Imerese of 11-06-2014, no. 577/14, procedure no. 1225/2009
Civil Section of the Court of Termini Imerese of 11-06-2014, no. 576/14, procedure no. 580/2009
Second Penal Section of the Court of Appeal of Palermo of 06-02-2014, no. 592/14, procedure no. 891/2009
Civil Section of the Court of Termini Imerese of 05-06-2013, no. 291/13, procedure no. 581/2009
Criminal Collegiate Section of the Court of Termini Imerese of 11-05-2012, no. 312/12, procedure no. 891/2009
Criminal Collegiate Section of the Court of Termini Imerese of 04-05-2011, no. 296/11, procedure no. 757/2007

Administrative documents

Deliberation no. 3 of the City Council of Cerda on the financial distress declaration of the 23rd February 2017

APPENDIX A. Transcription of the interviews with the Public Officials and standard informative paper

Public Official #1	
Guidelines	Answers
<i>The signals of the Municipality's instability status</i>	The signals of the instability showed up in the period 2013-2014. The situation became critical, since budgets were presented with delays in the end of the reference year and the possible accounting opportunities before the law no. 118/2012 were used. When that law entered into force in 2016, actual assets were much lower than the theoretical ones by virtues of the application of different accounting rules. Despite the critical situation, the budget was made, and the Municipality's instability was declared with positive opinion of the sole auditor. There was not an agreed opinion on declaring the instability status in the municipality, because municipalities tend to avoid it.
<i>Access to budgets and final balances previous to 2008 on the Municipality's institutional website</i>	On the website one can found budgets and final balance until 2015, since the legislation about municipal decaying establishes that, when the instability is declared for municipalities, everything is frozen at the last approved final balance. There is a paper archive being bad managed. In the past, there was not the informatic system, and that has led to the painful situation of today. Thus, it is not possible to reconstruct data before 2008 because of issues with the municipal archive.
<i>Complaints by citizens due to disruptions of public services</i>	Citizens usually complain with disruptions of public services. Despite the current mayor cares a lot about the city's status and image, there are still several infrastructural problems – e.g. potholes, devastated country roads, interruptions in communal water supply, etc. The Municipality cannot increase tariffs, as it is subjected to the control Authority in setting the percentages of rates at the last ones that the City Council approved. Essential services need to be covered at 100% of their expenditures, but the Municipality cannot. Essential services are loss-making, since incomes are insufficient – approximately 50% of the expenditures. That is one of the many problems that led to the instability status.
<i>The extent to which the current administration is suffering the weight of the maladministration events of the early 2000s</i>	Municipality has been strongly influenced by those events. Moreover, national law has exacerbated its financial situation. Particularly, all Municipality's junk debts related to fees for essential public services, arisen up to 2010 and not exceeded 1,000 euros singularly, were cancelled. Consequently, the Municipality lost around 300,000 euros of bad assets. It was basically due to people who do not want to pay.
<i>The existence of an actual control carried out on the organisational transparency</i>	Civil servants do their best, but an actual control is arduous to implement.
<i>General level of communication and of collaboration with local businesses</i>	There has never been that kind of collaboration in Cerda, since there is no the proper mindset. Collaboration is desirable, but it takes time and money.
<i>The interviewee's opinion about the possibility that management direction will change as soon as the Municipality will come out of this critical financial situation</i>	Even when the Municipality will have a partially rebalanced balance-sheet, it will not able to claim that the Municipality will come out of the substantial instability status, since this process is going to take time. Moreover, the Italian State should help small municipalities. Except for those that have declared the instability status, when municipalities have not approved final balances, the State locks transfers. When the Municipality will have a permanently balanced final balance again, this rule will also apply to it. The Municipality has to always provide essential services: It does tenders, but it does not pay. Thus, companies recur to injunctions and other legal tools to guarantee their rights.

Public Official #2	
Guidelines	Answers
<i>The interviewee's opinion about Cerda Municipality's insolvency status</i>	Cerda's case is atypical, as the insolvency status should have not been declared. This last is caused by the inability of the Municipality to collect credits and, as a result, to replenish its cash and pay off the debts. The budget is in balance, but the current incomes are less than payments. Municipality's debts are frozen at the last approved final balance, namely that of 2015, when the debts were about 1 million of euros. At that time, there was no accounting insolvency, but only a cash one, because the Municipality could not pay its debts compared to the actual incomes. Hence, the first motivation of the Municipality's insolvency status is concerned with the fact that the final balance was not balanced according to the accounting interpretations of the Law 118/2012.
<i>The influence produced by the behaviour of the previous administrations on the Municipality's current performance</i>	It is probable that the most of municipalities in the Centre-South of Italy is insolvent. They do not declare the insolvency, because it has negative reflexes, but there are many small municipalities in the same critical situation of Cerda. Essential public services imply fees and, as such, the related expenses have to be covered 100% by taxpayers. Nevertheless, not all citizens pay and the Municipality can cover around 60-70% of the total expenditure. In the past, there were significant transfers from the State and the Sicilian Region that still allowed one to cash and pay the uncovered part. Hence, difficulties in tax collection with respect to the essential public services represent another reason of the Cerda's insolvency status.
<i>The weight of the maladministration events of the early 2000s on the current financial situation of Cerda</i>	The mismanagement essentially depended on the tax collection difficulties. Regarding to those facts, mismanagement was simply related to the legitimate previous accounting mechanisms. Those events are another aspect of illegitimate practices that has furtherly affected the insolvency situation, beyond the rightful measures adopted, even though they have created the mismatch between cash in and cash out. It would seem that due to professional assignments given through clientelist practices or bribery, either with insufficient or without financial coverage, further out-of-budget debts were added to debts which arose from legitimate obligations, by inevitably creating further losses, especially because of design assignments. In addition, until the early 2000s, there existed a clause according to which a professional accepted the assignment by getting paid only if his or her work had been financed by the procuring entity. The Supreme Constitutional Court declared unconstitutional that rule and, therefore, as the constitutional illegitimacy retroacts, many of those professionals who had submitted projects that the public administration had acquired, applied for getting paid their bills. Professional assignments were those weighted the most.
<i>The probability that citizens may take advantage by legal opportunities at the expenses of the Municipality and other possible causes of its insolvency status</i>	There are those who take advantage of it everywhere, especially where such mechanisms act as shock absorbers. Citizens who sue municipalities is another fundamental reason of Cerda's off-budget debt. Another reason may be the desire or arrogance of politicians who foster and support projects even when they do not have sufficient funds, although it affects less and less over time. A further cause is the expropriation for public utility before 2000. Particularly, the Supreme Constitutional Court has decided that the expropriations for which the executive procedure had not been concluded by issuing the expropriation decree within 5 years from the declaration of public utility would have become illegitimate expropriations, so that from cases of expropriation they became cases of compensation of damage, which is more costly for local governments. This was just because of a procedural mistake. To forget to issue the expropriation decree represents a phenomenon of maladministration, but not as illicit act <i>per se</i> .

<i>Citizens' perception about the maladministration events of the early 2000s</i>	Their perception is generally that the PA is managed by thieves. However, citizens sometimes ask for impossible or illegitimate things. Bad culture and the fact that within small public realities problems are exacerbated because of a more direct contact with the PA represent the real problem.
---	---

Public Official #3	
Guidelines	Answers
<i>The current financial situation of the Municipality</i>	The law of the last years determined that municipalities are nowadays in difficulty. Those that did not have an efficient administrative machine, at the time of the lack of financial foraging by the Italian State and Sicilian Region, were found not ready. There was a lot of political improvisation and the situation was what everyone saw. There was no communication between bureaucracy and politics. There was a short circuit and the last ruling class did not understand its role. Media have contributed to this social rift. This was the beginning of the Cerda's management problems.
<i>'If' and 'how' the maladministration facts of the early 2000s affected the current performance of the Municipality</i>	It all started between the late 90s and the early 2000s. Politics made a mistake and begins to make patronage. Politics became convinced that it could administer the public thing as if it was it's a private company. So, some roles were given in the PA without any requirement of skill and competence. Some civil servants were inadequate, as they were legitimized not by meritocracy, skills and adequacy to the role, but rather by the legitimacy of pleasure of politics according to a fiduciary relation. It triggered a series of situations where whoever was allowed to play a role in the bureaucratic machine. These paradoxes have determined lack of controls. From there, the disaster of Cerda Municipality began. In the early 2000s, the Municipality could have changed a lot by giving due credit to those who honestly had the qualities and abilities to perform a rigorous work, but, in that period, the local system was not citizen-centred.
<i>The perception of the main stakeholders, such as citizens and local businesses, of those corrupt mechanisms</i>	In the early 2000s, there was a lot of funding from the higher government bodies and, as a consequence, there were several public works and economic activity in Cerda. In addition to the fact that there was a strong cultural rooting of the way to look at the PA as a social welfare warrantor, people had not any reason to complain with the Municipality. When the model ended, who came after had big problems and failed to reverse the direction.
<i>The influence level produced by the maladministration events of the early 2000s on the insolvency status of the Municipality</i>	To think about 'today' rather than 'tomorrow' has led to an exponential public expenditure growth. This has resulted in a non-action towards citizens.

Public Official #4	
Guidelines	Answers
<i>The interviewee's opinion about the causes of the current Municipality's critical financial situation</i>	The years when the disbandment of the Municipality for mafia infiltrations occurred surely count, but there are other causes which have generated the current insolvency status.

A first cause was the system introduced by the harmonised accounting, due to which many municipalities have been in trouble because of yearly budgets that are not forecast-based any more. When the deficit inevitably came up, one had to do the possible to cover it.

Secondly, citizens do not pay taxes or pay them late. The Municipality has never carefully followed all the steps from the issuance of the bill until the payment receipt for the essential public services. The possible notification for unpaid sums comes to citizens after big delays, and this causes the citizen's indifference. That has caused enormous damage and difficulties, because the Municipality has to pay for the services but, on the other hand, it cannot cash in taxes.

Thirdly, the Italian State and the Sicilian Region no longer give to municipalities big contributions as it was in the past.

Fourthly, the past administrations created budget holes, since there were no funds and made an enormous amount of off-budget debts for public works procurement. It is an accounting concern, but there was a general connivance with such mechanisms everywhere.

Fifthly, purchasing procedures in Consip have been introduced recently in the Municipality. In the past, supplies were bought locally at exorbitant costs, thus leaving room for the criminal facts occurred in the early 2000s. In particular, there was not rotations in invitations and assignments to companies in the Municipality's procurement, but always the usual ones that obtained small supplies. As a consequence, big budget holes, damages, re-working and debts were such that some municipal offices are not able to plan their activities nowadays. Since 2008, with SIOPE system and other various controls, it has been quite hard to assume that kind of behaviour. In the past, there were more opportunities for certain conducts, such as to commit resources by charging non-pertinent chapters, what is more, without asking the City Council for the approval of the related budget operation and, sometimes, by committing more than what actually available, even in case of approved expenditure.

Another important factor is that civil servants are no longer formed or do not want to form. Civil servants are no longer interested in training, but rather in well-using management software for PAs. Employees now operate according to what the software commands. The interviewee highlighted that, sometimes, they do not take into account what the law also allows them to do in terms of discretion and justify themselves with the fact that computers do not allow them to proceed diversely.

The influence of the maladministration events of the early 2000s on the current management

A series of damages were done and ascertained by magistrates regarding the malfeasances of the early 2000s. Some employees went to trial and convicted. It is all chained up, but there is also a general inactivity of public authorities in taking timely action, despite the harmful conduct is ascertained. Since the Municipality had to self-regulate with the control systems, because of the so-called 'spoils system' the risk of that kind of behaviour was even higher. Maladministration is not only when one does a damage, but also when one does not do anything – i.e. omission of the delegate public power –, since citizens could benefit from adequate and better services. Civil servants are paid with public funds and if they do not implement law at the aim to improve services an indirect damage to the community is caused.

The citizens' perception about the quality of public services provided and their satisfaction degree

Citizens have different cultural level, but they generally care about the fact that public services work. However, there is a disconnection between PA and community, since the simple citizens, by finding that the PA does not work properly, detach themselves from politics and lost confidence in public institutions. At the same time, citizens do not pay taxes. Thus, citizenry's perception lies in the fact that PA is not efficient, so that it disconnects from the public life and stays away from concrete issues. A good public administration should approach its community, by involving private actors and making the sense of the institutions. In the 80s, there was reverence and respect for public officials. Nowadays, both

<i>The effectiveness of Triennial Plans for the Prevention of Corruption and of Transparency in disciplining the conduct of public officials</i>	<p>politicians and civil servants are almost seen as loafers and delinquents by citizens. The PA is no longer seen as a point of reference, but like something to fight.</p> <p>Anti-corruption legislation imposes the formulation of TPPCTs, which imply an internal control system through a post-act evaluation. It is in fact ineffective, since hard to implement. Theoretically, one should report every time that colleagues make mistakes, but it is usually preferable – as effective and efficient – to exhort them to do things better and to be more careful the next time. Furthermore, on the one hand, computerised procedures have reduced the possibility to behave differently from rules, but, on the other hand, some civil servants have complete rejection and distrust of the tools provided by the law. The consequence is a low success degree of TPPCTs to make public employees aware of risks of corruption, as well as to make anti-corruption monitoring activity effective. Basically, the fulfilment is seen as a flogging.</p>
--	--

Public Official #5	
Guidelines	Answers
<i>Story of Cerda from '90s to the declaration of the insolvency status</i>	<p>In Cerda there were two dissolutions for mafia infiltrations, in 1991 and 2006, and a succession of relevant events from which, nevertheless, no dissolution has in fact taken place. In particular, after the facts of maladministration investigated that led to a commissarial management in 2009, Cerda had a new administration that lasted until 2012. Because of some mafia intimidations, the mayor resigned and, as a result, a prefectural commission was appointed to investigate on the Municipality and shed light on the situation. The third dissolution did not materialise due to a change of the national Government. Instead, a new mayor was elected, and some civil servants linked to the events of the early 2000s were suspended.</p>
<i>Human resources endowment of the Municipality</i>	<p>In the Municipality, staff lacked capable people and managers had to do their best with what they had. Besides, in recent years, management roles have been emptied of holders, either because they have retired or because they have moved out from the Municipality, as a legal measure of what happened at the beginning of 2000s. In some municipal areas, there were high titled and qualified people as managers, but it was not possible to make a turnover and the Municipality could just appoint those who it already had in its staff, by using the so-called 'spoils system'.</p> <p>The lack of coverage of managerial roles through competitive procedures implies that politics periodically manages and decides who has to be in charge in certain areas. The interviewee pointed that it does not ensure that the good person be assigned to the proper role. Nevertheless, on the other side, public officials may have a position of supremacy, such that they may be stronger than politicians, especially when their positions are well rooted within a local government. This is the basis of the real problems at the origin of those events. In fact, many executives appointed who they wanted and chose people who did not have the right skills to fulfil certain positions. It is quite 'normal' in small municipalities.</p>
<i>The weight of the maladministration events of the early 2000s on the current insolvency status of the Municipality</i>	<p>Everything that has produced the evident current Municipality's financial situation mostly belongs to that time. The criminal facts that led to the financial failure of the Municipality of Cerda do not seem to be linked to the first dissolution, which had no direct connection with the administrative life of the local public institution, but rather with some figures who affected the political life. Indeed, the dissolution of 1991 caused a disaster in the political ruling class of the time, since it was one of the first mafia dissolutions in Italy. Thus, some politicians were left out by politics, but this paradoxically created the lack of an able ruling class that led to the events of the early 2000s. PAs have become a fundamental point in the allocation and management of professional assignments. All the facts that the judgments refer</p>

to were precisely arose in those years, that is, during the period from 2003 to 2006. Those facts turned into debts, because professionals and companies were not paid. Moreover, mismanagement provoked a series of disputes and creditors started legal procedures against the Municipality, such as injunctions, revaluations, formal notices, etc.

Professional assignments without financial coverage, or covered by national and regional transfers, have had the major impact on the current financial situation, especially transfers, which guaranteed an *ex post* financial coverage with respect to the realisation of public works. In particular, the completion of the work took place when, with a reallocation of funds, transfers could compensate for the full amount of the expenditure. In such a way, off-budget debts could arise without any particular concern about the availability of the related coverage that, sooner or later, the public Body would have obtained. Having missed this opportunity, as a result of the contraction of the sums transferred by the State, the permanence of that logic has gradually reduced the level of solvency of the Municipality and generated several disputes for professional works which were carried out but not regularised. Indeed, the latter highlight design assignments, without or with insufficient financial coverage, from which certain debts derived.

Resuming, at least until the introduction of the harmonised accounting, that mechanism allowed Municipality to increase off-budget debts with no financial resources aimed at honouring them. Furthermore, the following administrations did not care about that, since they considered it as an isolated matter of the past without any connection with the present. Thus, debts were not paid and no enforcement procedure was avoided or interrupted, despite some legal opportunities.

The current insolvency situation

Until the early 2013, no recognition of Municipality's debts had been made. The vast majority of the debts came from professional assignments for which no payment was made. At the time, the Municipality had about 1.4 million of euros of unpaid debts. Since the early 2000s, the mismanagement of liabilities and the passive acceptance of foreclosure proceedings created the current financial situation. In spite of some statute of limitations, the damage coming from those crimes still exists due to that general lack of integrity, sense of responsibility and managerial culture that have led Cerda Municipality into an insolvency status. The outgoing Extraordinary Commissioner, appointed in 2009 and in charge for 3 years, recognised the serious financial situation of Cerda and the necessity to review and re-calibrate the overall local expenditure system to guarantee public services to the community, to define the actual amount of the local incomes and, especially, of the municipal debts, for which issues of record management were also identified. The burdensome situation of the municipality was such that it was not possible to draw up the budget of 2013 in a way to cover the current, mandatory and essential expenditures. Thus, in 2013, a total of EUR 453,780.72 was recognised as the size of the municipality's off-balance-sheet debts and a cumulation of procedural expenditures, interests, monetary re-evaluations and legal expenditures of around EUR 1,134,688.63 was expected. The tangled situation which would be occurred in the following years was exacerbated, firstly, by the contingent reductions of the transfers by the National Government, of around EUR 600,000.00 and EUR 200,000.00 – respectively due to the failure to respect the European Stability and Growth Pact in 2012 and to the national spending review – and, secondly, to the envisaged yearly reduction of the regional transfers. In summary, also considering unpaid credits for the collection of own revenues of around EUR 600.000, the instability was declared for an amount higher than EUR 2 million.

Typologies of public works where corrupt behaviour mainly occurred

Infrastructural reinforcement works, assigned by both public tendering and directly, were the most important. Millions of euros were spent, for instance, for never-used school buildings, incomplete sewage pipeline and related non-working treatment plant. All those poor works have created a huge damage to the community, and even when someone paid for that, the caused damage was bigger than convictions.

<i>The existence of a municipal archive and the opportunity to access it</i>	The accounting documents related to the investigated events are not present in the official municipal archive and nobody knows where they are. That has made everything blurred and unreadable. It follows that if documents are not there and there is no archive access, the events cannot be reconstructed in detail. That has also created transversal issues to other Municipality's areas. Even judiciary and judicial police tried to retrieve the documents to ascertain facts, without result. At that time, there was no computerised system and those episodes occurred easily. It is impossible to understand how much the Municipality has actually paid over time.
<i>Municipality's capability to collect taxes</i>	What has played Cerda Municipality a bad shot and created problems has also been the inability to manage and collect local taxes. In the general thinking, the Municipality is constituted of watertight compartments, so that an area does not influence another. The lack of strategies in tax collection and other initiatives in this direction have led the Municipality to record an evasion of about 50-60%, which cannot be cushioned by transfers from higher territorial governments, being no longer available in big amounts.
<i>Legal opportunities to honouring debts</i>	About 50% of debts could have been covered by the Municipality through the financial opportunity made available with the decree-law no. 35/2013, thanks to which debts could have been delayed over time, opportunity that the Municipality lost. In addition, for several years, budget has come out at the end of the reporting year, and that has created further accounting damage. Because of this delay in presenting a draft of budget for the approval, the Municipality did not exploit its fund for long-term investments. In fact, according to the accounting legislation, without a budget approved in time, funds for investments from the Region cannot be used. The Municipality could only act in terms of current spending, so that multi-year spending was inevitably financed by current resources. The result was that the Municipality has lost the opportunity to use those destination-bounded funds which could have been used to realise useful projects for the community. To use financial resources for current expenditures in order to put in place maintenance works has become unsustainable for the Municipality.

*Doctorate in System Dynamics: Model Based Public Planning, Policy Design, and Management
Department of Political Sciences and International Relations (DEMS)
University of Palermo*

PAPER INFORMATIVO

SULLE MODALITÀ D'USO DELLE INFORMAZIONI ESTRAPOLATE MEDIANTE INTERVISTE CONVERGENTI PER FINI DI RICERCA

Titolo provvisorio della ricerca: Applying a Dynamic Performance Governance Approach to Support Anti-Corruption Strategies in Public Procurement and Enhance Performance in Local Governments: An Italian case.

Doctoral student: Salvatore Gnoffo (da qui in poi, “ricercatore”).

Il presente form è parte integrante della ricerca condotta nell’ambito in oggetto ed è finalizzato ad informare i destinatari dei contenuti e delle modalità d’uso delle interviste condotte nei mesi di Giugno e Luglio dell’anno 2019, presso il Comune di Cerda, in provincia di Palermo. Gli intervistati hanno gentilmente dedicato il loro tempo al ricercatore, contribuendo all’esplorazione del caso-studio e consentendo l’inclusione di dati primari nel suo lavoro di ricerca. Le interviste di tipo convergente si sono svolte per mezzo di dialoghi approfonditi non strutturati con alcuni funzionari municipali presso i rispettivi uffici. In ragione della tipologia di intervista selezionata e della decisione del ricercatore di non registrare le interviste condotte, tutte le informazioni disponibili sono state, inizialmente, appuntate manualmente su un personale blocco-note e, successivamente, parafrasate e trascritte attraverso un software di videoscrittura. Inoltre, i contenuti delle interviste sono stati arricchiti con ulteriori ricerche pertinenti e dettagliate, al fine di migliorarne la comprensione. Data la particolare sensibilità del topic trattato, il ricercatore si impegna a rispettare i punti che seguono:

- Le informazioni ed i dati ottenuti non verranno utilizzati per fini differenti da quelli strettamente relativi alla presente ricerca (principalmente, tesi di dottorato e pubblicazioni accademiche).
- Non verrà fatto alcun intenzionale, implicito od esplicito, riferimento alle persone degli intervistati.
- Nell’intero lavoro di ricerca, gli intervistati saranno indicati con le etichette “*Interviewee #...*” ovvero “*Public official #...*” ovvero “*Civil servant #...*” o simili, dove il simbolo “#” significa “numero”, seguito dal relativo progressivo.
- In qualsiasi momento, gli intervistati avranno la facoltà di chiedere al ricercatore di essere esclusi dalla presente ricerca insieme alle informazioni fornite durante le interviste, facendone opportuna richiesta.

- Le informazioni e i dati ottenuti mediante le interviste sono resi disponibili a ciascun intervistato, per ciò che è di sua pertinenza, in allegato al presente form. Poiché la ricerca verrà interamente elaborata in lingua inglese, le interviste parafrasate sono state altresì tradotte in lingua italiana e consegnate personalmente agli intervistati, in quanto parte integrante di suddetto allegato. Questo permetterà agli intervistati di conoscere, da un lato, in che modo le loro informazioni verranno visualizzate nel lavoro finale di ricerca e, dall'altro, i contenuti effettivamente utilizzati attraverso una più facile comprensione in madrelingua.
- Qualora gli intervistati lo desiderassero, i risultati della ricerca verranno resi disponibili dal ricercatore al termine del suo lavoro.
- Considerando che le informazioni sono state solamente trascritte manualmente e parafrasate, il ricercatore sarà sempre favorevole e disponibile a valutare eventuali rettifiche e/o integrazioni che gli intervistati vorranno sottoporre alla sua attenzione, qualora dovessero riscontrare che le trascrizioni delle interviste o parti di esse necessitino di una revisione, in quanto inesatte dal punto di vista dei contenuti e/o della forma.

Il presente form e i relativi allegati sono stati presentati *brevi manu* e in buste chiuse agli intervistati nella loro sede istituzionale a Cerda, in modo da dare loro l'opportunità di prenderne visione e di richiedere personalmente le rettifiche, modifiche od integrazioni eventualmente necessarie.

Infine, si ritiene cruciale precisare che, nella presente ricerca, il termine "corruption" ha una portata più ampia rispetto a quella della normativa nazionale vigente e, pertanto, non ha carattere strettamente legale. Diversamente, in linea con un approccio di carattere manageriale, nonché con la letteratura prevalente, il termine "corruption" è inteso nel suo significato primordiale di "bad governance" o "maladministration" connesso all'abuso, misuso od omissione del potere delegato per scopi privati. Di conseguenza, le informazioni delle interviste sono state utilizzate in coerenza con tale ampia portata del termine "corruption".

Nei mesi che seguiranno, le interviste verranno impiegate per produzioni accademiche. L'elaborato finale di tesi verrà depositato nei mesi di Ottobre-Novembre 2020 negli archivi ufficiali dell'Università degli Studi di Palermo. Pertanto, qualora nessun feedback verrà ricevuto dal ricercatore da parte degli intervistati, le trascrizioni delle interviste verranno utilizzate secondo quanto consegnato in allegato al presente paper informativo a ciascun intervistato. Considerato che il lavoro di ricerca subirà delle revisioni in corso d'opera, eventuali modifiche di forma delle trascrizioni delle interviste non pregiudicheranno il relativo significato.

Per contattare il ricercatore, si prega di utilizzare il contatto email istituzionale salvatore.gnoffo01@unipa.it. Qualora i destinatari necessiteranno di interloquire in maniera tempestiva con il ricercatore per questioni attinenti alla ricerca, potranno altresì utilizzare il recapito telefonico personale +39 [REDACTED], dal [REDACTED] al [REDACTED], dalle ore [REDACTED] alle [REDACTED].

APPENDIX B. Model equations and documentation

- MODEL OF CHAPTER 6

<p>aux Accounting and record noncompliance risk ratio autotype Real def $((1 - \text{ICT endowment ratio}) * (\text{Structural Corruption Conditions} * \text{Probability of corruption in the post-awarding phase} * \text{Weight of corruption in the post-awarding phase})) / \text{Maximum score of corruption risk range}$ doc The first-level performance driver measuring the risk of wrongdoings in the post-awarding phase. "Typical risks in overseeing order and payment and conducting final audits: <ul style="list-style-type: none"> • False claims are filed, charging for goods and services that have not been delivered. • Lack of separation of financial duties and supervision increases opportunities for false accounting, cost misallocations, and false invoicing." Source: Heggstad, K. K. & Frøystad, M. 2011. The basics of integrity in procurement, U4 Issue - Public financial management, Development cooperation, Procurement. Bergen, Norway: Chr. Michelsen Institute: 24-25.</p>
<p>aux Adjustment of Civic Morality autotype Real def $(\text{Local Institutional Trust} + \text{Perception of Municipal Accountability by Community} + (1 - \text{Resource dispersion ratio})) / 3$ doc The update of the stock 'Civic Morality'.</p>
<p>aux Adjustment of Local Institutional Trust autotype Real def $(\text{Perception of Public Services Quality by Community} / 10 + \text{Organizational expertise ratio} + \text{Political credibility ratio}) / 3$ doc The adjustment of the institutional trust by the community. Trust is constructed socially through the concrete experiences with the institutional structures, services used, and public professional figures who citizens approach with. In other terms, trust is dependent on the overall government effectiveness. The first term is divided by 10 in order to normalise it.</p>
<p>aux Adjustment of Perception of Public Services Quality by Community autotype Real def $(1 - \text{Public reworks ratio}) * \text{Average level of public services quality}$ doc The update of the Public Services Quality.</p>
<p>aux Adjustment of Structural Corruption Risk in Procurement autotype Real def $((1 - \text{Competition ratio}) + \text{Personnel Discretion} + (1 - \text{Municipal Accountability}) + (1 - \text{Civic Morality})) / 4$ doc The update of the stock 'Structural Corruption Conditions'. This formula takes a cue from four main sources: <ol style="list-style-type: none"> 1. the case-study; 2. the metaphorical corruption formula provided by Klitgaard et al. (2000: 26): $C = M + D - A$; 3. the governance indicator of the World Bank (2010) named 'Control of Corruption'; 4. the literature (Heggstad, K. K. & Frøystad, M., 2011). Sources: <ol style="list-style-type: none"> 1. Heggstad, K. K. & Frøystad, M. 2011. The basics of integrity in procurement, U4 Issue - Public financial management, Development cooperation, Procurement. Bergen, Norway: Chr. Michelsen Institute. 2. Klitgaard, R., Maclean-Abaroa, R., & Parris, H. L. 2000. Corrupt cities: a practical guide to cure and prevention: 180. California: Institute for Contemporary Studies: Institute for Contemporary Studies. 3. http://info.worldbank.org/governance/wgi/Home/Documents. </p>
<p>aux Applying evaluation criteria autotype Real autounit tender/yr def $\text{Tenders Received} / 1 \llcorner \text{yr} \gg * (1 - \text{Evaluation bias risk ratio})$ doc The outflow of the Tenders Received and, contemporary, the inflow of the Regular Tenders Accepted, by applying the evaluation and exclusion criteria. const Attrition time autotype Real autounit yr init 35 $\llcorner \text{yr} \gg$ doc The average attrition time in the Italian public sector. National reforms have changed this minimum threshold over time, but the average time according to which public employees get out of the job market in Italy stops at around 35 years. Source: Italian national retirement reforms over time.</p>
<p>const Average budget share to personnel training autotype Real</p>

<p>autounit EUR/yr init 365<<EUR/yr>> doc The average budget share annually devoted to the overall personnel training by the Municipality. Source: https://www.siope.it/Siope/dispatchSerieStoriche.action.</p>
<p>const Average fiscal pressure autotype Real autounit EUR/yr init 1325000<<EUR/yr>> doc The average fiscal pressure per capita in Cerda. It was calculated by integrating data retrieved from both ISTAT's and SIOPE's archives. In ISTAT, it is possible to obtain the historical series of the fundamental tax revenues in the Sicilian region, from 1993 to 2014. The total data was divided by the number of the Sicilian population, which has been approximatively constant at 5 million of people during the last decade. Likewise, in SIOPE, it is possible to search for historical series (i.e. Serie Storiche), go through a single public body (i.e. Singolo Ente) and select period, time step and category of incomes and/or expenditures. Data from 2008 (first data available in SIOPE) and 2014 (last data available in ISTAT) approximatively fit very well each other, so that it has been chosen to consider together to calculate this exogenous variable for the model. The value has been approximated at € 250. Population of Cerda= 5,300 people Calculation= 5300 people*250 EUR/person Sources: 1. ISTAT (TAX INCOMES): http://seriestoriche.istat.it/index.php?id=1&no_cache=1&L=1&tx_usercento_centofe%5Bcategoria%5D=52&tx_usercento_centofe%5Baction%5D=show&tx_usercento_centofe%5Bcontroller%5D=Categoria&cHash=019e4ab5763e83f77b51ef684c57cd98 2. SIOPE (TAX INCOMES): https://www.siope.it/Siope/dispatchSerieStoriche.action. 3. ISTAT (DEMOGRAPHY): http://seriestoriche.istat.it/index.php?id=1&no_cache=1&L=1&tx_usercento_centofe%5Bcategoria%5D=32&tx_usercento_centofe%5Baction%5D=show&tx_usercento_centofe%5Bcontroller%5D=Categoria&cHash=04e5a2e51acfa92f173aac082f0d8872.</p>
<p>const Average level of public services quality autotype Real init 6 doc The average quality level of public services quality. Local governments' effectiveness is unavoidably influenced by the suppliers' performance and other factors that are not under their control. Public services, such as water supply, electric power distribution and public transport networks, are generally under the national quality average in the Sicilian region, as certified by ISTAT. In particular, ISTAT's analysis of public services quality considers heterogenous services and, for many indicators used to estimate the equitable and sustainable well-being in Italy (i.e. BES), it adopts a scale going from 0 to 10. Accordingly, this parameter has been set at 6 to assume a sufficient degree of public service quality as maximum level reachable. Source: https://www.istat.it/en/archivio/237012.</p>
<p>const Average procurement cost autotype Real autounit EUR/tender init 17000<<EUR/tender>> doc The approximate estimation of the average offer cost. It depends on the kind of public work to accomplish or good to acquire. Because of the many kinds of procurement that the Municipality can put in place, it was considered an approximative value of 17,000 EUR/offer, by considering, on the one hand, the normal fee for a professional assignment related to the technical area (to which the sentences mainly refer to) and, on the other hand, the cost related to the supplies that the Municipality received over the last years. Sources: 1. DM n. 140/2012, published in the Italian Official Journal of 22/08/2012 (regulation on fees for technical professions). 2. For fee estimation: https://www.professionearchitetto.it/tools/parcella/. 3. http://www.comune.cerda.pa.it/190/avcp-2013.xml 4. http://www.comune.cerda.pa.it/190/avcp-2014.xml 5. http://www.comune.cerda.pa.it/190/avcp-2015.xml 6. http://www.comune.cerda.pa.it/190/anac2016.xml 7. http://www.comune.cerda.pa.it/190/anac2017.xml 8. http://www.comune.cerda.pa.it/190/anac2018.xml 9. http://www.comune.cerda.pa.it/190/anac2019.xml</p>
<p>const Average public contracts autotype Real autounit tender init 100<<tender>> doc The max average number of public contracts agreed upon yearly. This variable depends on the interventions planned and it has been estimated by consulting the transparency section on public contracts on the official website of the Municipality. Sources: 1. http://www.comune.cerda.pa.it/190/avcp-2013.xml 2. http://www.comune.cerda.pa.it/190/avcp-2014.xml 3. http://www.comune.cerda.pa.it/190/avcp-2015.xml 4. http://www.comune.cerda.pa.it/190/anac2016.xml 5. http://www.comune.cerda.pa.it/190/anac2017.xml 6. http://www.comune.cerda.pa.it/190/anac2018.xml 7. http://www.comune.cerda.pa.it/190/anac2019.xml</p>
<p>aux Average transfers</p>

autotype Real
autounit EUR/yr
def 2500000<<EUR/yr>>-((STEP (2500000<<EUR/yr>>*0.4, STARTTIME+20<<yr>>)))
doc The variable shows the average of the historical data of the capital and current transfers from higher government bodies. They were retrieved from OpenBilanci for the period 2005-2007 and from SIOPE for the period 2008-2019. OpenBilanci has been used as integrative source, since data retrieved from both the sources approximatively overlap for the available years.
Sources:
1. OPENBILANCI:
http://storico.openbilanci.it/bilanci/cerda-comune-pa/entrate/dettaglio?year=2014&type=consuntivo&cas_com_type=cassa.
2. SIOPE: <https://www.siope.it/Siope/dispatchSerieStoriche.action>.
The step function reflects the reduction of transfers due to the national fiscal federalism reform in 2009. It has been approximatively set at 0.4 of the average transfers as they change year by year.

const Average yearly expenditure
autotype Real
autounit EUR/yr
init 7950000<<EUR/yr>>
doc The average expenditure per capita in Cerda. Calculation: 5300 people*1500 EUR/person.
Sources:
1. <https://www.siope.it/Siope/dispatchSerieStoriche.action>.
2. http://storico.openbilanci.it/bilanci/cerda-comune-pa/spese/dettaglio?year=2005&type=consuntivo&cas_com_type=cassa.
3. <http://dati.istat.it/index.aspx?lang=en&SubSessionId=3c6ea7de-6ee6-465e-8428-b2eebea6befb>.

const Average yearly interest rate
autotype Real
autounit %/yr
init 2.35<<%/yr>>
doc The average legal interest rate for the missed payment of the debt of the Municipality.
Sources:
1. Legislative Decree 09 October 2002, no. 231, published in the Italian Official Journal no. 249 of 23-10-2002;
2. <https://www.altalex.com/documents/news/2014/12/16/tabella-del-saggio-di-interesse-legale-dal-1942-ad-oggi>.

aux Award-rigging of regular tenders
autotype Real
autounit tender/yr
def MIN ('Public interventions requirement'/1<<yr>>*'Selective awarding risk ratio'*(1-'Civic Morality'), 'Regular Tenders Accepted'/1<<yr>>*'Selective awarding risk ratio'*(1-'Civic Morality'))
doc The outflow of the Regular Tenders Accepted and, contemporary, an inflow of the Non-Regular Tenders Agreed, according to the Selective awarding risk ratio. The risk is linked to the fact that the proposals which do not win the procurement will be inevitably discarded unless the provider does not make the decision to engage in corruption. The reciprocal fraction of Civic Morality represents the general proneness to do so or not. The MIN function is useful to set a threshold at the budgeted interventions.

aux Awarding of non-regular tenders
autotype Real
autounit tender/yr
def MIN ('Public interventions requirement'/1<<yr>>*'Selective awarding risk ratio', 'Non-Regular Tenders Accepted'/1<<yr>>*'Selective awarding risk ratio')
doc The outflow of the Non-Regular Tenders Accepted and, contemporary, the inflow of the Non-Regular Tenders Agreed, according to the Selective awarding risk ratio. The MIN function is useful to set a threshold at the budgeted interventions.

aux Awarding of regular tenders
autotype Real
autounit tender/yr
def MIN ('Public interventions requirement'/1<<yr>>*(1-'Selective awarding risk ratio'), 'Regular Tenders Accepted'/1<<yr>>*(1-'Selective awarding risk ratio'))
doc The outflow of the Regular Tenders Accepted and, contemporary, the inflow of the Regular Tenders Agreed. The MIN function is useful to set a threshold at the budgeted interventions.

aux Bypassing evaluation criteria
autotype Real
autounit tender/yr
def 'Tenders Received'/1<<yr>>*'Evaluation bias risk ratio'*(1-'Civic Morality')
doc The outflow of the proposals received by the Municipality and, contemporary, the inflow of the non-regular proposals accepted by bypassing the evaluation criteria, according to the Evaluation bias risk ratio. The risk is linked to the fact that the proposals which are not compliant with the selection criteria will be discarded in the selection phase, unless the provider does not make the decision to engage in corruption. The reciprocal fraction of Civic Morality represents the general proneness to do so or not.

aux Change in Civic Morality
autotype Real
autounit yr^-1
def ('Adjustment of Civic Morality'-'Civic Morality')/'Time to Change Civic Morality'
doc The net-flow of the stock Civic Morality.

aux Change in Competing Providers
autotype Real
autounit pvd/yr
def (('Total number of local providers'*(1-'Tailored specifications risk ratio')-'Competing Providers'))/1<<yr>>

doc The net-flow of the stock of local providers involved in the municipal procurement activity.

aux Change in Local Institutional Trust

autotype Real

autounit yr⁻¹

def ('Adjustment of Local Institutional Trust'-Local Institutional Trust')/Time to change Local Institutional Trust'

doc The net-flow of the Local Institutional Trust.

aux Change in Municipal Accountability

autotype Real

autounit yr⁻¹

def ((Regularity ratio*ICT endowment ratio)-Municipal Accountability)/1<<yr>>

doc The net-change of accountability of the Municipality's staff.

aux Change in Personnel Discretion

autotype Real

autounit yr⁻¹

def ((1 - (Organizational expertise ratio*Regularity ratio))-Personnel Discretion)/5<<yr>>

doc The net change in the municipal personnel's non-legitimate discretion.

aux Change in Procurement Cost

autotype Real

autounit EUR/(yr*tender)

def ((Average procurement cost*Effect of Competition ratio on Procurement Cost)-Procurement Cost)/1<<yr>>

doc The net change in Procurement Cost.

aux Change in Perception of Public Services Quality by Community

autotype Real

autounit yr⁻¹

def ('Adjustment of Perception of Public Services Quality by Community'-Perception of Public Services Quality by Community)/1<<yr>>

doc The net-flow of the Perception of Public Services Quality by Community.

aux Change in Contracts Executed

autotype Real

autounit tender/yr

def ('Execution of regular contracts'+Execution of non-regular contracts)-Contracts Executed/1<<yr>>

aux Change in Resource Dispersion

autotype Real

autounit EUR/yr

def (((Public Reworks*Procurement Cost)+('Procurement Cost'-Average procurement cost)*Contracts Executed)-Resource Dispersion)/1<<yr>>

doc The net-flow of the Resource Dispersion. It grows as the non-regular public works executed and the difference between the actual and the average procurement price increase.

aux Change in Structural Corruption Conditions

autotype Real

autounit yr⁻¹

def ('Adjustment of Structural Corruption Risk in Procurement'-Structural Corruption Conditions)/1<<yr>>

doc The net-flow of the change in structural conditions of corruption.

aux Change in Training Capacity

autotype Real

autounit person/yr²

def ('Expenditure in personnel training'/Normal training expenditure per person-'Training Capacity')/1<<yr>>

doc The net-flow of the Municipality's training capacity.

level Civic Morality

autotype Real

init 'Adjustment of Civic Morality'

inflow { autodef 'Change in Civic Morality' }

doc The stock of the Civic Morality of the overall local community.

aux Collecting tenders

autotype Real

autounit tender/yr

def 'Total tenders receivable'/1<<yr>>

doc The inflow of the number of tenders collected yearly by the Municipality according to the submissions of vendors. It includes both to the case of direct and that one of public auctions, whatever is the procedure adopted.

const Competence evanescence time

autotype Real

autounit yr

init 10<<yr>>

doc The time according to which the organisational and the individualistic knowledge need to be renewed. Although public officials need to attend refresher courses, which are mainly due to national compulsory legislation and guidelines, their knowledge take a very long time to dissolve. Especially if they are already trained as well as employed in a small municipality, civil servants and public managers usually carry the same tasks out in accomplishing their duty, such that learning-by-doing does not need frequent refreshes.

level Competing Providers

autotype Real

autounit pvd

init 'Total number of local providers'
inflow { autodef 'Change in Competing Providers' }
doc The stock of the total number of local providers who are actually involved in the procurement activity of the Municipality.

aux Competition ratio
autotype Real
def 'Competing Providers'/'Total number of local providers'
doc The performance driver that compares the number of providers involved in the municipal public procurement with the total number of suppliers within the local area.

level Contracts Executed
autotype Real
autounit tender
init 1<<tender>>
inflow { autodef 'Change in Regular Contracts Executed' }
doc The stock of the contracts executed annually.

aux Cost on debt
autotype Real
autounit EUR/yr
def 'Debt Procurement'*('Average yearly interest rate'+ 'Costs due to unfavorable sentences')
doc The cost on the debt related to procurement for public works. It includes both the average interest rate calculated on the capital and the costs deriving from legal procedures aimed at protecting the creditors' rights.

const Costs due to unfavorable sentences
autotype Real
autounit %/yr
init 15<<%/yr>>
doc The data is the average expenditure due to compensations, sanctions and other costs related to adverse judgments from 2008 to 2019.
Source: <https://www.siope.it/Siope/dispatchSerieStoriche.action>.

level Debt Procurement
autotype Real
autounit EUR
init 1<<EUR>>
inflow { autodef 'Increase of Debt Procurement' }
outflow { autodef 'Repayment of Debt Procurement' }
doc The stock of the debt of the Municipality due to public works.

aux Depreciation rate
autotype Real
autounit EUR/yr
def 'ICT Endowment'/'Obsolescence time'
doc The outflow of the municipal ICT endowment expressing the related gradual obsolescence rate.

aux Discarding non-regular tenders accepted
autotype Real
autounit tender/yr
def 'Non-Regular Tenders Accepted'/1<<yr>>-'Awarding of non-regular tenders'
doc The rate of the Non-Regular Tenders Accepted being discarded in the award procedure. It is an outflow of the namesake stock.

aux Discarding regular tenders accepted
autotype Real
autounit tender/yr
def 'Regular Tenders Accepted'/1<<yr>>-'Awarding of regular tenders'- 'Award-rigging of regular tenders'
doc The rate of the Regular Tenders Accepted being discarded in the award procedure. It is an outflow of the namesake stock.

aux Discarding tenders received
autotype Real
autounit tender/yr
def 'Tenders Received'/1<<yr>>-'Applying evaluation criteria'- 'Bypassing evaluation criteria'
doc The rate of the Tenders Received being not compliant with evaluation and selection criteria. It is an outflow of the namesake stock.

aux Effect of Competition ratio on Procurement Cost
autotype Real
def GRAPH('Competition ratio',0,0.1,{5,4.87,4.7,4.48,3.9,3.2,2.1,1.7,1.3,1.05,1/Min:1;Max:5/})
doc This variable is the effect of competition in public works on the average cost practiced by the local providers. Indeed, in the invitation tender phase, "the lack of competition leads to an excessive price" (Heggstad, & Frøystad, 2011). Generally, this parameter does not change a lot in relation to the number of providers involved in the procurement activity of the Municipality, since public auctions and direct purchases usually follow the price/quality ratio principle in Italy. However, the European and national regulations have allowed PAs to make exceptions, in order to ensure the opportune quality degree of the public works. Thus, it has been assumed that the average cost increases when the number of providers involved decreases with respect to the total, and vice versa.
Precisely, when the Competition ratio assumes values within the interval 0-0.5, its effect has been assumed such that the cost tends to triple if the competition approximates the value 0 and it decreases increasingly when the competition degree begins to grow up to 0.5. The effect has been set by considering a range varying between a minimum of € 15,000 and a maximum of € 75,000, which is mostly referred to an approximative range that can be realistically considered for professional assignments in Italy, although it strongly depends on several factors linked to the kind of service to provide.
When the Competition ratio equals 0.5, the price increases according to the median value of the considered range. When the Competition ratio assumes values within the interval 0.5-1, its effect is such that the price decreases decreasingly, since businesses want to be competitive at the extent to which it is allowed to them by the costs of the goods and services provided. In the case where the competition degree is at its highest

value, it means that the Municipality may approximatively consider the largest set of alternatives and, as such, access to a cost brought in line with the quality and the quantity of the specific supply.

The values of the graph function have been approximatively set according to the data retrieved from the public sentences, as well as according to the range through which the prices paid for supplies were paid by the Municipality.

Sources:

1. <http://www.comune.cerda.pa.it/190/avcp-2013.xml>
2. <http://www.comune.cerda.pa.it/190/avcp-2014.xml>
3. <http://www.comune.cerda.pa.it/190/avcp-2015.xml>
4. <http://www.comune.cerda.pa.it/190/anac2016.xml>
5. <http://www.comune.cerda.pa.it/190/anac2017.xml>
6. <http://www.comune.cerda.pa.it/190/anac2018.xml>
7. <http://www.comune.cerda.pa.it/190/anac2019.xml>
8. Heggstad, K. K. & Frøystad, M. 2011. The basics of integrity in procurement, U4 Issue - Public financial management, Development cooperation, Procurement. Bergen, Norway: Chr. Michelsen Institute

aux Evaluation bias risk ratio

autotype Real

def ((1-Trained PEs ratio)*(Structural Corruption Conditions*Probability of corruption in the evaluation phase*Weight of corruption impact in the evaluation phase))/Maximum score of corruption risk range'

doc The first-level performance driver measuring the risk of corruption in the evaluation phase of procurement. In principle, it is not realistic to assume total absence of corruption in the evaluation phase if the overall staff is skilled. Likewise, it is not possible to assume that personnel are always prone to corrupt behaviours just because it is not properly trained. However, the main assumption here is that when the number of Trained PEs starts to increase, the corruption risk decreases, since the enhancement of organisational expertise and integrity makes PEs less prone to offences. Contrarily, the risk should increase where the Trained PEs are less than the Non-Trained ones, because of widespread poor expertise and integrity within the Municipality.

"Typical risks in the evaluation phase:

- Decision-makers are biased due to corruption in the evaluation process.
- Unclear definitions of the selection criteria make the selection process subjective instead of objective."

Sources:

1. Heggstad, K. K. & Frøystad, M. 2011. The basics of integrity in procurement, U4 Issue - Public financial management, Development cooperation, Procurement. Bergen, Norway: Chr. Michelsen Institute.
2. Shick, R. & Weikart, L. A. 2009. Public Organizations Undergoing Change: A Study in Urban Contracting. Public Administration Quarterly, 33(1): 71-117.

aux Execution of non-regular contracts

autotype Real

autounit tender/yr

def 'Non-Regular Tenders Agreed'/1<<yr>>

doc The outflow of the non-regular public works executed.

aux Execution of regular contracts

autotype Real

autounit tender/yr

def 'Regular Tenders Agreed'/1<<yr>>

doc The outflow of the regular public works executed.

const Expenditure in ICT

autotype Real

autounit EUR/yr

init 1200<<EUR/yr>>

doc The budget fraction used to improve the overall informative system of the Municipality. As in several small municipalities in the South of Italy, the degrees of informatisation and innovation in the overall public informative system has been inadequate in Cerda, and the only updates have essentially been due to mandatory procedural fulfilment prescribed by law, such as the recurrence to Consip and the use of SIOPE. There were insignificant investments over the past years in technical structures and tools aimed at enhancing the public informative system as a whole. The data was retrieved from SIOPE in correspondence to the average expenditure for computer equipment and software.

Source: <https://www.siope.it/Siope/dispatchSerieStoriche.action>.

aux Expenditure in personnel training

autotype Real

autounit EUR/yr

def IF('Municipality Liquidity'/1<<yr>>=>'Average budget share to personnel training', 'Average budget share to personnel training', MAX('Municipality Liquidity'/1<<yr>>, 0<<EUR/yr>>))

doc The yearly expenditure devoted to the personnel training. The MIN function is to set the threshold in the financial resources available to the Municipality.

aux Expenditure in personnel wages

autotype Real

autounit EUR/yr

def ('Average yearly expenditure'*Fraction of expenditure due to employment relationship with personnel')

doc The yearly value of the total expenditure devoted to the municipal personnel's wages.

const Fraction devoted to the training of PEs

autotype Real

init 0.5

doc The fraction devoted to the training and refresh of medium and low-specialized public officials. It was set at 0.5 to assume an equal allocation of the training budget between employees and managers, although the local government's actual policy is unknown.

const Fraction of expenditure due to employment relationship with personnel

autotype Real
init 0.5
doc The fraction of the total municipal expenditure devoted to employment relationships with the personnel. According to the ISTAT's database, the average fraction during the period 2007-2016 is about 0.5 with respect to both the current and the capital expenditure of the Municipality. Since salaries for public jobs are generally assumed as structural costs in Italy, this fraction was assumed constant in the last three decades. SIOPE's database confirms the value of this parameter.
Sources:
1. ISTAT: <http://dati.istat.it/Index.aspx?QueryId=18425#>.
2. SIOPE: <https://www.siope.it/Siope/dispatchProspettiEnti.action>.

const High-specialized public positions
autotype Real
autounit person
init 4<<people>>
doc The standard number of positions for high-specialized public offices in the Municipality. The Municipality has 4 employees who are heads of department.
Source: informal interview with the Personnel Office of the Municipality of Cerda.

level ICT Endowment
autotype Real
autounit EUR
init 10000<<EUR>>
inflow { autodef 'Increase in ICT Endowment' }
outflow { autodef 'Depreciation rate' }
doc The stock of the ICT endowment of the Municipality.
aux ICT endowment ratio
autotype Real
def 'ICT Endowment'/Normal yearly ICT expenditure'
doc The second-level performance driver measuring the short-term level of the ICT endowment of the Municipality.
aux Incomes
autotype Real
autounit EUR/yr
def 'Average fiscal pressure'*Local Institutional Trust'+Average transfers'
doc The cash-inflow of the Municipality. It is given by transfers and local tax incomes.
aux Increase in ICT Endowment
autotype Real
autounit EUR/yr
def IF('Municipality Liquidity'/1<<yr>>='Expenditure in ICT', 'Expenditure in ICT', MAX('Municipality Liquidity'/1<<yr>>, 0<<EUR/yr>>))
doc The inflow of the ICT endowment of the Municipality. It depends on the annual allocation of public resources decided by the local politics. The MIN function sets the threshold given by the Municipality's financial resources.
aux Increase in Public Reworks
autotype Real
autounit tender/yr
def 'Execution of non-regular contracts'*(1-'Civic Morality')
doc The inflow of Public Reworks. It depends on two factors: firstly, the number of contract executions coming from the non-regular awarding phase and, secondly, the degree of Civic Morality of the community, which also includes the local businesses. The assumption is that if a contract is awarded irregularly it does not mean the related provided service is poor, since it strongly depends on the individualistic consciousness of the supplier about the public duty in which it is involved. For the sake of simplicity, since it is not possible to estimate such an impact, it was assumed a proportional effect of the Civic Morality on reworks.
aux Increase of Debt Procurement
autotype Real
autounit EUR/yr
def (('Execution of regular contracts'+Execution of non-regular contracts')*Procurement Cost)*(1+Accounting and record noncompliance risk ratio)+Cost on debt'
doc The inflow of the municipal debt for public contracts and the related cost.

level Local Institutional Trust
autotype Real
init 0.315
inflow { autodef 'Change in Local Institutional Trust' }
doc The stock of Local Institutional Trust.

const Low- and medium-specialized public positions
autotype Real
autounit person
init 74<<people>>
doc The standard number of positions for medium- and low-specialized public offices in the Municipality. The Municipality has 74 public officials performing low-specialized tasks.
Source: informal interview with the Personnel Office of the Municipality of Cerda.

const Maximum score of corruption risk range
autotype Real
init 16

doc The TPCPTs consider a range of corruption impact going from 1 to 16, since both probabilities and weights are ranged 1-4 (so that, the maximum is $4*4=16$). Thus, this benchmark was considered as the maximum risk of a given form of corruption.

Source:

http://ww2.gazzettaamministrativa.it/opencms/opencms/_gazzetta_amministrativa/amministrazione_trasparente/_sicilia_cerda/222_alt_con_co_rr/.

aux Mgrs competence evanescence rate

autotype Real

autounit person/yr

def 'Trained Mgrs'/Competence evanescence time'

doc The rate at which managers dissipate their skills for competence, becoming non-trained.

aux Mgrs professional training rate

autotype Real

autounit person/yr

def $\text{MIN}(\text{'High-specialized public positions'} - \text{'Trained Mgrs'}) / \text{'Training time'}$, 'Training Capacity'*(1-'Fraction devoted to the training of PEs'))

doc The inflow increasing the level of Trained Mgrs. The MIN function is to set the variable as dependent on the actual training capacity of the Municipality.

level Municipal Accountability

autotype Real

init 'Regularity ratio'*'ICT endowment ratio'

inflow { autodef 'Change in Municipal Accountability' }

doc The stock of the municipal personnel's accountability.

level Municipality Liquidity

autotype Real

autounit EUR

init 1<<EUR>>

outflow { autodef Payments }

inflow { autodef Incomes }

doc The stock of the financial resources of the Municipality.

level Non-Regular Tenders Accepted

autotype Real

autounit tender

init 1<<tender>>

inflow { autodef 'Bypassing evaluation criteria' }

outflow { autodef 'Awarding of non-regular tenders' }

outflow { autodef 'Discarding non-regular tenders accepted' }

doc The stock of non-regular tenders for public works accepted.

level Non-Regular Tenders Agreed

autotype Real

autounit tender

init 1<<tender>>

outflow { autodef 'Execution of non-regular contracts' }

inflow { autodef 'Award-rigging of regular tenders' }

inflow { autodef 'Awarding of non-regular tenders' }

doc The stock of non-regular tenders for public works agreed upon.

aux Non-Regular Tenders Reported

autotype Real

autounit tender

def $\text{DELAYINF}(\text{'Non-Regular Tenders Accepted'} + \text{'Non-Regular Tenders Agreed'}, 1 << \text{yr} >>, 1, \text{'Non-Regular Tenders Accepted'} + \text{'Non-Regular Tenders Agreed'})$

doc The total amount of non-regular offers reported or made known to the personnel of the Municipality informally.

const Normal training expenditure per person

autotype Real

autounit EUR/person

init 1500<<EUR/person>>

doc The yearly expenditure per capita paid for personnel training. The data was estimated by comparing one representative municipality among the best performing ones in Italy with as many residents as Cerda, that is, with residents included in the range 5,000-9,999. In this case, it was selected Lignano Sabbiadoro, in the province of Udine, located in the region of Friuli-Venezia Giulia. In that region, there are around 38,000 public employees and 20 provinces, therefore around 2,000 public employees in the province.

Sources:

1. <http://www.iresfvg.org/ricerca.php>;
2. https://www.ilgazzettino.it/nordest/trieste/quasi_novantamila_dipendenti_publici_il_fvg_sfiora_il_podio-5024218.html.

In the Udine's province, there are 134, therefore around 15 public employees. Considering that Lignano Sabbiadoro has spent around EUR 25,000 per year in personnel training, the variable has been estimated at EUR 1,500 per public employee per year.

Source: <https://www.siope.it/Siope/dispatchSerieStoriche.action>.

const Normal yearly ICT expenditure

autotype Real

autounit EUR

init 50000<<EUR>>

doc The yearly expenditure per capita paid for ICT. The data was retrieved from the one of the best-in-class municipalities with as many residents as Cerda, that is, with residents included in the range 5,000-9,999. In this case, it was selected Lignano Sabbiadoro, in the Udine's province, located in the region of Friuli-Venezia Giulia. Lignano Sabbiadoro has spent around EUR 5,000 per year in computer equipment and software.

Source: <https://www.siope.it/Siope/dispatchSerieStoriche.action>.

Hence, by considering a constant depreciation of the same amount of investments, that is € 5,000, the indicated value of the ICT endowment for a small municipality can be estimated at € 50,000. The assumption is that this amount is reasonable for a small municipality and that, in order to ensure the correct functioning of the computer equipment and software, this amount should be kept constant over time.

const Obsolescence time

autotype Real

autounit yr

init 15<<yr>>

doc The average obsolescence rate of the ICT. Software and other kinds of informative structure have a long-range usage in small municipalities, especially in the South of Italy, where this kind of expenditure is marginal with respect to other primary interventions because of the scarcity of resources. Thus, the percentage of obsolescence time was reasonably set at 15 years.

aux Organizational expertise ratio

autotype Real

def ("Trained PEs"+"Trained Mgrs")/("High-specialized public positions"+"Low- and medium-specialized public positions")

doc The ratio of the trained employees up to the total (subjective deterrent). The effect of the HRs' internal composition is such that the more trained civil servants are, the higher capability to recognise possible, although blurred, malfeasances in decision-making will be, and this works as a deterrent for non-legitimate discretion of decision-makers. It is also one proxy of the government effectiveness.

aux Payments

autotype Real

autounit EUR/yr

def IF('Municipality Liquidity'/1<<yr>>=>'Expenditure in personnel wages'+ 'Expenditure in personnel training'+ 'Increase in ICT Endowment'+ 'Repayment of Debt Procurement', 'Expenditure in personnel wages'+ 'Expenditure in personnel training'+ 'Increase in ICT Endowment'+ 'Repayment of Debt Procurement', MAX('Municipality Liquidity'/1<<yr>>, 0<<EUR/yr>>))

doc The cash-outflow of the Municipality.

aux Perception of Municipal Accountability by Community

autotype Real

def DELAYINF('Municipal Accountability',1<<yr>>,1,'Municipal Accountability')

doc The degree of transparency perceived by the local community. The delay corresponds to a 1 administrative year, as the conventional time according to which the relevant stakeholders can evaluate the Municipality's action and accountability.

level Perception of Public Services Quality by Community

autotype Real

init 'Adjustment of Perception of Public Services Quality by Community'

inflow { autodef 'Change in Public Services Quality' }

doc The stock of the public services quality perceived by the community. Adopting the same scale used by ISTAT for the BES indicators, this variable varies between 0 and 10.

Sources: <https://www.istat.it/en/archivio/237012>.

level Personnel Discretion

autotype Real

init 1-('Organizational expertise ratio'* 'Regularity ratio')

inflow { autodef 'Change in Personnel Discretion' }

doc The stock of the personnel's non-legitimate discretion in public procurement.

aux PEs competence evanescence rate

autotype Real

autounit person/yr

def 'Trained PEs'/ 'Competence evanescence time'

doc The rate at which public employees dissipate their skills competence, becoming non-trained.

aux PEs professional training rate

autotype Real

autounit person/yr

def MIN(('Low- and medium-specialized public positions'- 'Trained PEs')/ 'Training time', 'Training Capacity'* 'Fraction devoted to the training of PEs')

doc The inflow increasing the level of Trained PEs. The MIN function is to set the variable as dependent on the actual training capacity of the Municipality.

aux Political credibility ratio

autotype Real

def 'Contracts Executed'/ 'Public interventions requirement'

doc The performance driver measuring the number of public interventions realised out of those actually required. It depicts the political credibility in designing and implementing public policies related to public works committed to external providers. It is a component of the government effectiveness.

const Probability of corruption in the awarding phase

autotype Real

init 2.5

doc This probability was estimated by calculating the average probabilities indicated by the Municipality's TPPCTs during the years 2017, 2018 and 2019. They are related to the sub-process "use of direct purchasing to favourite specific enterprises in assigning public works".

Source:

http://ww2.gazzettaamministrativa.it/opencms/opencms/gazzetta_amministrativa/amministrazione_trasparente/sicilia/cerda/222_alt_con_co rr/.

const Probability of corruption in the evaluation phase
autotype Real
init 2.44
doc The probability of corruption in the evaluation phase. It was estimated by calculating the average for the corruption probabilities indicated by the Municipality's TPPCTs during the years 2017, 2018 and 2019. They are related to the sub-processes: a) competitive disorders in direct assignments; b) excess of evaluative discretion of bids by the Committee; c) evasion of assignment rules in public tendering through direct purchasing procedures to favourite a specific subject.
Source:
http://ww2.gazzettaamministrativa.it/opencms/opencms/_gazzetta_amministrativa/amministrazione_trasparente/sicilia/cerda/222_alt_con_cor/.

const Probability of corruption in the post-awarding phase
autotype Real
init 1.67
doc The probability of corruption in the post-awarding phase. It was estimated by calculating the average for the corruption probabilities indicated by the Municipality's TPPCTs during the years 2017, 2018 and 2019. They are related to the sub-processes: a) non-conforming documental arrangement; b) issuing of orders for payment despite liquidation is not conform to accounting compliances.
Source:
http://ww2.gazzettaamministrativa.it/opencms/opencms/_gazzetta_amministrativa/amministrazione_trasparente/sicilia/cerda/222_alt_con_cor/.

const Probability of corruption in the pre-tendering and decision-making phase
autotype Real
init 2.43
doc The probability of corruption in the pre-tendering and decision-making phase. It was estimated by calculating the average for the corruption probabilities indicated by the Municipality's TPPCTs during the years 2017, 2018 and 2019. They are related to the sub-processes: a) definition of the object of the assignment to limit number of tenderers; b) identification of the procedure to assign a public work; c) definition of requirements to access for bids; d) distorted use of best offer criterion to favour specific enterprises.
Source:
http://ww2.gazzettaamministrativa.it/opencms/opencms/_gazzetta_amministrativa/amministrazione_trasparente/sicilia/cerda/222_alt_con_cor/.

level Procurement Cost
autotype Real
autounit EUR/tender
init 'Average procurement cost'
inflow { autodef 'Change in Procurement Cost' }
doc The first-order information delay related to the supply cost established by the local providers. Considering a single cost is just for the sake of simplicity, since it varies by virtue of the kind of the considered procurement.

const Proposals per provider
autotype Real
autounit tender/pvd
init 3<<tender/pvd>>
doc The number of offers per provider. For the sake of simplicity, it has been set at 3, since it is reasonable to assume that a single supplier can offer more than once its services in a small municipality over a year, by virtue of the proximity with the local PA.

aux Public interventions requirement
autotype Real
autounit tender
def 'Average public contracts'+ 'Public Reworks'
doc The number of public works to put in place according to the usual number of interventions and possible reworks.

level Public Reworks
autotype Real
autounit tender
init 0<<tender>>
inflow { autodef 'Increase in Public Reworks' }
outflow { autodef 'Reduction in Public Reworks' }
doc The stock of the public reworks to realise.

aux Public reworks ratio
autotype Real
def 'Public Reworks'/'Contracts Executed'
doc The ratio between the resources wasted and the total value of public works executed.
Source: Kluvers, R. 2003. Accountability for Performance in Local Government. Australian Journal of Public Administration, 62(1): 57-69.

aux Reduction in Public Reworks
autotype Real
autounit tender/yr
def 'Public Reworks'/1<<yr>>
doc The outflow of the stock Public Reworks.

level Regular Tenders Accepted
autotype Real
autounit tender
init 1<<tender>>
inflow { autodef 'Applying evaluation criteria' }
outflow { autodef 'Awarding of regular tenders' }


```

outflow { autodef 'Award-rigging of regular tenders' }
outflow { autodef 'Discarding regular tenders accepted' }
doc The stock of regular offers for public works accepted.
level Regular Tenders Agreed
type Real
autounit tender
init 1<<tender>>
inflow { autodef 'Awarding of regular tenders' }
outflow { autodef 'Execution of regular contracts' }
doc The stock of regular tenders for public works agreed upon.
aux Regular Tenders Reported
autotype Real
autounit tender
def DELAYINF('Regular Tenders Accepted'+Regular Tenders Agreed',1<<yr>>,1,'Regular Tenders Accepted'+Regular Tenders Agreed')
doc The total amount of regular offers reported or made known to the personnel of the Municipality informally.
aux Regularity ratio
autotype Real
def 'Regular Tenders Reported'/'(Regular Tenders Reported'+Non-Regular Tenders Reported')
doc The performance driver indicating the degree of procedural regularity of the procurement process.
aux Repayment of Debt Procurement
autotype Real
autounit EUR/yr
def IF('Municipality Liquidity'>='Debt Procurement', 'Debt Procurement', MAX('Municipality Liquidity', 0<<
EUR>>))/1<<yr>>
doc The repayment of the municipal debt for public contracts and the related cost.
aux Reported Debt Procurement
autotype Real
autounit EUR
def DELAYINF('Debt Procurement',1<<yr>>,1,'Debt Procurement')
doc The amount of debt for procurement perceived by the local community. The delay is set at 1 year according to the time taken by the
Municipality to make its financial statement public.
level Resource Dispersion
autotype Real
autounit EUR
init 0<<EUR>>
inflow { autodef 'Change in Resource Dispersion' }
doc The stock of resource dispersion due to 'active' waste (i.e. corruption).
aux Resource Dispersion Perceived by Community
autotype Real
autounit EUR
def DELAYINF('Resource Dispersion',1<<yr>>,1,'Resource Dispersion')
doc The amount of resource dispersion perceived by the local community. The information related to resource dispersion is usually delivered by
any kind of media to the community, such as newscasts, newspapers, or even direct observation. The delay is set at 1 year according to the time
taken by the Municipality to make its financial statement public.
aux Resource dispersion ratio
autotype Real
def 'Resource Dispersion Perceived by Community'/'Reported Debt Procurement'
doc The performance driver is the measure of the inefficiency measured by the incidence of the interventions to rework and the overall local debt.
This last is usually intended as a measure of the government's effort in providing citizens with the required public services, as stated by the Public
Official #5 during the interview. At this regard, paraphrasing Lambsdorff (2001: 6), local people may perceive high/low levels of corruption by
comparing its outcomes to other less/more pressing problems that the local government is dealing with and, in addition, disapprove/justify it by
virtue of the fact that perceptions are strongly influenced by the local culture.
Sources:

1. Lambsdorff JG. 2001. Framework document. Background paper to the 2001 Corruption Perceptions Index: Transparency International
(TI) and Göttingen University.
2. Public Official #5. 2019. Non-standardized, face-to-face convergent in-depth interview with Public Official #5 [In Italian]. In S.
Gnoffo (Ed.).

aux Selective awarding risk ratio
autotype Real
def ((1-ICT endowment ratio)*('Structural Corruption Conditions'*Probability of corruption in the awarding
phase'*Weight of corruption in the awarding phase'))/'Maximum score of corruption risk range'
doc The first-level performance driver measuring the risk of wrongdoings in the awarding phase. "Typical risks in the award phase:


- Decision makers are biased due to corruption in the award process.
- Records of the award procedure are not easily accessible. [...]

Source: Heggstad, K. K. & Frøystad, M. 2011. The basics of integrity in procurement, U4 Issue - Public financial management, Development
cooperation, Procurement. Bergen, Norway: Chr. Michelsen Institute: 24-25.
aux Solvency margin
autotype Real
autounit EUR
def 'Municipality Liquidity'-'Debt Procurement'

```


<p>doc The difference between the local debt and the actual liquidity of the Municipality.</p> <p>level Structural Corruption Conditions</p> <p>autotype Real</p> <p>init 'Adjustment of Structural Corruption Risk in Procurement'</p> <p>inflow { autodef 'Change in Structural Corruption Conditions' }</p> <p>doc The stock synthesising the cultural, socio-political, and institutional factors shaping the long-term corruption conditions of the system.</p> <p>aux Tailored specifications risk ratio</p> <p>autotype Real</p> <p>def $((1 - \text{Trained mgrs ratio}) * (\text{Structural Corruption Conditions} * \text{Probability of corruption in the pre-tendering and decision-making phase} * \text{Weight of corruption in the pre-tendering and decision-making phase})) / \text{Maximum score of corruption risk range}'$</p> <p>doc The first-level performance driver measuring the degree of "over-" or "lock-out" specification in the identification and publicisation phase of needs for goods or services (Klitgaard, R., Maclean-Abaroa, R., & Parris, H. L., 2000: 119). It includes corruption risks in need assessment, planning and budgeting for procurement, definition of requirements, choice of procedure, inviting to tender. This variable embeds some kinds of risks related to the pre-tendering and decision-making phases of procurement:</p> <ol style="list-style-type: none"> 1. "Typical risks during needs assessment: <ul style="list-style-type: none"> • Assessment of needs is insufficient due to shortage of time and/or a lack of capacity and competence on the part of the procurement staff. 2. Typical risks when planning and budgeting for procurement: <ul style="list-style-type: none"> • Planning and budgeting of purchases is insufficient and/or unrealistic. 3. Typical risks in the definition of requirements: <ul style="list-style-type: none"> • Bidding documents or terms of reference are tailored to fit one company, so that competition is either restricted or not possible. • Selection and award criteria are not defined objectively. • Selection and award criteria are not established in advance. • Firms are prequalified or shortlisted because they have offered bribes and not because of their qualifications and experience. 4. Typical risks in the choice of procedure: <ul style="list-style-type: none"> • Non-competitive procedures are used without adequate justification or in ignorance of the requirements. • Suppliers are evaluated without a prior tender process, possibly because decision makers have a private agenda for choosing a particular firm. The risk is that the best potential bidder is overlooked. 5. Risks when inviting to tender: <ul style="list-style-type: none"> • There is no public notice of the bid invitation. • Relevant information is not disseminated equitably to all bidders. • The criteria for selecting the winner are not made public." <p>Sources:</p> <ol style="list-style-type: none"> 1. Klitgaard, R., Maclean-Abaroa, R., & Parris, H. L. 2000. Corruption in procurement, Corrupt cities: A practical guide to cure and prevention: 117-150. California: Institute for Contemporary Studies. 2. Heggstad, K. K. & Frøystad, M. 2011. The basics of integrity in procurement, U4 Issue - Public financial management, Development cooperation, Procurement. Bergen, Norway: Chr. Michelsen Institute.
<p>level Tenders Received</p> <p>autotype Real</p> <p>autounit tender</p> <p>init 1<<tender>></p> <p>outflow { autodef 'Bypassing evaluation criteria' }</p> <p>inflow { autodef 'Collecting tenders' }</p> <p>outflow { autodef 'Applying evaluation criteria' }</p> <p>outflow { autodef 'Discarding tenders received' }</p> <p>doc The stock of offers for public works received.</p> <p>const Time to Change Civic Morality</p> <p>autotype Real</p> <p>autounit yr</p> <p>init 5<<yr>></p> <p>doc The time the Civic Morality spends to change. It has been assumed as the same time of a political public mandate, since change in the ruling class may be considered as a proxy of the modification in the community's preferences and mindset.</p> <p>const Time to change Local Institutional Trust</p> <p>autotype Real</p> <p>autounit yr</p> <p>init 2<<yr>></p> <p>doc The time to change the trust in local government by the community. World Bank estimates its Governance Indicator every 2 years. That means that this time is reasonably considered as sufficient to detect a change over time.</p> <p>Source: info.worldbank.org/governance/wgi/Home/downloadFile?fileName=ge.pdf.</p> <p>const Total number of local providers</p> <p>autotype Real</p> <p>autounit pvd</p> <p>init 52<<pvd>></p> <p>doc The average number of the suppliers located in Cerda operating in the construction sector and professionals. It was used the data between 2001 and 2011, as the only data available on the official ISTAT's website. The selected firms belong to the following industrial sectors:</p>

- construction: 45 firms;
- professional, scientific and technical activities (architectural and engineering activities, technical testing and analysis): 7 firms.
Total = 52 firms

Source: <http://dati-censimentoindustriaeservizi.istat.it/Index.aspx?lang=en#>. (Path: Data frame -> Units and human resources - Municipal level -> Sicilia -> Local units and human resources -> Enterprises).

aux Total tenders receivable

autotype Real

autounit tender

def 'Competing Providers'*Proposals per provider'

doc The total yearly offers per provider.

level Trained Mgrs

autotype Real

autounit person

init 'High-specialized public positions'

inflow { autodef 'Mgrs professional training rate' }

outflow { autodef 'Mgrs competence evanescence rate' }

doc The stock of managers with high expertise. It includes managers with both executive qualification and managerial office, according to the provision of the Legislative Decree 30 March 2001, no.165, published in the Italian Official Journal no. 106 of 09-05-2001.

aux Trained mgrs ratio

autotype Real

def 'Trained Mgrs'/High-specialized public positions'

doc The performance driver measuring the level of managers' professionalisation. It is given by the comparison between the Non-Trained Managers and the total high specialised public positions. It represents an intermediate-result measuring the quality level of executives in procurement.

level Trained PEs

autotype Real

autounit person

init 'Low- and medium-specialized public positions'

inflow { autodef 'PEs professional training rate' }

outflow { autodef 'PEs competence evanescence rate' }

doc The stock of public employees with skills for competence.

aux Trained PEs ratio

autotype Real

def 'Trained PEs'/Low- and medium-specialized public positions'

doc The second-level performance driver measuring the level of the public employees' professionalisation. It is given by the comparison between the Non-Trained PEs and the total medium and low-specialised public positions.

level Training Capacity

autotype Real

autounit person/yr

init 0.24<<person/yr>>

inflow { autodef 'Change in Training Capacity' }

doc The stock of the training capacity of the Municipality.

const Training time

autotype Real

autounit yr

init 0.5<<yr>>

doc The time needed to train the municipal employees and managers. Professional courses for PA are very differentiated in terms of time and they, according to the subject to deal with. Indeed, they can both require a couple days and some months to be successfully concluded. However, they take no more than a few months generally.

Source: Italian training courses for PA on the Internet.

const Weight of corruption impact in the evaluation phase

autotype Real

init 2.67

doc This weight was estimated by calculating the average for the corruption impact weights indicated by the Municipality's TPPCTs during the years 2017, 2018 and 2019. They are related to the sub-processes: a) competitive disorders in direct assignments; b) excess of evaluative discretion of bids by the Committee; c) evasion of assignment rules in public tendering through direct purchasing procedures to favourite a specific subject.

Source:

http://ww2.gazzettaamministrativa.it/opencms/opencms/gazzetta_amministrativa/amministrazione_trasparente/sicilia/cerda/222_alt_con_cor/.

const Weight of corruption in the awarding phase

autotype Real

init 2.67

doc This weight was estimated by calculating the average for the corruption impact weights indicated by the Municipality's TPPCTs during the years 2017, 2018 and 2019. They are related to the sub-process "use of direct purchasing to favourite specific enterprises in assigning public works".

Source:

http://ww2.gazzettaamministrativa.it/opencms/opencms/gazzetta_amministrativa/amministrazione_trasparente/sicilia/cerda/222_alt_con_cor/.

const Weight of corruption in the post-awarding phase

autotype Real

init 1.67

doc This weight was estimated by calculating the average for the corruption impact weights indicated by the Municipality's TPPCTs during the years 2017, 2018 and 2019. They are related to the sub-processes: a) non-conforming documental arrangement; b) issuing of orders for payment despite liquidation is not conform to accounting compliances.

Source:

http://ww2.gazzettaamministrativa.it/opencms/opencms/_gazzetta_amministrativa/amministrazione_trasparente/_sicilia/cerda/222_alt_con_co_rr/.

const Weight of corruption in the pre-tendering and decision-making phase

autotype Real

init 2.51

doc This weight was estimated by calculating the average for the corruption impact weights indicated by the Municipality's TPPCTs during the years 2017, 2018 and 2019. They are related to the sub-processes: a) definition of the object of the assignment to limit number of tenderers; b) identification of the procedure to assign a public work; c) definition of requirements to access for bids; d) distorted use of best offer criterion to favour specific enterprises.

Source:

http://ww2.gazzettaamministrativa.it/opencms/opencms/_gazzetta_amministrativa/amministrazione_trasparente/_sicilia/cerda/222_alt_con_co_rr/.

POLICY VARIABLES

aux Change in Training Capacity

def IF(TIME<30<<@yr>>,('Expenditure in personnel training/'Normal training expenditure per person'-'Training Capacity')/1<<yr>>, (POLICY_2/1<<yr>>-'Training Capacity')/1<<yr>>)

doc The inflow of the Municipality's training capacity adjusted by the suggested policy.

aux Increase in ICT Endowment

def IF(TIME<30<<@yr>>, IF('Municipality Liquidity'/1<<yr>>=>'Expenditure in ICT', 'Expenditure in ICT', MAX('Municipality Liquidity'/1<<yr>>, 0<<EUR/yr>>)), IF('Municipality Liquidity'/1<<yr>>=>POLICY_1, POLICY_1, MAX('Municipality Liquidity'/1<<yr>>, 0<<EUR/yr>>)))

doc The inflow of the ICT endowment of the Municipality adjusted by the suggested policy.

aux POLICY_1

def 'Normal yearly ICT expenditure'/1<<yr>>+'Depreciation rate'-'ICT Endowment'/1<<yr>>

aux POLICY_2

def 'High-specialized public positions'-'Trained Mgrs'+Low- and medium-specialized public positions'-'Trained PEs'

- MODEL OF CHAPTER 7

<p>aux Actual low- and medium-specialized public positions autotype Real autounit person def 'Standard number of low- and medium-specialized public positions'*Effect of Political trust ratio on PE vacancies' doc The actual number of low- and medium-specialized positions depending on the political pressure.</p>
<p>aux Adjustment in Trust in Local Politics autotype Real def (('Maximum trust in local politics'*Community Life Satisfaction/'Maximum score of Community Life Satisfaction')+('Maximum trust in local politics'*Clientelism risk ratio'))/2 doc The adjustment of trust in the local government. On the one hand, it depends on the level of effectiveness of the public action, that is, the objective degree of civil service quality determined by the level of personnel's professionalization. On the other hand, it depends on the tendency of citizens to increase their consensus where local politics recurs to clientelist practices to enlarge its electoral pool. It depends on subjective factors being captured by the 'Clientelism impact ratio'. It has been assumed a simple average of the values coming from the multiplication of the maximum parameter with the two determinant factors to capture a normal condition of the overall trust in the local politics.</p>
<p>aux Adjustment of Civil Service Quality autotype Real def 'Maximum score of organizational and individual performance'*Effect of Non-trained PEs ratio on CSQ'*Effect of Non-trained mgrs ratio on CSQ' doc The update of the level of civil service quality, which is a component of the overall government effectiveness degree. Indeed, according to the World Bank Governance Indicators: "Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies." It has been assumed a simple average of the effects led by the internal composition of both the categories to describe a normal condition of the overall civil service quality.</p>
<p>aux Adjustment of Community Life Satisfaction autotype Real def 'Maximum score of Community Life Satisfaction'*CSQ ratio' doc The update of the Community Life Satisfaction.</p>
<p>const Annual average wages of public PEs and Mgrs autotype Real autounit EUR/(yr*person) init 25000<<EUR/person/yr>> doc The annual average wages made by both PEs and Mgrs. in Italy. It is referred to the overall available period 2005-2019 on the ISTAT's official website for middle management, white collar, as well as employees referred to the compartment of regional and local bodies. Source: http://dati.istat.it/Index.aspx?lang=en&SubSessionId=a39e7ab7-e66a-4a99-916d-7e490d8152cb#.</p>
<p>const Attrition time autotype Real autounit yr init 35<<yr>> doc The average attrition time in the Italian public sector. National reforms have changed this minimum threshold over time, but the average time according to which public employees get out of the job market in Italy stops at around 35 years. Source: Italian national retirement reforms over time.</p>
<p>const Average budget share to personnel training autotype Real autounit EUR/yr init 365 <<EUR/yr>> doc The average budget share annually devoted to the overall personnel training by the Municipality. Source: https://www.siope.it/Siope/dispatchSerieStoriche.action.</p>
<p>const Average fiscal pressure per capita autotype Real autounit EUR/person init 250<<EUR/person>> doc The average fiscal pressure per capita in Cerda has been calculated by integrating data retrieved from both ISTAT's and SIOPE's archives. In ISTAT, it is possible to obtain the historical series of the fundamental tax revenues (i.e. IMU and TARSU) in the Sicilian region, from 1993 to 2014. The total data has been divided by the number of the Sicilian population, which has been approximatively constant at 5 million of people during the last decade. Likewise, in SIOPE, it is possible to search for historical series (i.e. Serie Storiche), go through a single public body (i.e. Singolo Ente) and select period, time step and category of incomes and/or expenditures. Data from 2008 (first data available in SIOPE) and 2014 (last data available in ISTAT) approximatively fit very well each other, so that it has been chosen to consider together to calculate this exogenous variable for the model. The value has been approximated at € 250.</p>

ISTAT SOURCE (TAX INCOMES):

http://seriestoriche.istat.it/index.php?id=1&no_cache=1&L=1&tx_usercento_centofe%5Bcategoria%5D=52&tx_usercento_centofe%5Baction%5D=show&tx_usercento_centofe%5Bcontroller%5D=Categoria&cHash=019e4ab5763e83f77b51ef684c57cd98.

PATH: "Balance sheets of provincial and municipal local governments" -> "Municipal government tributary assessments by category and region - 1993-2014"

SIOPE SOURCE (TAX INCOMES): <https://www.siope.it/Siope/dispatchSerieStoriche.action>.

PATH: "Entrate tributarie" -> "Serie Storiche Procapite" -> "Formato tabellare". The data considered is between 2008-2019

ISTAT SOURCE (DEMOGRAPHY):

http://seriestoriche.istat.it/index.php?id=1&no_cache=1&L=1&tx_usercento_centofe%5Bcategoria%5D=32&tx_usercento_centofe%5Baction%5D=show&tx_usercento_centofe%5Bcontroller%5D=Categoria&cHash=04e5a2e51acfa92f173aac082f0d8872.

PATH: "Resident population and demographic dynamics" -> "Resident population at the 1st of January and average by region and geographical area - Years 1952-2014"

See also: <https://www.siope.it/Siope/dispatchProspettiEnti.action> (indicators for single municipality).

const Average transfers

autotype Real

autounit EUR/yr

init 2500000<<EUR/yr>>

doc The variable shows the average of the historical data of the capital and current transfers from higher government bodies. They have been retrieved from OpenBilanci for the period 2005-2007 and from SIOPE for the period 2008-2019. OpenBilanci has been used as integrative source as data retrieved from both the sources approximatively overlap for the available years.

Sources:

1. OPENBILANCI:

http://storico.openbilanci.it/bilanci/cerda-comune-pa/entrate/dettaglio?year=2014&type=consuntivo&cas_com_type=cassa.

2. SIOPE: <https://www.siope.it/Siope/dispatchSerieStoriche.action>.

aux Change in Civil Service Quality

autotype Real

autounit yr⁻¹

def ('Adjustment of Civil Service Quality'-'Civil Service Quality')/1<<yr>>

doc The net-flow of the CSQ stock.

aux Change in Community Life Satisfaction

autotype Real

autounit yr⁻¹

def ('Adjustment of Community Life Satisfaction'-'Community Life Satisfaction')/1<<yr>>

doc The change in the community's civil service quality satisfaction.

aux Change in Training Capacity

autotype Real

autounit person/yr²

def ('Expenditure in personnel training'/'Normal training expenditure per person'-'Training Capacity')/1<<yr>>

doc The inflow of the Training Program Budget.

aux Change in Trust in Local Politics

autotype Real

autounit yr⁻¹

def ('Adjustment in Trust in Local Politics'-'Trust in Local Politics')/'Time to change Trust in Local Politics'

doc The net change of trust in the local politics.

level Civil Service Quality

autotype Real

init 'Adjustment of Civil Service Quality'

inflow { **autodef** 'Change in Civil Service Quality' }

doc The stock of civil service quality. It resumes the overall personnel's effectiveness and efficiency degrees in performing operational and managerial tasks.

aux Clientelism risk ratio

autotype Real

def ((1-'Political trust ratio')*('Probability of corruption in recruiting'*'Weight of corruption in recruiting process'))/'Maximum score of corruption risk range'

doc The performance driver through which the Municipality is enabled to reduce the probability of clientelism in recruiting. It is a dimensionless multiplier.

level Community Life Satisfaction

autotype Real

init 'Adjustment of Community Life Satisfaction'

inflow { **autodef** 'Change in Community Life Satisfaction' }

doc The stock of the community's civil service quality satisfaction.

const Competence evanescence time

autotype Real

autounit yr

init 20<<yr>>

doc The time according to which the organizational and the individualistic knowledge need to be renewed. Although public officials need to attend refresher courses, which are mainly due to national compulsory legislation and guidelines, their knowledge take a very long time to

dissolve. Especially if they are already trained as well as employed in a small municipality, civil servants and public managers usually carry the same tasks out in accomplishing their duty.

aux CSQ ratio

autotype Real

def 'Perception of CSQ by Community'/Maximum score of organizational and individual performance'

doc The performance driver capturing the **level** of managers' professionalization. It is given by the ratio between the Non-Trained Managers and the total high specialized public positions. It's a dimensionless multiplier.

aux Desired mgrs hiring rate

autotype Real

autounit person/yr

def ('Standard number of high-specialized public positions'-'Vacancies - Mgrs'-'Trained Mgrs'-'Non-Trained Mgrs')/'Labor adjustment time' + 'Trained mgrs attrition' + 'Non-trained mgrs attrition'

doc The cumulative vacancies of manager defined by the total number of managerial positions in the Municipality net of the current number of trained and non-trained managers, plus the integration of outgoing trained and non-trained managers.

aux Desired PEs hiring rate

autotype Real

autounit person/yr

def ('Actual low- and medium-specialized public positions'-'Vacancies - PEs'-'Trained PEs'-'Non-Trained PEs')/'Labor adjustment time' + 'Trained PEs attrition' + 'Non-trained PEs attrition'

doc The cumulative vacancies of civil servants defined by the total number of medium- and low-specialized positions in the Municipality, net of the current number of trained and non-trained civil servants, plus the integration of outgoing trained and non-trained civil servants.

aux Desired training capacity

autotype Real

autounit person/yr

def ('Non-Trained PEs' + 'Non-Trained Mgrs')/1<<yr>>

doc The target training capacity of managers who annually need to be engaged in training programs.

aux Desired Training Capacity Perceived by the Municipality

autotype Real

autounit person/yr

def DELAYINF('Desired training capacity',1<<yr>>,1,'Desired training capacity')

doc The desired level of training capacity perceived by the Municipality. It is delayed of 1 year, since the assessment of the quality of public employees occurs within the allocation phase of public resources, meaning during the activity and the budget planning.

aux Effect of Non-trained mgrs ratio on CSQ

autotype Real

def GRAPH('Non-trained mgrs ratio',0,0.1,{0.8,0.7,0.624,0.568,0.524,0.5,0.484,0.452,0.41,0.332,0.2//Min:0.2; Max:0.8//})

doc The tab function assumes that, when the number of Non-Trained Managers is 0 and the number of Trained ones is 4, the probability of positive impact on public service quality is 0.8. It cannot be 1, as it is not possible to realistically assume total absence of human factors causing losses in public service quality. When the number of Non-Trained Managers starts to increase, the graph function begins to decreasingly decrease, since the deterioration of competence makes managers more prone to provide poor service quality, but slowly, because of a higher presence of Trained Managers. When the two stocks are equal, the impact is 0.5. Finally, the function increasingly decreases in the second part of the graph, where Trained Managers are less than the Non-Trained ones, so that the effect starts to gain force thanks to a broadly widespread lack of competence level in the organisation. However, the minimum effect is 0.2, since it is not realistically possible to assume that all people provide the community with poor services just because they are not properly trained.

aux Effect of Non-trained PEs ratio on CSQ

autotype Real

def GRAPH('Non-trained PEs ratio',0,0.1,{0.8,0.7,0.624,0.568,0.524,0.5,0.484,0.452,0.41,0.332,0.2//Min:0.2; Max:0.8//})

doc The tab function assumes that, when the number of Non-Trained PEs is 0 and the number of Trained ones is 74, the probability of positive impact on public service quality is 0.8. It cannot be 1, as it is not possible to realistically assume total absence of human factors causing losses in public service quality. When the number of Non-Trained PEs starts to increase, the graph function begins to decreasingly decrease, since the deterioration of competence makes PEs more prone to provide poor service quality, but slowly, because of a higher presence of Trained PEs. When the two stocks are equal, the impact is 0.5. Finally, the function increasingly decreases in the second part of the graph, where Trained PEs are less than the Non-Trained ones, so that the effect starts to gain force thanks to a broadly widespread lack of competence level in the organisation. However, the minimum effect is 0.2, since it is not realistically possible to assume that all people provide the community with poor services just because they are not properly trained.

aux Effect of Political trust ratio on PE vacancies

autotype Real

def GRAPH('Political trust ratio',0,0.1,{1.3,1.298,1.288,1.27,1.224,1.15,1.085,1.042,1.018,1.006,1//Min:1;Max:1.3//})

doc The effect increases the standard number of low- and medium- specialized public positions according to the political pressure conveyed by the public trust. Public employment constitutes an important opportunity for local politicians to boost their public consensus. So, if the community is satisfied and give trust to the local politics, the public consensus increases and exercises pressure to increase the number of public positions in the Municipality.

The effect varies within a range of 0.1-0.3, since, on the one hand, it is unreal to assume absence of clientelism, even not in presence of cultural rooting of such a practice. On the other hand, it cannot be much high due to the cons deriving from adopting this practice. Accordingly, it decreases increasingly as the political trust growth, by assuming that clientelist practices imply a trade-off in decision-making in terms of, for instance, probability to be caught and political image. After the median value, i.e. 0.2, it decreasingly decreases as the politicians' wish to recur to clientelist practices slows down when the incentive is low.

aux Expenditure for public wages

autotype Real

autounit EUR/yr

def ('Standard number of high-specialized public positions' + 'Actual low- and medium-specialized public positions')*'Annual average wages of public PEs and Mgrs'

doc The actual expenditure for public wages calculated according to the actual number of PEs and the standard one of Mgrs.

aux Expenditure in personnel training

autotype Real

autounit EUR/yr

def IF('Personnel Budget'/1<<yr>>='Average budget share to personnel training', 'Average budget share to personnel training', MAX('Personnel Budget'/1<<yr>>, 0<<EUR/yr>>))

doc The expenditure due to personnel's training.

const Fraction devoted to the training of PEs

autotype Real

init 0.5

doc Fraction devoted to training of medium and low-specialized public officials. It has been set at 0.5 to assume an equal allocation of the municipal training budget, although its actual policy is unknown.

const Fraction of resources allocated to wages

autotype Real

init 0.51

doc The fraction of the local body's resources allocated to its personnel. According to the ISTAT database, the average fraction during the period 2007-2016 is around 0.51 with respect to the total incomes. Since salaries for public jobs are generally assumed as structural costs in Italy, the fraction has been assumed constant in the last three decades.

Source: <http://dati.istat.it/Index.aspx?lang=en&SubSessionId=df9cf5aa-e4c9-4150-93d5-6b03d062a272#>.

const Labor adjustment time

autotype Real

autounit yr

init 1<<yr>>

doc The time to implement hiring policies. The municipality can update its personnel strategic plan annually, when the city board draws and report the yearly budget to the city Council.

const Maximum score of Community Life Satisfaction

autotype Real

init 10

doc The maximum parameter of people's life satisfaction. ISTAT's analysis of the determinants related to the degree of life satisfaction considers several dimensions. Among these, the quality of services captures the level of social expenditure of municipalities. In performing the study, it adopts a scale going from 0 to 10.

Source: <https://www.istat.it/en/archivio/237012>.

const Maximum score of corruption risk range

autotype Real

init 16

doc The TPPCTs consider a range of corruption impact going from 1 to 16, since both probabilities and weights are ranged 1-4 (so that, the maximum is 4*4=16). Thus, this benchmark has been considered as the maximum risk impact.

Source: http://ww2.gazzettaamministrativa.it/opencms/opencms/_gazzetta_amministrativa/amministrazione_trasparente/_sicilia/_cerda/222_alt_con_co_rr/.

const Maximum score of organizational and individual performance

autotype Real

init 20

doc The maximum score of the range adopted by the Municipality to evaluate the organizational and the individual performance.

Source: http://ww2.gazzettaamministrativa.it/opencms/opencms/_gazzetta_amministrativa/amministrazione_trasparente/_sicilia/_cerda/060_perf/005_sis_mis_val_per/.

const Maximum trust in local politics

autotype Real

init 10

doc The maximum score of the range of the political trust index indicated by the Italian Economic and Social Wealth report (BES). The average trust of citizens in the local politics. According to the Italian Economic and Social Wealth report (BES) of the period 2012-2016, the variable related to the trust in politics and institutions of citizens equal an average of 3.15 (i.e. 0.315) in Sicily, within a range varying between 0 and 10. However, it has been set at 10 to assume a desired environment. It represents the subjective component of trust in local politics and institutions, which is rooted in the set of beliefs and values characterizing the local society.

Source: <https://www.istat.it/en/archivio/237012>.

aux Mgrs assimilation rate

autotype Real

autounit person/yr

def 'Non-Trained Mgrs'/'Training time'*'Training capacity ratio'*(1-'Fraction devoted to the training of PEs')

doc The outflow/inflow carries Not-Trained Managers towards the Trained ones, according to the training capacity of the municipality.

aux Mgrs competence evanescence rate

autotype Real

autounit person/yr

def 'Trained Mgrs'/'Competence evanescence time'

doc The rate at which managers' competences and skills become evanescent.

aux Mgrs vacancy closure rate

autotype Real

autounit person/yr
def 'Trained mgrs hiring' + 'Trained PEs appointing' + 'Non-trained mgrs hiring' + 'Non-trained PEs appointing'
doc The outflow of the stock 'Vacancies for Managers'.

aux Mgrs vacancy creation rate
autotype Real
autounit person/yr
def 'Desired mgrs hiring rate'
doc The inflow of the stock 'Vacancies for Managers'. It depends on the desired hiring rate of Mgrs.

level Non-Trained Mgrs
autotype Real
autounit person
init 1<<people>>
inflow { **autodef** 'Non-trained mgrs hiring' }
outflow { **autodef** 'Non-trained mgrs attrition' }
outflow { **autodef** 'Mgrs assimilation rate' }
inflow { **autodef** 'Non-trained PEs appointing' }
inflow { **autodef** 'Mgrs competence evanescence rate' }
doc The stock of managers with poor expertise. It includes managers with both executive qualification and managerial office, according to the provision of the Legislative Decree 30 March 2001, no.165, published in the Italian Official Journal no. 106 of the 9th May 2001.
Source: <https://www.gazzettaufficiale.it/eli/id/2001/05/09/001G0219/sg>.

aux Non-trained mgrs attrition
autotype Real
autounit person/yr
def 'Non-Trained Mgrs/'Attrition time'
doc The outflow reducing the level of Not-Trained Managers.

aux Non-trained mgrs hiring
autotype Real
autounit person/yr
def ('Vacancies - Mgrs/'Time to hire') * 'Vacancy replacement fraction'*'Patronage risk ratio'
doc The inflow increasing the level of Not-Trained Managers. It depends on both the national spending review reforms and the occurrence probability of patronage practices.

aux Non-trained mgrs ratio
autotype Real
def 'Non-Trained Mgrs/'Standard number of high-specialized public positions'
doc The performance driver capturing the level of managers' professionalization. It is given by the ratio between the Non-Trained Managers and the total high specialized public positions. It's a dimensionless multiplier.

level Non-Trained PEs
autotype Real
autounit person
init 1<<people>>
inflow { **autodef** 'Non-trained PEs hiring' }
outflow { **autodef** 'Non-trained PEs attrition' }
outflow { **autodef** 'PEs assimilation rate' }
outflow { **autodef** 'Non-trained PEs appointing' }
inflow { **autodef** 'PEs competence evanescence rate' }
doc The stock of public employees with poor competences and skills.

aux Non-trained PEs appointing
autotype Real
autounit person/yr
def ('Vacancies - Mgrs/'Time to appoint') * (1-'Vacancy replacement fraction') * 'Patronage risk ratio'
doc The flow is an outflow/inflow carrying Non-Trained Civil Servants towards the stock of Non-Trained Managers by means of the spoils system mechanism due to national cutback reforms, according to the complementary probability being affected by fiduciary relationships.

aux Non-trained PEs attrition
autotype Real
autounit person/yr
def 'Non-Trained PEs/'Attrition time'
doc The outflow reducing the level of Non-Trained Civil Servants.

aux Non-trained PEs hiring
autotype Real
autounit person/yr
def IF(TIME>19<<@yr>>, ('Vacancies - PEs/'Time to hire')*'Vacancy replacement fraction'*'Clientelism risk ratio', ('Vacancies - PEs/'Time to hire')*'Clientelism risk ratio')
doc The inflow increasing the level of Non-Trained PEs. It depends on both the national spending review reforms and the complementary occurrence probability of clientelist practices. The "IF" function serves to neutralise the effect of "Vacancy replacement fraction" in time 10.

aux Non-trained PEs ratio
autotype Real
def 'Non-Trained PEs/'Actual low- and medium-specialized public positions'
doc The performance driver capturing the level of civil servants' professionalization. It is given by the ratio between the Non-Trained Civil Servants and the total medium and low-specialised public positions. It's a dimensionless multiplier.

const Normal training expenditure per person
autotype Real
autounit EUR/person
init 1500<<EUR/person>>
doc The yearly expenditure per capita paid for personnel training. Data estimated by comparing the best performing Italian municipalities with as many residents as Cerda, that is, with residents included in the range 5,000-9,999. In this case, it has been selected Lignano Sabbiadoro, in the Udine's province, located in the region of Friuli Venezia-Giulia. In that region, there are around 38,000 public employees and 20 provinces, therefore around 2,000 public employees in the province.
Source:
1. <http://www.iresfvg.org/ricerca.php>;
2. https://www.ilgazzettino.it/nordest/trieste/quasi_novantamila_dipendenti_publici_il_fvg_sfiora_il_podio-5024218.html.
In the Udine's province, there are 134, therefore around 15 public employees. Considering that Lignano Sabbiadoro has spent around EUR 25,000 per year in personnel training, the variable has been estimated at EUR 1,500 per public employee per year.
Source: <https://www.siope.it/Siope/dispatchSerieStoriche.action>.

aux Patronage risk ratio
autotype Real
def ((1-'Political administrative control ratio')*(Probability of corruption in career progression'*Weight of corruption in career progression'))/'Maximum score of corruption risk range'
doc The performance driver through which the Municipality is enabled to reduce the probability of inappropriate patronage by means of the spoils system mechanism. It's a dimensionless multiplier.

aux Payments
autotype Real
autounit EUR/yr
def MAX('Expenditure for public wages' + 'Expenditure in personnel training', 0<<EUR/yr>>)
doc The outflow of the stock 'Personnel Budget'. It decreases the level variable as the Municipality pay for personnel wages and training.

aux Perception of CSQ by Community
autotype Real
def DELAYINF('Civil Service Quality',1<<yr>>,1,'Civil Service Quality')
doc The first-order information delay of civil service quality. It smooths the perception of local community people.

aux Perception of Trust in Local Politics by Politicians
autotype Real
def DELAYINF('Trust in Local Politics',0.5<<yr>>,1,'Trust in Local Politics')
doc Perception of the community trust in the local politics by the same politicians. It is a first-order information delay replicating the awareness of politicians of their public consensus.

level Personnel Budget
autotype Real
autounit EUR
init 2000000<<EUR>>
inflow { **autodef** 'Resources to HRs' }
outflow { **autodef** Payments }
doc The stock of the Municipality's resources allocated to personnel.

aux PEs assimilation rate
autotype Real
autounit person/yr
def 'Non-Trained PEs'/'Training time'*'Training capacity ratio'*'Fraction devoted to the training of PEs'
doc The rate at which the Non-Trained PEs acquire skills for competence, according to the training capacity of the Municipality.

aux PEs competence evanescence rate
autotype Real
autounit person/yr
def 'Trained PEs'/'Competence evanescence time'
doc The rate at which public employees' competences and skills become evanescent.

aux PEs vacancy closure rate
autotype Real
autounit person/yr
def 'Trained PEs hiring' + 'Non-trained PEs hiring'
doc The outflow of the stock 'Vacancies for Civil Servants'.

aux PEs vacancy creation rate
autotype Real
autounit person/yr
def 'Desired PEs hiring rate'
doc The inflow of the stock 'Vacancies for Civil Servants'. It depends on the desired hiring rate of CSS.

aux Political administrative control ratio
autotype Real
def 'Political Control over the Administrative Apparatus'/'Maximum trust in local politics'
doc The performance driver capturing the level of civil servants' professionalization. It is given by the ratio between the Non-Trained Civil Servants and the total medium and low-specialised public positions. It is a dimensionless multiplier.

aux Political Control over the Administrative Apparatus
autotype Real
def DELAYINF('Perception of Trust in Local Politics by Politicians',0.3<<yr>>,1,'Perception of Trust in Local Politics by Politicians')

doc The perception of control over the bureaucratic machine by politicians. It depends on the degree of political consensus perceived by politicians. The recognition of the actual dominant status by the local politics is quite fast, so that the reaction in terms of control over the administrative arrangement is equally quick.

aux Political trust ratio

autotype Real

def 'Perception of Trust in Local Politics by Politicians/'Maximum trust in local politics'

doc The performance driver capturing the **level** of civil servants' professionalization. It is given by the ratio between the Non-Trained Civil Servants and the total medium and low-specialised public positions. It is a dimensionless multiplier.

const Population

autotype Real

autounit person

init 5300<<people>>

doc The average number of people who have lived in Cerda in the last 10 years.

Source: <http://dati.istat.it/index.aspx?lang=en&SubSessionId=3c6ea7de-6ee6-465e-8428-b2eebea6befb>.

However, the data did not vary during the last 20 years as other sources showed (e.g. <https://www.tuttitalia.it/sicilia/67-cerda/statistiche/popolazione-andamento-demografico/>, built on ISTAT statistics).

const Probability of corruption in career progression

autotype Real

init 1

doc The average probability of corruption in the career progression process. It has been estimated at 1 by calculating the average of the probabilities of corruption in career progression indicated by the Municipality in its Triennial Plans for Corruption Prevention and Transparency during the years 2017, 2018 and 2019.

Source:

http://ww2.gazzettaamministrativa.it/opencms/opencms/_gazzetta_amministrativa/amministrazione_trasparente/_sicilia/_cerda/222_alt_con_co_rr/.

const Probability of corruption in recruiting

autotype Real

init 2

doc The average probability of corruption in the recruiting process. It has been initially estimated at 2 by calculating the average of the probabilities of corruption in recruiting indicated by the Municipality in its Triennial Plans for Corruption Prevention and Transparency during the years 2017, 2018 and 2019.

Source:

http://ww2.gazzettaamministrativa.it/opencms/opencms/_gazzetta_amministrativa/amministrazione_trasparente/_sicilia/_cerda/222_alt_con_co_rr/.

aux Resources to HRs

autotype Real

autounit EUR/yr

def ((Population*'Average fiscal pressure per capita')/1<<yr>>+'Average transfers')*'Fraction of resources allocated to wages'

doc The inflow of the stock 'Personnel Budget'. It increases the level variable as the Municipality collects local taxes and transfers from the higher territorial governments.

const Standard number of high-specialized public positions

autotype Real

autounit person

init 4<<people>>

doc The standard number of positions for high-specialized public offices in the Municipality. The Municipality has 4 employees who are either heads of department.

Source: informal interview with the Personnel Office of the Municipality of Cerda.

const Standard number of low- and medium-specialized public positions

autotype Real

autounit person

init 74<<people>>

doc The standard number of positions for medium- and low-specialized public offices in the Municipality. The Municipality has 74 public officials performing low-specialized tasks.

Source: informal interview with the Personnel Office of the Municipality of Cerda.

const Time to appoint

autotype Real

autounit yr

init 5<<yr>>

doc The term of office for a mayor in Italy.

const Time to change Trust in Local Politics

autotype Real

autounit yr

init 2<<yr>>

doc The World Bank estimates its Governance Indicators every 2 years. That means that this time is reasonably considered as sufficient to detect a change in political trust over time.

Source: info.worldbank.org/governance/wgi/Home/downloadFile?fileName=ge.pdf.

const Time to hire

autotype Real

autounit yr

init 2<<yr>>
doc The time to hire people in the public administration. The parameter is referred to the time spent to obtain the authorization to announce a public call and conclude the overall hiring procedure in the public sector, which is rather long in Italy, by virtue of some assessments need to be carried out before to start a public call.

level Trained Mgrs
autotype Real
autounit person
init 3<<people>>
inflow { **autodef** 'Trained mgrs hiring' }
outflow { **autodef** 'Trained mgrs attrition' }
inflow { **autodef** 'Mgrs assimilation rate' }
inflow { **autodef** 'Trained PEs appointing' }
outflow { **autodef** 'Mgrs competence evanescence rate' }
doc The stock of managers with high expertise. It includes managers with both executive qualification and managerial office, according to the provision of the Legislative Decree 30 March 2001, no.165, published in the Italian Official Journal no. 106 of the 9th May 2001.
Source: <https://www.gazzettaufficiale.it/eli/id/2001/05/09/001G0219/sg>.

aux Trained mgrs attrition
autotype Real
autounit person/yr
def 'Trained Mgrs'/Attrition time'
doc The outflow reducing the level of Trained Managers.

aux Trained mgrs hiring
autotype Real
autounit person/yr
def 'Vacancies - Mgrs'/Time to hire*'Vacancy replacement fraction'*(1-'Patronage risk ratio')
doc The inflow increasing the level of Trained Managers. It depends on both the national spending review reforms and the complementary occurrence probability of patronage practices.

level Trained PEs
autotype Real
autounit person
init 73<<people>>
inflow { **autodef** 'Trained PEs hiring' }
outflow { **autodef** 'Trained PEs attrition' }
inflow { **autodef** 'PEs assimilation rate' }
outflow { **autodef** 'Trained PEs appointing' }
outflow { **autodef** 'PEs competence evanescence rate' }
doc The stock of public employees with competences and skills.

aux Trained PEs appointing
autotype Real
autounit person/yr
def ('Vacancies - Mgrs'/Time to appoint) * (1-'Vacancy replacement fraction') * (1-'Patronage risk ratio')
doc The flow is an outflow/inflow carrying Trained Civil Servants towards the stock of Trained Managers by means of the spoils system mechanism due to national cutback reforms, according to the complementary probability being not affected by fiduciary relationships.

aux Trained PEs attrition
autotype Real
autounit person/yr
def 'Trained PEs'/Attrition time'
doc The outflow reducing the level of Trained PEs.

aux Trained PEs hiring
autotype Real
autounit person/yr
def IF(TIME>19<<@yr>>,('Vacancies - PEs'/Time to hire)'*Vacancy replacement fraction'*(1-'Clientelism risk ratio'), ('Vacancies - PEs'/Time to hire)'*(1-'Clientelism risk ratio'))
doc The inflow increasing the level of Trained PEs. It depends on both the national spending review reforms and the complementary occurrence probability of clientelism practices. The "IF" function serves to neutralise the effect of "Vacancy replacement fraction" in time 10.

level Training Capacity
autotype Real
autounit person/yr
init 0.24<<person/yr>>
inflow { **autodef** 'Change in Training Capacity' }
doc The stock of the training capacity of the Municipality.

aux Training capacity ratio
autotype Real
def 'Training Capacity'/Desired Training Capacity Perceived by the Municipality'
doc The performance driver of the training capacity of the Municipality.

const Training time
autotype Real
autounit yr
init 0.5<<yr>>

doc The time needed to train the municipal employees. Professional courses for PA are very differentiated in terms of time and topic. Indeed, they can both require a couple days and some months to be successfully concluded. However, they take no more than a few months generally.
Source: Italian training courses for PA on the Internet.

level Trust in Local Politics

autotype Real

init 'Maximum trust in local politics'

inflow { **autodef** 'Change in Trust in Local Politics' }

doc The level of trust in the local politics. Political trust may be developed thanks to the politicians' capability to provide the community with high-quality civil services over a specific time lapse.

level Vacancies - Mgrs

autotype Real

autounit person

init 0<<people>>

inflow { **autodef** 'Mgrs vacancy creation rate' }

outflow { **autodef** 'Mgrs vacancy closure rate' }

doc The level of vacancies for managers.

level Vacancies - PEs

autotype Real

autounit person

init 0<<people>>

outflow { **autodef** 'PEs vacancy closure rate' }

inflow { **autodef** 'PEs vacancy creation rate' }

doc The level of vacancies for civil servants.

aux Vacancy replacement fraction

autotype Real

def $1 + (\text{STEP}(-0.20, \text{STARTTIME} + 10 \ll \text{yr} \gg)) + (\text{STEP}(-0.35, \text{STARTTIME} + 20 \ll \text{yr} \gg))$

doc The fraction of replacement of the municipality's vacancies. The first step function captures the reduction of the fraction in favour of internal appointing, occurred between the late '90s and the early 2000s' (Public Official #3, 2019). The second step function, instead, represents the impact of the austerity measure provided by the national government in 2010, correspondent to time 20 in the model. Accordingly, the turnover has been locked until the present day by virtue of several national legal provisions, which differentiated each other in function of heterogeneous parameters mainly linked to the local population, to the overall past expenditure and, in general, to specific budgetary results, based on a rewarding system to the most virtuous PAs. For the sake of simplicity, considering that the interviewees confirmed that the Municipality experienced a decrease in its HR endowment over time, it has been assumed an average of 45% of replacement of the ceased job relationships. This is in coherence with the percentage of turnover established by the legal provisions mentioned above.

Sources:

1. the law 27 December 2006, no. 296, published in the Italian Official Journal no. 299 of 27-12-2006 (https://www.gazzettaufficiale.it/atto/serie_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=2006-12-27&atto.codiceRedazionale=006G0318);
2. the decree-law 24 June 2014, no. 90, published in the Italian Official Journal no. 144 of 24-06-2014 (<https://www.gazzettaufficiale.it/eli/id/2014/06/24/14G00103/sg>);
3. the law 28 December 2015, no. 208, published in the Italian Official Journal no. 302 of 30-12-2015 (<https://www.gazzettaufficiale.it/eli/id/2015/12/30/15G00222/sg>).
4. Public Official #3, 2019. Non-standardized, face-to-face convergent in-depth interview with Public Official #3 [In Italian]. Held: June 26, 2019. In S. Gnoffo (Ed.), Ph. D. research.
5. Kickert, W., Randma-Liiv, T., & Savi, R. 2013. Fiscal consolidation in Europe: A comparative analysis, COCOPS deliverable 7.2, September.

const Weight of corruption in career progression

autotype Real

init 1

doc The average weight of corruption in the career progression process. It has been estimated at 1 by calculating the average of the weights of corruption in career progression indicated by the Municipality in its Triennial Plans for Corruption Prevention and Transparency during the years 2017, 2018 and 2019.

Source:

http://ww2.gazzettaamministrativa.it/opencms/opencms/gazzetta_amministrativa/amministrazione_trasparente/sicilia/cerda/222_alt_con_corr/.

const Weight of corruption in recruiting process

autotype Real

init 2

doc The average weight of corruption in the recruiting process. It has been initially estimated at 2 by calculating the average of the weights of corruption in recruiting indicated by the Municipality in its Triennial Plans for Corruption Prevention and Transparency during the years 2017, 2018 and 2019.

Source:

http://ww2.gazzettaamministrativa.it/opencms/opencms/gazzetta_amministrativa/amministrazione_trasparente/sicilia/cerda/222_alt_con_corr/.

POLICY VARIABLES

aux Actual low- and medium-specialized public positions

def $\text{IF}(\text{TIME} < 30 \ll \text{yr} \gg, \text{'Standard number of low- and medium-specialized public positions'} * \text{'Effect of Political trust ratio on PE vacancies'}, \text{'Standard number of low- and medium-specialized public positions'} * (1 + (\text{POLICY } 3 * \text{'Effect of Political trust ratio on PE vacancies'})))$

doc The actual number of PE positions adjusted by the suggested policy.

aux Change in Training Capacity
def IF(TIME<30<<@yr>>, ('Expenditure in personnel training'/'Normal training expenditure per person'-Training Capacity)/1<<yr>>, 'POLICY 1a')
doc The net-flow of the stock Training Capacity adjusted by the suggested policy.

aux Payments
autotype Real
autounit EUR/yr
def IF(TIME<30<<@yr>>, MAX('Expenditure for public wages'+Expenditure in personnel training', 0<<EUR/yr>>), MAX('Expenditure for public wages'+POLICY 1b', 0<<EUR/yr>>))
doc The outflow of the stock 'Personnel Budget' adjusted by the suggested policy.

aux POLICY 1a
def ('Desired training capacity'-Training Capacity)/2<<yr>>
doc The policy related to the training program.

const POLICY 1b
def 'Normal training expenditure per person'*Training Capacity'
doc The expenditure for the personnel's training deriving from POLICY 1a.

const POLICY 1c
def 400<<EUR/person>>
doc The funding of the personnel's training deriving from POLICY 1a. It represents the higher bad taxes collected by the Special Management Commission since the beginning of the financial distress of the local Body's bankruptcy in 2017.

const POLICY 2
autotype Real
init 0
doc The policy related to both the annihilation of the 'spoils system' and the unblock of the public personnel's turnover established at national level.

const POLICY 3
autotype Real
init 0
doc The policy related to the political willingness to refuse any clientelist practice.

aux Resources to HRs
autotype Real
autounit EUR/yr
def IF(TIME<30<<@yr>>, ((Population*'Average fiscal pressure per capita')/1<<yr>>+'Average transfers')*Fraction of resources allocated to wages', ((Population*POLICY 1c)/1<<yr>>+'Average transfers')*Fraction of resources allocated to wages')
doc The inflow of the stock 'Personnel Budget' adjusted by the suggested policy.

aux Vacancy replacement fraction
autotype Real
def IF(TIME<30<<@yr>>, 1+(STEP(-0.20,STARTTIME+10<<yr>>))+STEP(-0.35,STARTTIME+20<<yr>>)), 1+((STEP(-0.20,STARTTIME+10<<yr>>))+STEP(-0.35,STARTTIME+20<<yr>>))*POLICY 2')
doc The vacancy replacement fraction adjusted by the suggested policy.

APPENDIX C. Model validation tests

In order to validate the formal structure of the models, the *structure-confirmation test* (Barlas, 1996) was performed both empirically and theoretically. In particular, it is based on qualitative and quantitative data retrieved from: the in-depth convergent interviews with the Public Officials of the Municipality – discussed in Chapter 5 –; personal communications with the Municipality’s civil servants; the quoted judgements; the official archives of relevant Italian public institutions – mainly the ISTAT’s, SIOPE’s and Municipality’s open-access repositories –; and the prevalent literature.

Regarding the *parameter-confirmation test* (Barlas, 1996), the model parameters were estimated by retrieving pertinent conceptual and numerical information from: the ISTAT’s and SIOPE’s websites; the personal communications with some Municipality’s public employees; the primary and secondary data obtained through the convergent interviews with the municipal Public Officials; and the accounting and administrative documentation available on the institutional website of the Municipality of Cerda. The adopted parameter values sufficiently guarantee a minimum of reliability and appreciable consistency and accuracy degrees with the relevant conceptual and numerical knowledge of the system (Sterman, 2000).

The following tests were performed in Powersim’s Studio 10 Academic.

- MODEL OF CHAPTER 6

The *direct extreme-condition test* (Barlas, 1996) was performed by considering plausible that if the ‘Competing Providers’ equals zero, the overall procurement process is cancelled due to the absence of tenderers and, as a result, the ‘Debt Procurement’ is zeroed as well, thus exponentially increasing the ‘Solvency margin’. This assumption was successfully corroborated by means of model simulations.

Regarding the *indirect extreme-condition test* (Barlas, 1996), it is realistic to assume that the ‘Solvency margin’ is positive as long as all the first-level performance drivers related to the risks of corruption along the procurement process are null. Initialising the model in equilibrium, this hypothesis was certified by deactivating each of the four risk performance drivers – cf. Table I.

There were no error notifications by the used modelling software in terms of *consistency of the measure* units with the reality. The Appendix B corroborates this validation test.

Table I. Indirect extreme-condition test – All risk performance drivers deactivated.

Time	Municipality Liquidity	Debt Procurement	Solvency margin
year	EUR		
0	3,178,984.00	2,465,801.24	713,182.76
1	3,179,023.22	2,404,612.37	774,410.84
2	3,179,497.40	2,439,408.73	740,088.67
3	3,182,681.01	2,446,457.46	736,223.55
4	3,187,879.21	2,435,100.65	752,778.56
5	3,193,127.81	2,422,700.85	770,426.96
6	3,197,305.74	2,414,571.78	782,733.96
7	3,200,211.02	2,410,254.77	789,956.25
8	3,202,072.69	2,408,220.98	793,851.71
9	3,203,206.55	2,407,334.56	795,871.99
10	3,203,875.54	2,406,968.66	796,906.88
11	3,204,262.50	2,406,823.50	797,438.99
12	3,204,483.57	2,406,767.62	797,715.95
13	3,204,608.88	2,406,746.60	797,862.28
14	3,204,679.53	2,406,738.83	797,940.70
15	3,204,719.19	2,406,736.00	797,983.18
16	3,204,741.35	2,406,734.98	798,006.36
17	3,204,753.66	2,406,734.62	798,019.04
18	3,204,760.44	2,406,734.49	798,025.94
19	3,204,764.12	2,406,734.45	798,029.67
20	3,204,766.06	2,406,734.43	798,031.63
21	3,204,767.05	2,406,734.43	798,032.62
22	3,204,767.50	2,406,734.42	798,033.08
23	3,204,767.67	2,406,734.42	798,033.25
24	3,204,767.68	2,406,734.42	798,033.26
25	3,204,767.62	2,406,734.42	798,033.20
26	3,204,767.52	2,406,734.42	798,033.09
27	3,204,767.40	2,406,734.42	798,032.98
28	3,204,767.28	2,406,734.42	798,032.86
29	3,204,767.16	2,406,734.42	798,032.74
30	3,204,767.05	2,406,734.42	798,032.63

The *behavior sensitivity tests* (Barlas, 1996) were realised with the aim to corroborate how sensitive the most significant stock variables related to the procurement process, the accounting area and the outcome sector are compared to variations of significant parameters linked to corruption. ‘Latin Hypercube’ was the sampling method adopted, as it ensures the representativeness of the samples of the selected parameters for the probability distribution found. 40 runs were performed, as suggested by the default settings of the software. For the sake of simplicity, the identified parameters were considered as normally-truncated distributed, according to the range within which they were assumed to vary. The expected values equal the actual ones that were used in the model, and the standard deviations were set sufficiently large to corroborate their impact on the model, according to the opportune upper and lower limits.

Structural examinations revealed that the selected stock variables are sensitive to both the probabilities and the weights of each form of corruption along the procurement process. More precisely, the sensitivity tests were performed in relation to ten key variables – see the Figures A, B, C, D, E, F, G below – that is: ‘Civic Morality’, ‘Debt Procurement’, ‘Local Institutional Trust’, ‘Competing Providers’, ‘Contracts Executed’, ‘Municipal Accountability’, ‘Personnel Discretion’, ‘Regular Tenders Accepted’, ‘Regular Tenders Agreed’, ‘Resource Dispersion’.

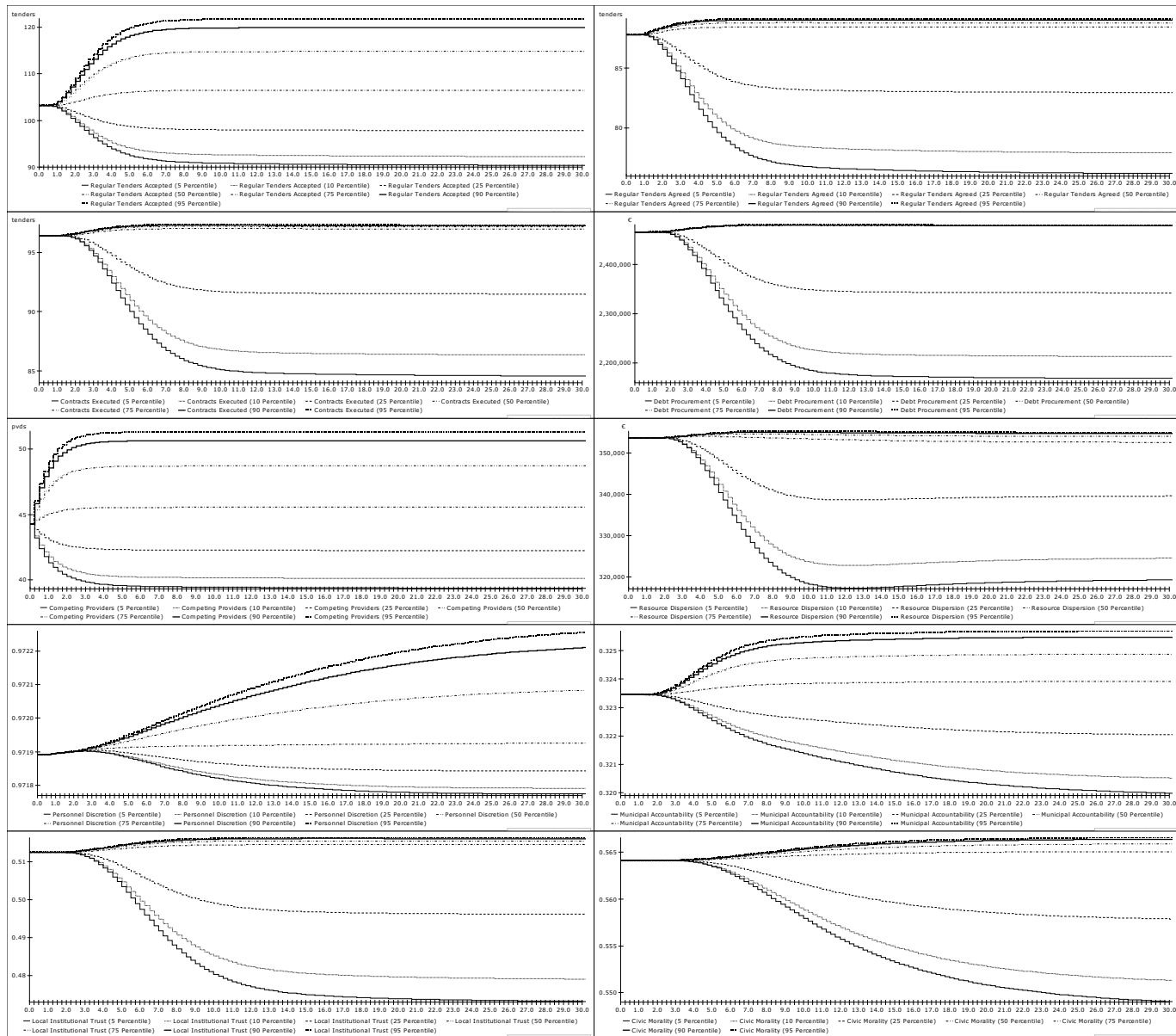


Figure A. Sensitivity test of 'Probability of corruption in the pre-tendering and decision-making phase' (expected value: 2.43; standard deviation: 4; lower limit: 0; upper limit: 4).

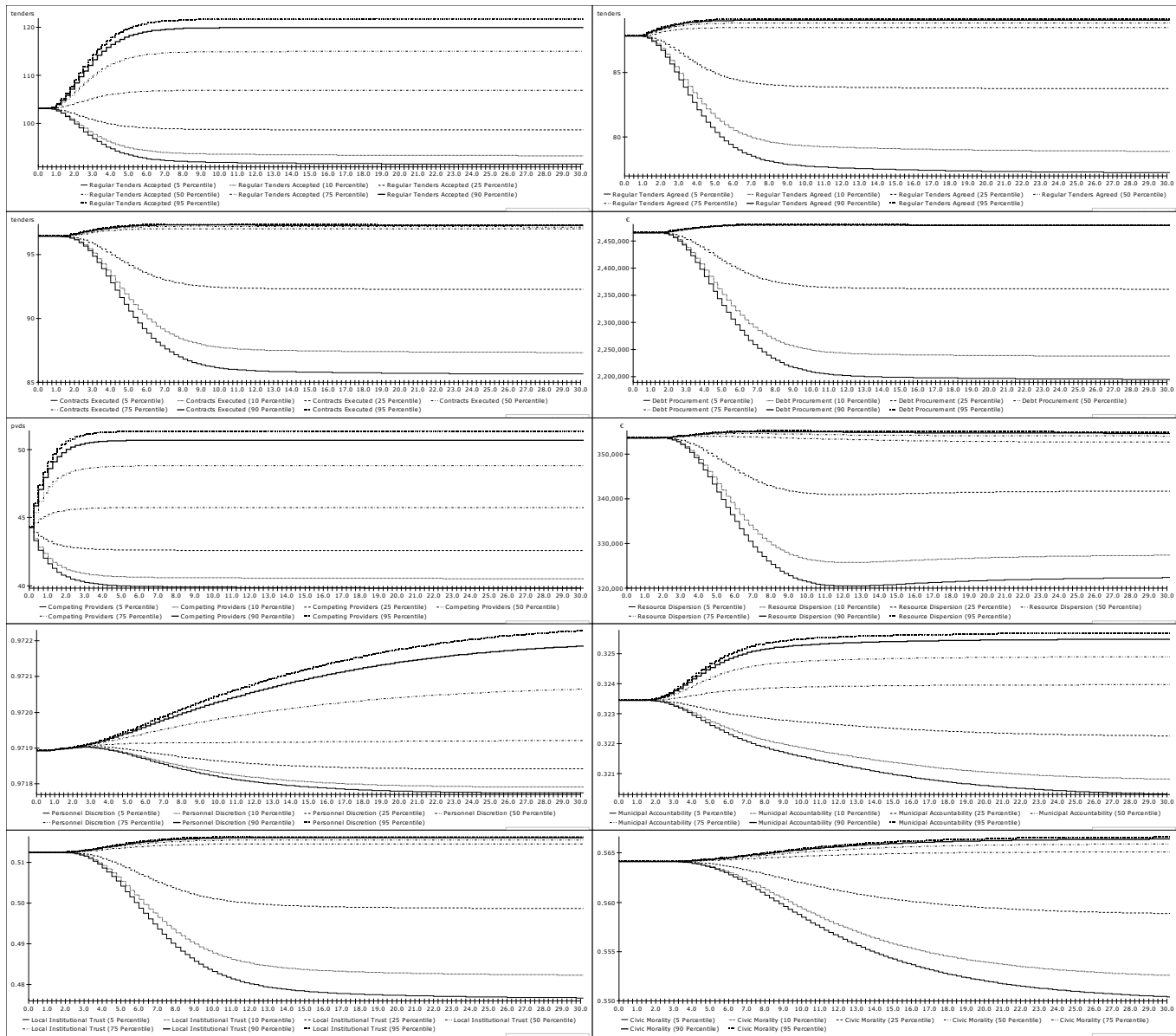


Figure B. Sensitivity test of 'Weight of corruption in the pre-tendering and decision-making phase' (expected value: 2.51; standard deviation: 4; lower limit: 0; upper limit: 4).

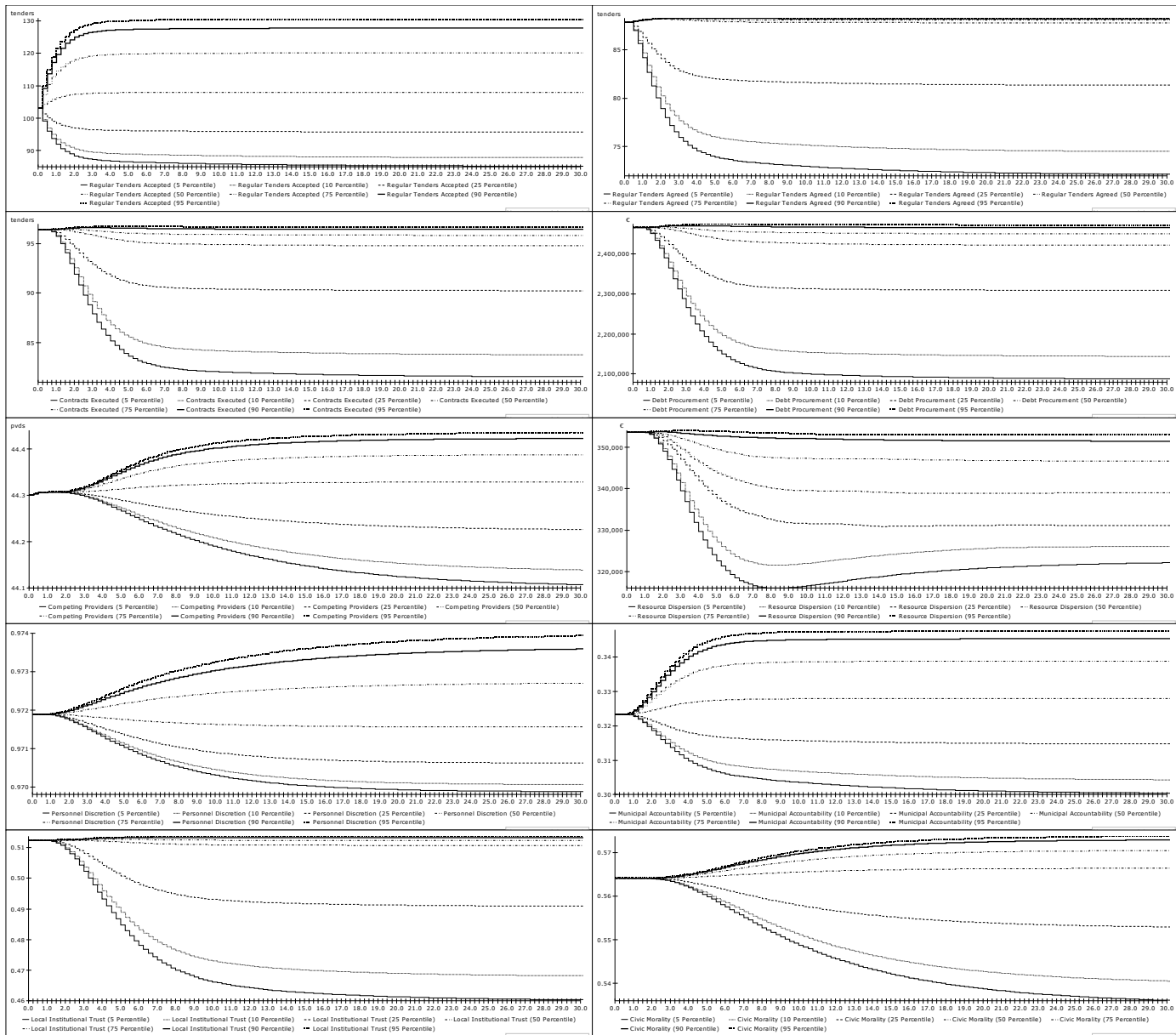


Figure C. Sensitivity test of 'Probability of corruption in the evaluation phase' (expected value: 2.44; standard deviation: 4; lower limit: 0; upper limit: 4).

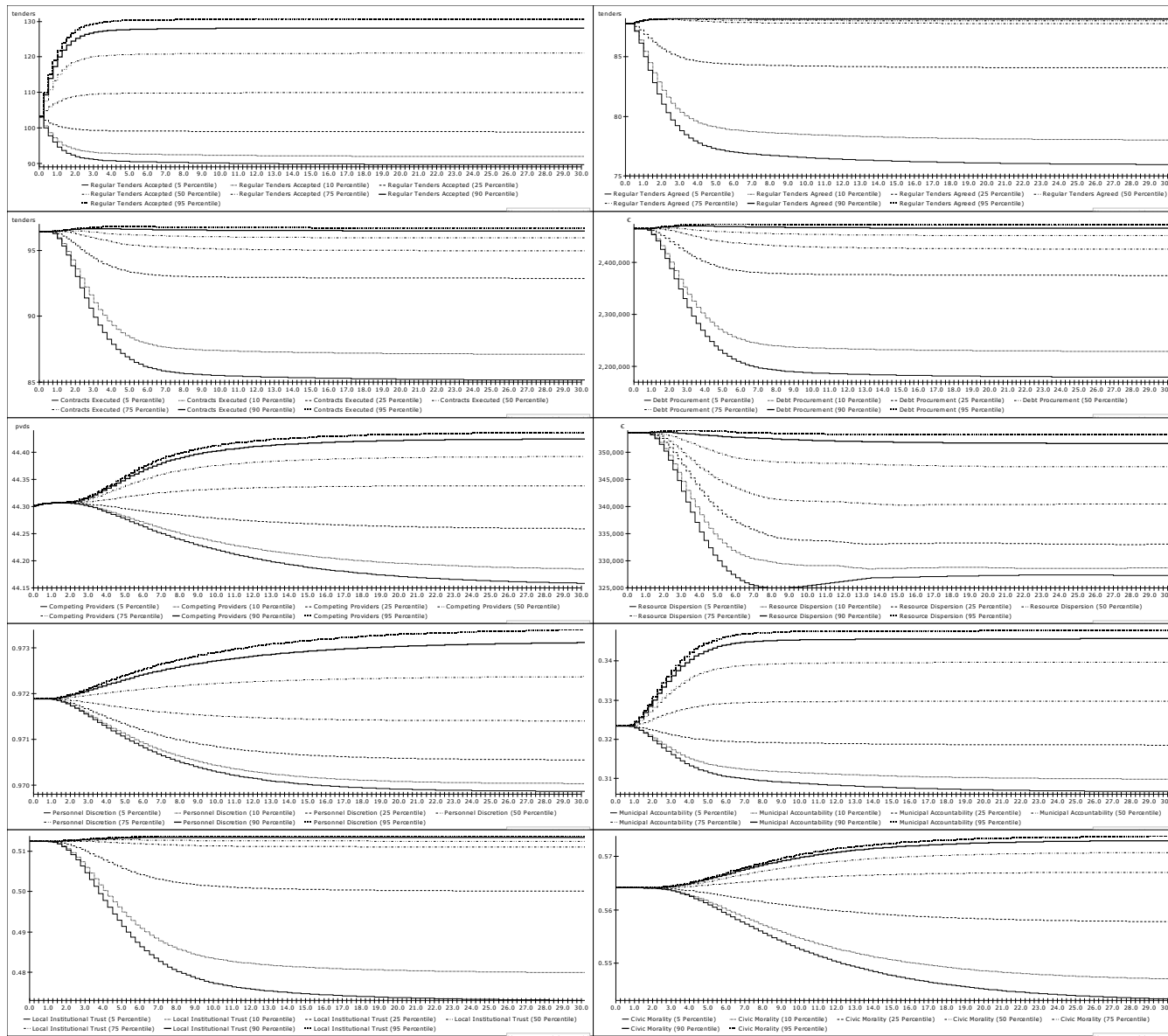


Figure D. Sensitivity test of 'Weight of corruption in the evaluation phase' (expected value: 2.67; standard deviation: 4; lower limit: 0; upper limit: 4).

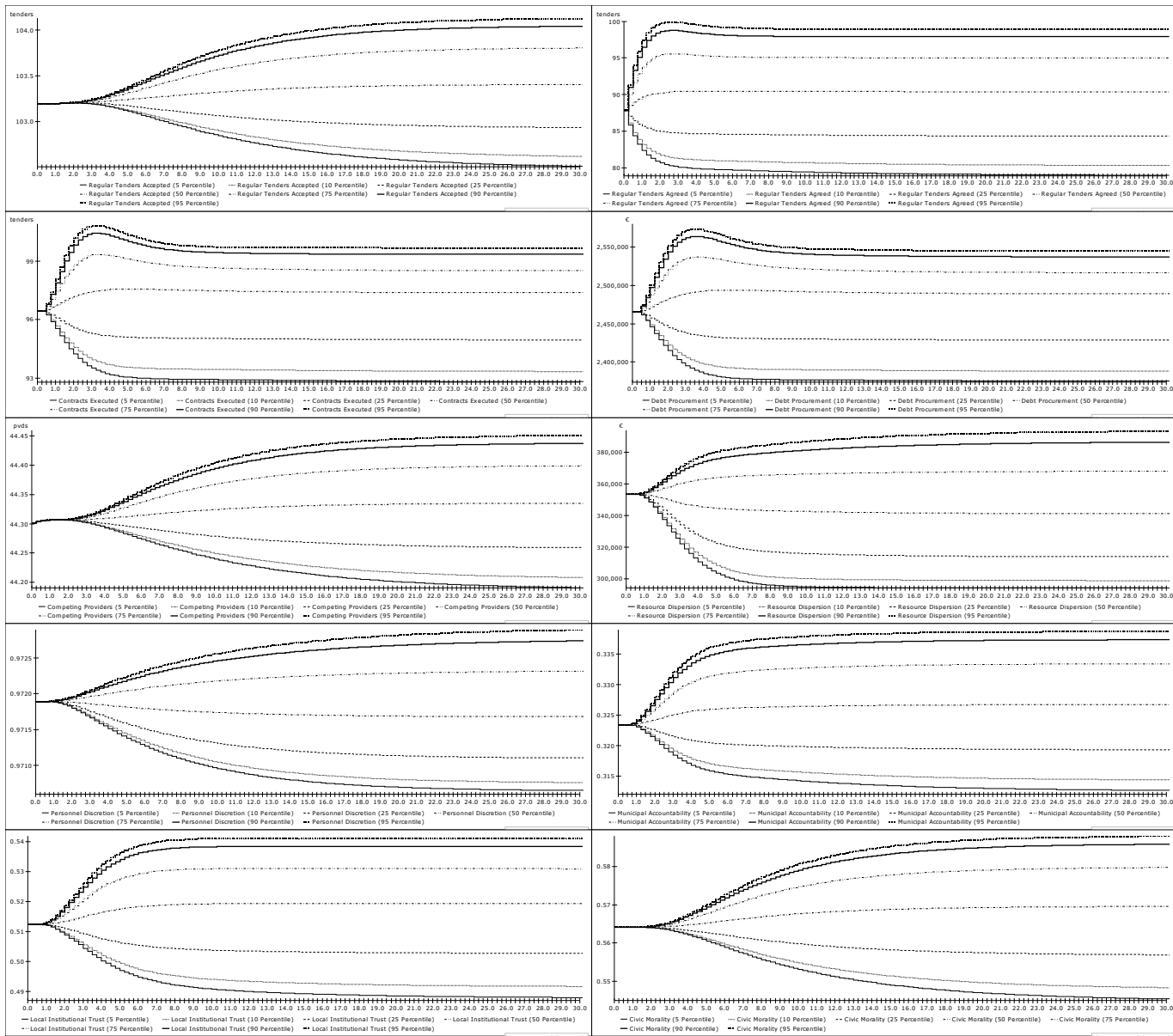


Figure E. Sensitivity test of 'Probability of corruption in the awarding phase' (expected value: 2.50.; standard deviation: 4.; lower limit: 0; upper limit: 4).

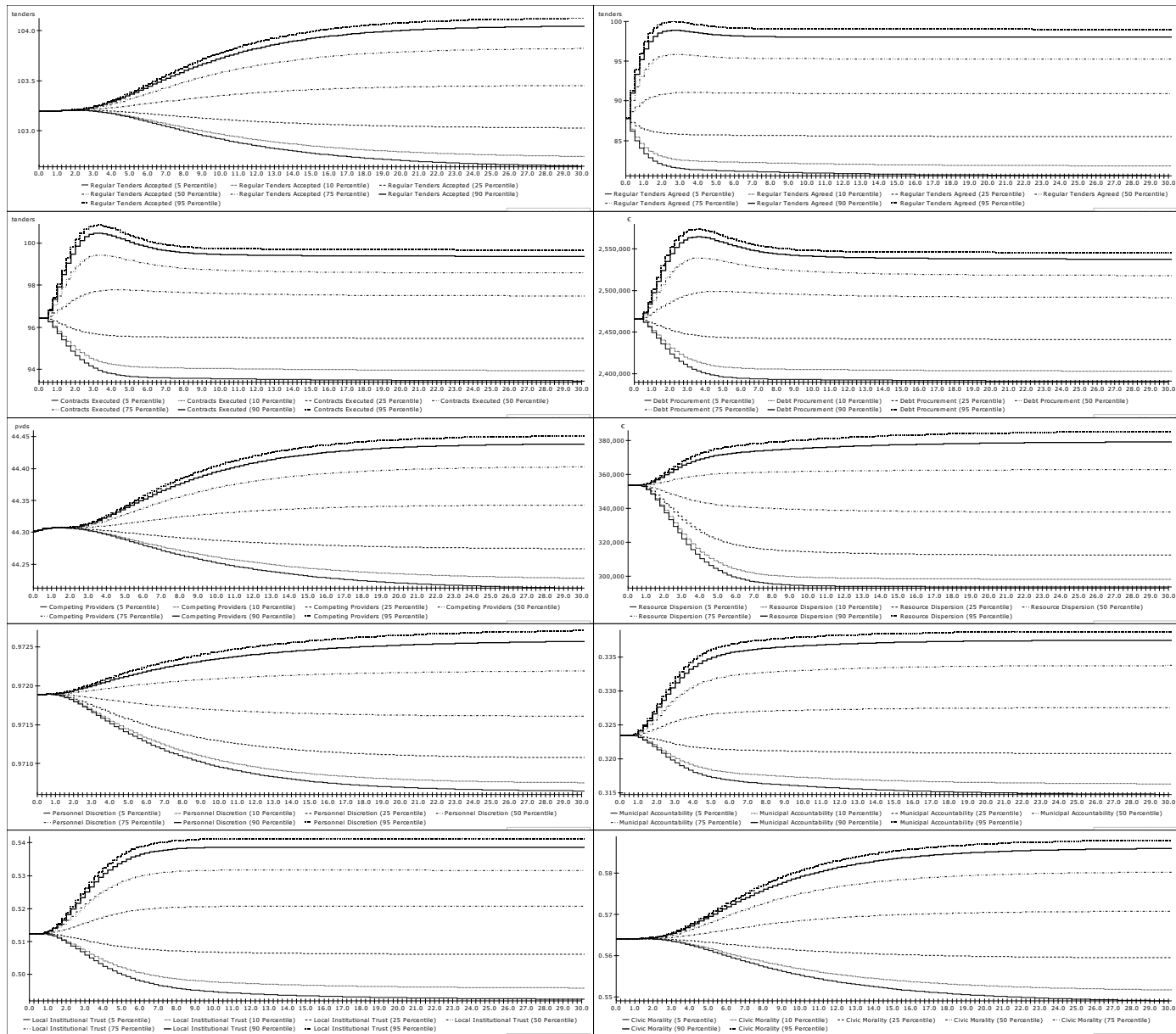


Figure F. Sensitivity test of 'Weight of corruption in the awarding phase' (expected value: 2.67.; standard deviation: 4.; lower limit: 0; upper limit: 4).

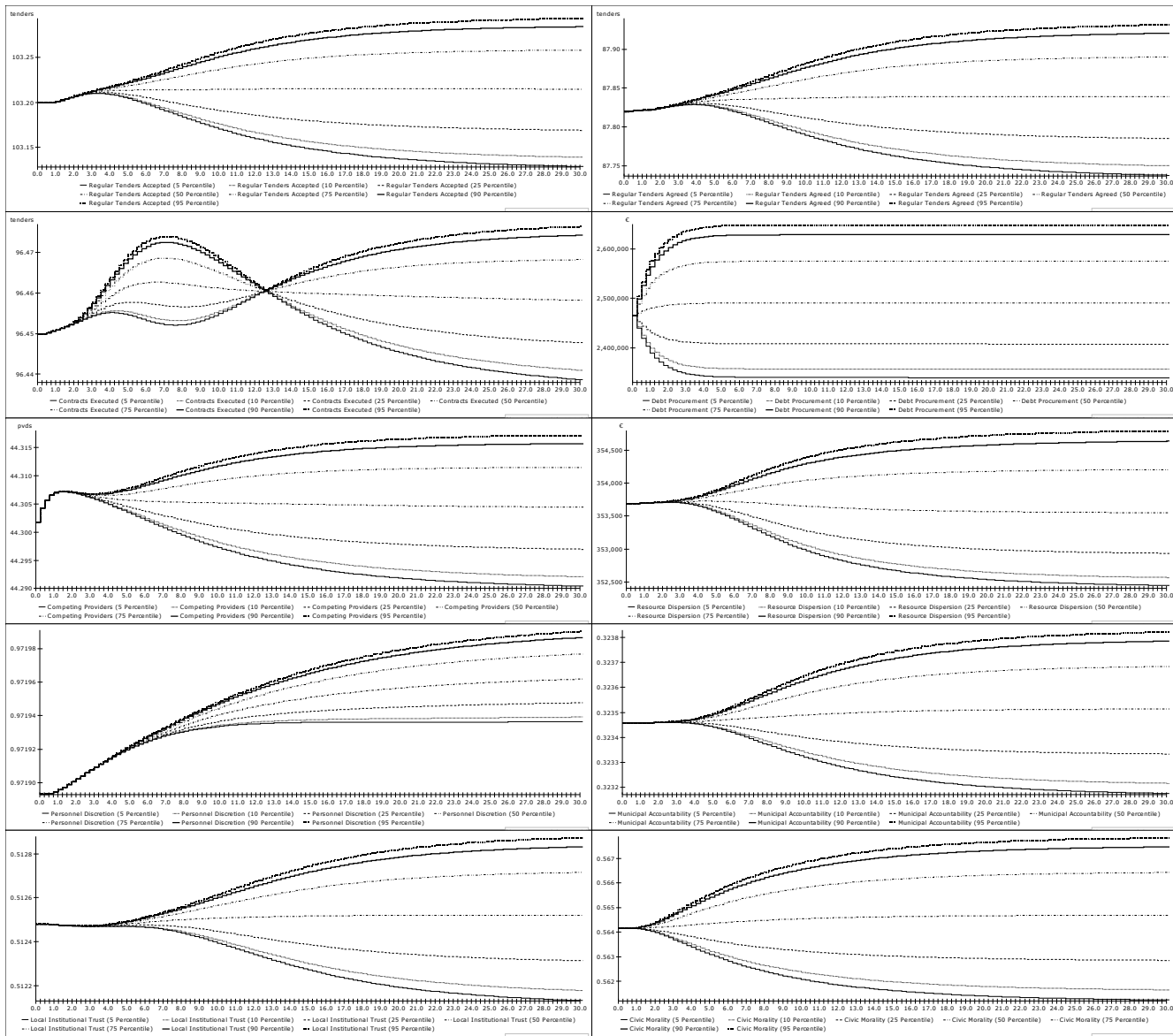


Figure G. Sensitivity test of 'Probability of corruption in the post-awarding phase' and of 'Weight of corruption in the post-awarding phase' (for both the parameters, expected values: 1.67.; standard deviation: 4.; lower limit: 0; upper limit: 4).

- MODEL OF CHAPTER 7

As far as the *direct extreme-condition test* (Barlas, 1996) is concerned, it was evaluated as plausible that, coherently with the reality, most of the overall municipal personnel endowment accumulates into the respective trained categories as long as the ‘Training Capacity’ sufficiently covers the ‘Desired training capacity’. Initialising the model in equilibrium, the assumption was successfully verified by linking the ‘Desired Training Capacity Perceived by the Municipality’ to the ‘Training Capacity’ level, in quality of target of the related first-order information delay.

The *indirect extreme-condition test* (Barlas, 1996) was performed by assuming the variable ‘Competence evanescence time’ to be very short, namely one year. Initialising the model in equilibrium, the internal composition of Mgrs. and PEs starts to change in favour of the non-trained categories, as a result of the faster degradation of the HRs’ skills. This consequently pushes the overall system to stabilise itself at the vicious state in which all the available Mgrs. and PEs are assimilated into the non-trained groups – cf. Table II –, thus implying an increase of the risk of fiduciary practices both in recruitment and in career progression. As the change is about the internal composition only, the number of vacancies is not influenced.

Since the simple absence of any error notification by the used modelling software is not enough to corroborate the *consistency of the measure* units with the reality, for this validation test it is suggested to read the Appendix B.

The *behavior sensitivity tests* (Barlas, 1996) were realised with the aim to corroborate how sensitive the levels of trained and non-trained PEs and Mgrs. are compared to variations of significant parameters. ‘Latin Hypercube’ is the sampling method adopted, as it ensures the representativeness of the samples of the selected parameters for the probability distribution found. 40 runs were performed, as suggested by the default settings of the software. For the sake of simplicity, the identified parameters were considered as normally-truncated distributed, according to the range within which they were assumed to vary. The expected values equal the actual ones which were used in the model, and the standard deviations were set sufficiently large to corroborate their impact on the model, according to the opportune upper and lower limits.

Structural examinations revealed that some significant exogenous variables specifically affect the level variables selected. More precisely, the sensitivity tests were performed in relation to five key-stock variables, that is: ‘Trained PEs’, ‘Non-Trained PEs’, ‘Trained Mgrs’, ‘Non-Trained Mgrs’, ‘Trust in Local Politics’. These stocks are sensitive to the probability and weight

scores of clientelism and patronage – cf. the Figures H, I, J, K, L being showed below. Moreover, the overall system is strongly sensitive to the ‘Competence evanescence time’, which makes the quantitative and qualitative depletion of the municipal HR faster and faster as it becomes shorter and shorter.

Table II. Indirect extreme condition test – Competence evanescence time = 1 year.

Time	Trained PEs	Non-Trained PEs	Trained Mgrs	Non-Trained Mgrs
year	person			
0	29.2700	60.7300	1.4200	2.3600
1	8.6379	81.3607	0.4205	3.3613
2	3.7722	86.2254	0.1845	3.5982
3	2.6080	87.3892	0.1279	3.6553
4	2.3264	87.6719	0.1141	3.6694
5	2.2655	87.7520	0.1107	3.6730
6	2.2654	87.8066	0.1097	3.6740
7	2.2705	87.8747	0.1094	3.6744
8	2.2708	87.9529	0.1092	3.6745
9	2.2652	88.0311	0.1091	3.6746
10	2.2555	88.1006	0.1091	3.6747
11	2.2445	88.1568	0.1091	3.6747
12	2.2344	88.1988	0.1090	3.6748
13	2.2262	88.2285	0.1090	3.6748
14	2.2201	88.2485	0.1090	3.6748
15	2.2159	88.2616	0.1090	3.6748
16	2.2131	88.2700	0.1090	3.6748
17	2.2113	88.2753	0.1090	3.6748
18	2.2102	88.2788	0.1090	3.6748
19	2.2095	88.2810	0.1090	3.6748
20	2.2090	88.2825	0.1090	3.6748
21	2.2087	88.2835	0.1090	3.6748
22	2.2085	88.2841	0.1090	3.6748
23	2.2084	88.2846	0.1090	3.6748
24	2.2083	88.2849	0.1090	3.6748
25	2.2083	88.2851	0.1090	3.6748
26	2.2082	88.2852	0.1090	3.6748
27	2.2082	88.2853	0.1090	3.6748
28	2.2082	88.2854	0.1090	3.6748
29	2.2082	88.2854	0.1090	3.6748
30	2.2082	88.2855	0.1090	3.6748

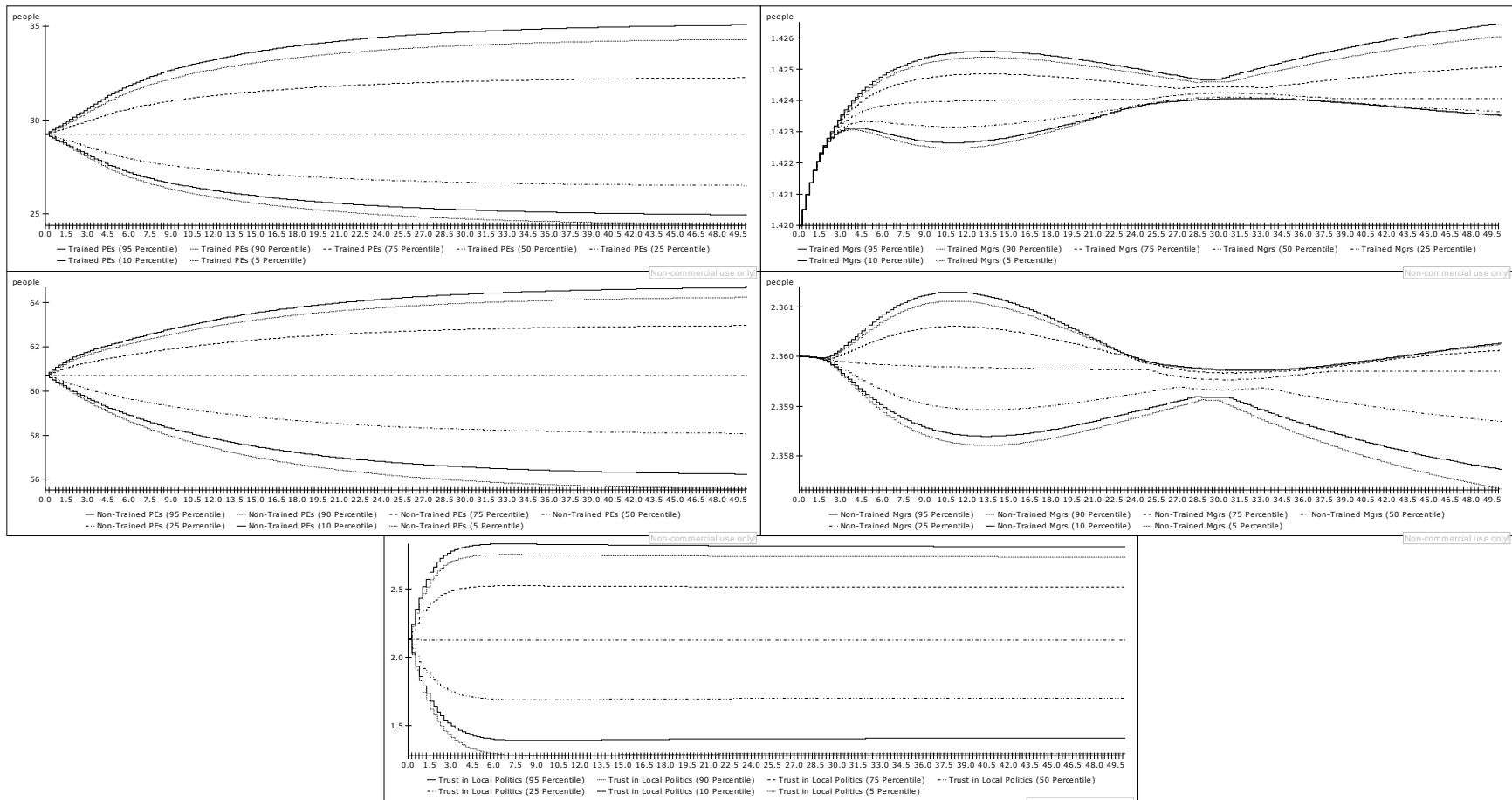


Figure H. Sensitivity test of 'Probability of corruption in recruiting' (expected value: 2; standard deviation: 4; lower limit: 0; upper limit: 4).

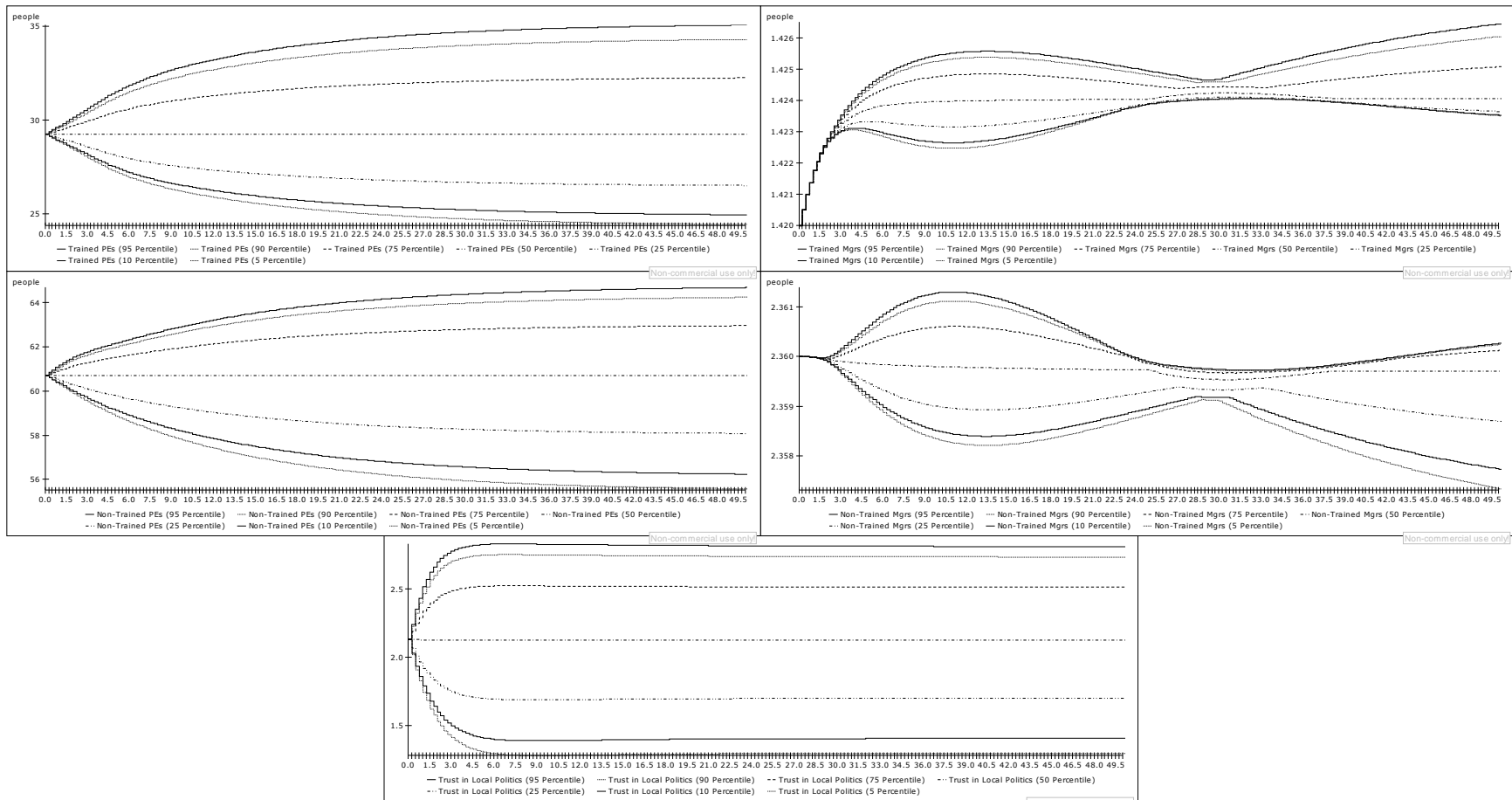


Figure I. Sensitivity test of 'Weight of corruption in recruiting process' (expected value: 2; standard deviation: 4; lower limit: 0; upper limit: 4).

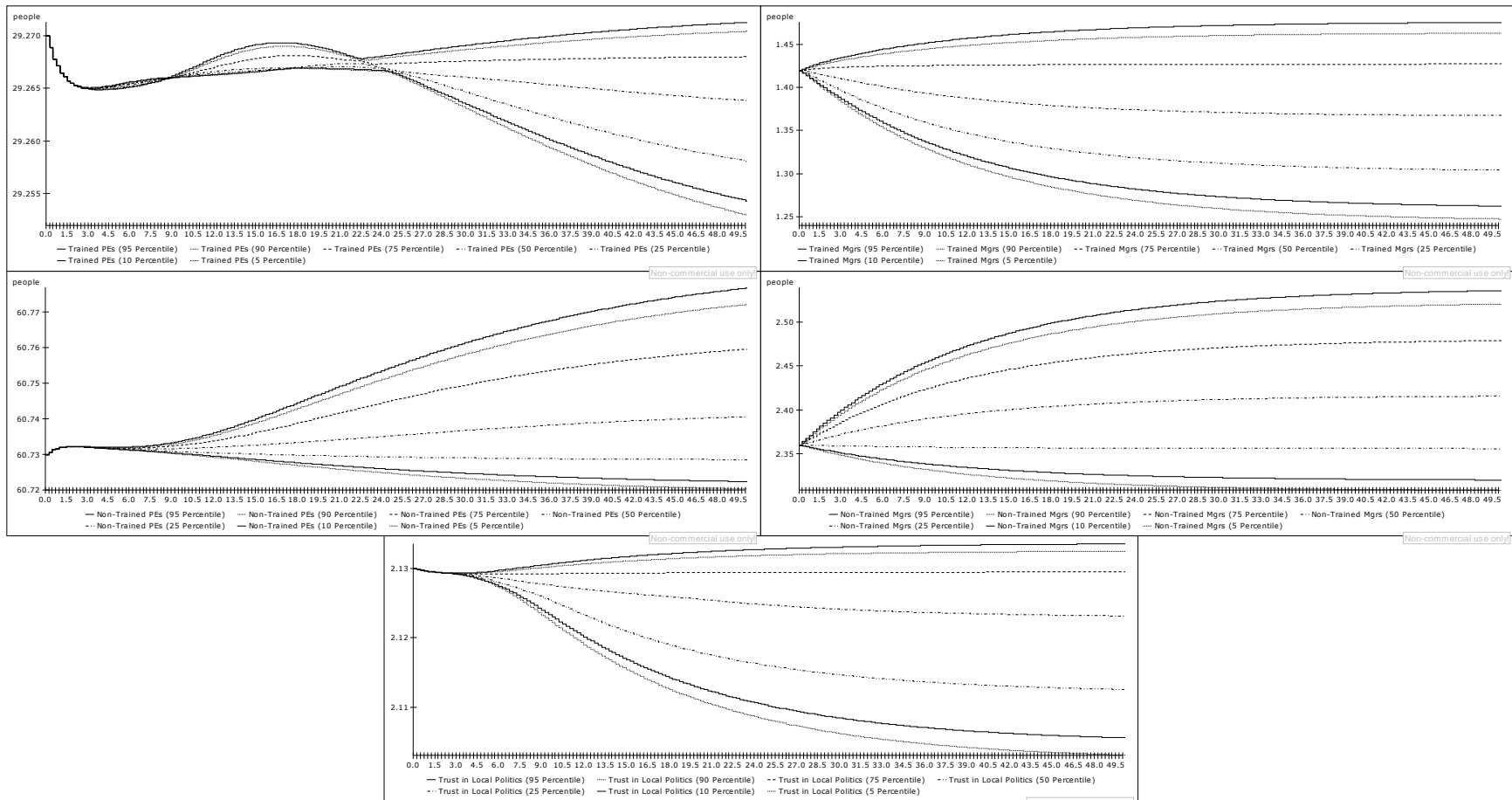


Figure J. Sensitivity test of 'Probability of corruption in career progression' (expected value: 1; standard deviation: 4; lower limit: 0; upper limit: 4).

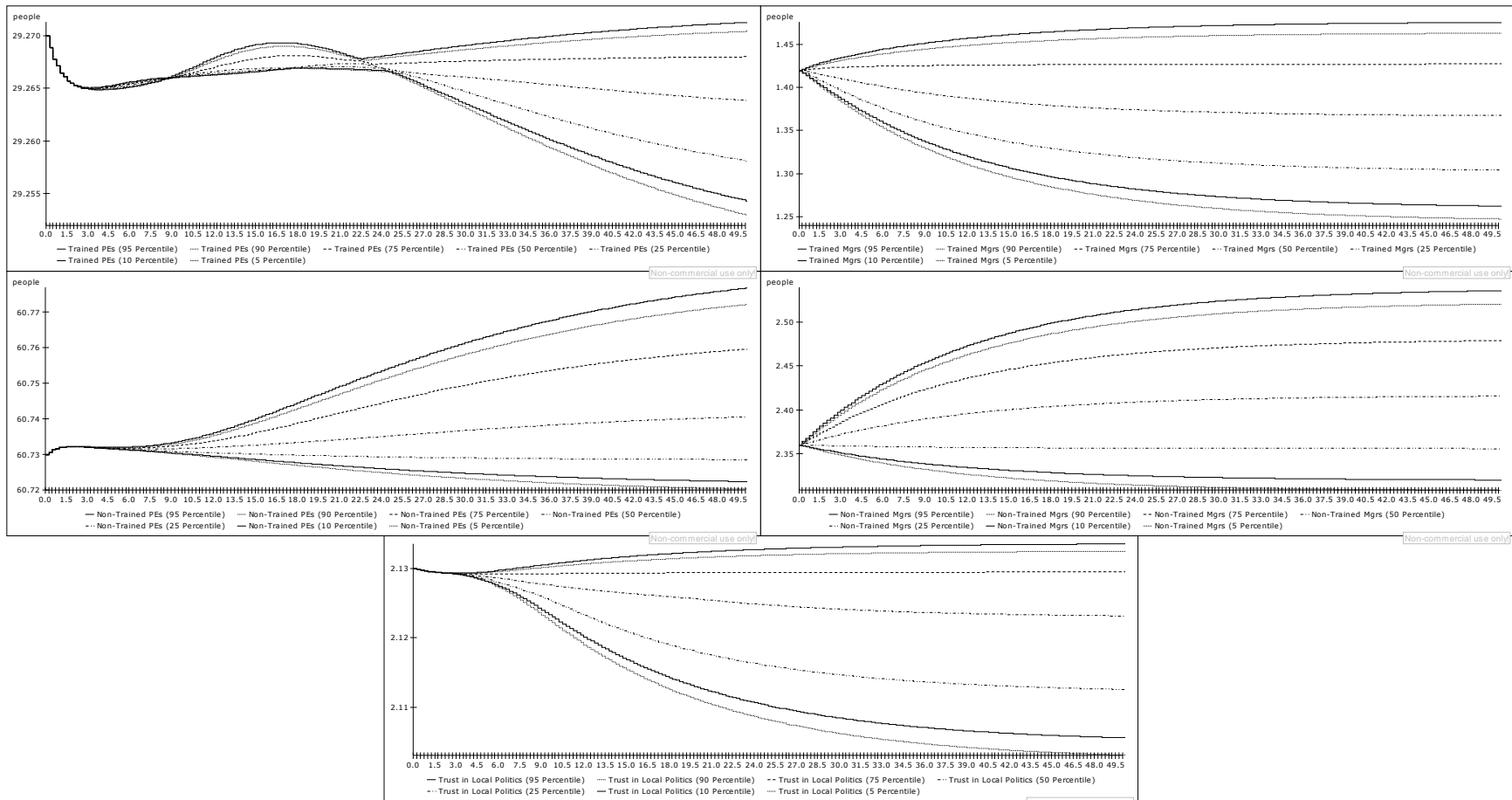


Figure K. Sensitivity test of 'Weight of corruption in career progression' (expected value: 1; standard deviation: 4; lower limit: 0; upper limit: 4).

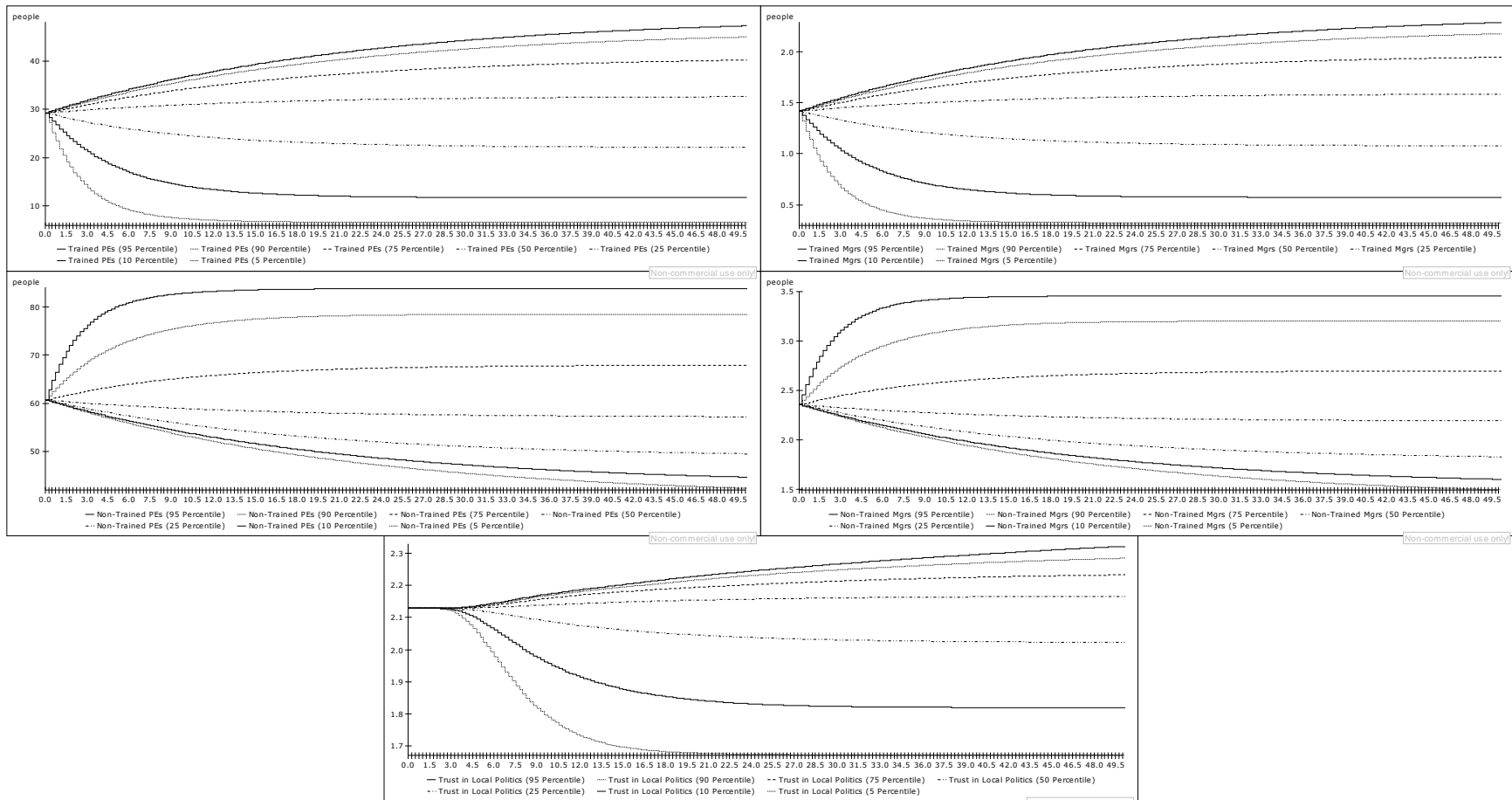


Figure L. Sensitivity test of 'Competence evanescence time' (expected value: 20 yrs.; standard deviation: 20 yrs.; lower limit: 0 yrs.; upper limit: none).