

Change Management in Greek State-Owned Enterprises: the Role of
Archaic Hellenic Philosophy and the Adoption of Business Process
Management

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Abstract

This thesis presents and discusses the findings from research in Change Management (CM) in Greek State Owned Enterprises (SOEs). These organisations are currently under great pressure from the state to implement changes with the aim to improve their competitiveness, increase profitability, and become non-reliant on government rescue funds. Previous reform policies have been unsuccessful, mainly due to direct political intervention in the operation of the Greek SOEs, bureaucracy, ineffective recruitment, lack of employee participation in the management of the organisations, and resistance to privatisation efforts. The recent economic crisis in Greece and the imposition of austerity measures has led to reductions in salaries and a diminution in governmental financial support to SOEs, and the abolition of the permanent employment status of new recruits. The author's work experience, combined with extensive literature review suggested that Ancient Greek Philosophy (AGP) could play an important cultural role in influencing the beliefs, and attitudes of management and staff working in Greek organisations. Greek SOEs are adopting Business Process Management (BPM), which among other contemporary management tools is a method for both implementing change and operational improvements. The research concentrates on: (i) the facilitating or inhibiting role of AGP in bringing about change; and (ii) the impact of adopting BPM as a method of promoting change in Greek SOEs. The theoretical framework of context (why), content (what), and process (how) in the management of strategic and operational change and competitiveness, developed by Pettigrew et al. (1989) was used to investigate change in Greek SOEs. A deductive followed by an inductive analysis of the data was conducted to extend the model of Pettigrew et al. (1989) to account for both the influence of AGP and the impact of BPM in implementing change in Greek SOEs. The Ancient belief that change is unavoidable could facilitate change, while push for change that is not associated with long-term benefit to both the organisation and the employees could face great resistance. A performance related pay system using monetary reward based incentives to promote business process implementation, and a fair bonus scheme to encourage and reward achievement is required.

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Table of Contents

Number	Title	Page
	Acronyms	
	List of Tables	
	List of Figures	
1	Introduction	1
1.1	Need for Change in Greek State-Owned Enterprises	2
1.2	Change Management Theoretical Approach	3
1.3	Business Process Management	6
1.4	Ancient Greek Philosophy	7
1.5	Research Layout	11
1.6	Outline of the Thesis	13
2	Ancient Greek Philosophy and Change Management	15
2.1	Background	16
2.1.1	CM in Aerospace	16
2.1.2	Greek SOEs	19
2.1.3	Aerospace Industry in Greece	25
2.1.4	Economic Crisis	27
2.2	Archaic Hellenic Philosophical background	29
2.3	The cultural roots of change from Ancient Greece	32
2.4	The influence of Ancient Greek Philosophy on Change Management	37
2.4.1	Context of Change	37
2.4.2	Content of Change	43
2.4.3	Process of Change	48
2.5	Summary	51
3	Business Process Management and Change Management	59
3.1	Importance of Change Management (CM)	60
3.2	Importance of Business Process Management (BPM)	62
3.2.1	Definitions and Historical Review	62
3.2.2	Business Processes	64
3.2.3	Activities – Tasks	68
3.2.4	Resources for BPM	69
3.2.5	Business Process Modelling	69
3.2.6	Business Process Analysis	70
3.2.7	Business Process Optimisation	71
3.3	Business Process Management Impact on Change Management	72
3.3.1	Context of Change	74
3.3.2	Content of Change	87
3.3.3	Process of Change	95
3.4	Summary	100
4	Research Methodology	105
4.1	Theoretical Framework of Context, Content, and Process of Change	110
4.2	Research Philosophy	119
4.3	Research Approach	121
4.4	Research Design (methodological choice)	124

4.5	Research Strategy	125
4.6	Gaining Access	127
4.7	Ethical Considerations	129
4.8	Selection of Sample	130
4.9	Data Collection	134
4.9.1	Participant observation	134
4.9.2	Interviews	137
4.9.3	Socratic Dialogue	139
4.9.4	Company records and documents	144
4.9.5	Timeline of data collection	144
4.10	Qualitative Data Analysis	145
4.11	Critique	146
4.12	Concluding Remarks of the Chapter	148
5	The AERO SOE	149
5.1	Inner Context	151
5.1.1	Historic Perspectives	151
5.1.2	Organisation Structure	154
5.1.3	Internal Politics	158
5.1.4	Culture	162
5.2	Outer Context	164
5.2.1	Business Environment	164
5.2.2	Political Environment	165
5.3	Strategic Content of Change at AERO	166
5.3.1	Prior Competitive Strategy	166
5.3.2	Strategy Components	168
5.3.3	Measurement and Evaluation	171
5.4	Change Program at AERO	172
5.4.1	Triggers for Change	172
5.4.2	Implementation Process	172
5.4.3	Technology Availability	183
5.5	Critique and Concluding Remarks of the Chapter	184
5.5.1	Summary of the Deductive Analysis of Data	187
6	Research Results on Change Management from an Ancient Greek Philosophical Basis	191
6.1	The Context of Change in Greek SOEs	193
6.1.1	Change is Unavoidable	193
6.1.2	Urgency as a motivator for change	193
6.1.3	Sense of Direction and Purpose	194
6.1.4	Individual Benefits	195
6.1.5	Change for High Quality Output	196
6.2	The Content of Change in Greek SOEs	197
6.2.1	Implications of Change Being Unavoidable	197
6.2.2	Activation of Change Agents	199
6.2.3	Long-Term Change	199
6.2.4	Pulling Rather than Pushing for Change	200
6.2.5	Internal Marketplace of Processes	201
6.3	The Process of Change in Greek SOEs	203
6.3.1	Process of Change via the Sense of Urgency and External Threats	203
6.3.2	Process of Change through Change Agents	204

6.3.3	Method for the Pulling Mechanism of Change	205
6.3.4	Leadership for Change	206
6.3.5	Process for Quality	207
6.4	Summary of Results	209
6.4.1	Original Grouping of AGP Factors	209
6.4.2	Data Structure	213
6.4.3	Extension to Pettigrew et al.'s (1989) Model with AGP factors	216
7	Research Results about the Impact of Business Process Management on Change Management	221
7.1	Context of Change in Greek SOEs	222
7.1.1	From a System of Procedures to a Process-Based System	223
7.1.2	Efficient Resource Allocation	223
7.1.3	Avoidance of Value Conflicts	224
7.1.4	Meaningful Determination of Sequence of Activities	225
7.1.5	Value-Adding	226
7.2	Content of Change in Greek SOEs	227
7.2.1	Establishment of Business Processes	227
7.2.2	Reduction of Resistance to Change	229
7.2.3	Operational Effectiveness	229
7.2.4	Top Management Commitment	230
7.2.5	Internal Marketing of Processes	231
7.3	Process of Change in Greek SOEs	234
7.3.1	Reduction of Resistance to Change	234
7.3.2	Resource Allocation Improvement	235
7.3.3	Top Management Commitment Actualisation	236
7.3.4	Transforming the Corporate Image	237
7.4	Summary of Results	239
7.4.1	Original Grouping of BPM Factors	239
7.4.2	Data Structure	243
7.4.3	Extension to Pettigrew et al.'s (1989) Model with BPM factors	247
8	Conclusions and Contribution to Knowledge: a New Model of Change for the Greek SOEs	251
8.1	The New Model of Change for the Greek SOEs	253
8.2	Discussion of Findings	255
8.2.1	Comparison of the deductive findings with the original model	255
8.2.2	Comparison of the model extension with findings from previous research on the impact of AGP on CM	256
8.2.3	Comparison of the model extension with findings from previous research on the impact of BPM on CM	258
8.3	Validity and Reliability of the New Model of Change	261
8.4	Conclusions	267
8.5	Future Work	270
	References	273

Acronyms

ABPMP	Association of Business Process Management Professionals
AERO	Pseudonym of the Greek SOE, where most of the research work was conducted
AG	Research Gap that was addressed by the first primary research question AQ
AQ	First primary research question
BG	Research Gap that was addressed by second primary research question BQ
BPM	Business Process Management
BPR	Business Process Reengineering
BQ	Second primary research question
BSC	Balanced Scorecard
CANDO	Clean, Arrange, Neatness, Discipline, and On-going improvement
CEO	Chief Executive Officer
CIO	Chief Information Officer
CM	Change Management
CRM	Customer Relationship Management
EASA	European Aviation Safety Agency
EC	European Commission
ECB	European Central Bank
EEC	European Economic Community
ERP	Enterprise Resource Planning
EU	European Union
euro (€)	Official currency of the Eurozone
HAF	Hellenic Air Force
HR	Human Resources
HRADF	Hellenic Republic Asset Development Fund
ILO	International Labour Office
IMF	International Monetary Fund
IP	Intrapreneurship
IS	Information Systems
ISO	International Organization for Standardization
IT	Information Technology
KPI	Key Performance Indicator
Ltd	Limited Liability Company
MRP	Material Requirements Planning
NADCAP	National Aerospace and Defence Contractors Accreditation Program
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organization
NHS	National Health Service
OECD	Organisation for Economic Co-operation and Development
PhD	Philosophy Doctorate
S.A.	Société Anonyme
SOE	State Owned Enterprise
SOP	Standard Operating Procedures
TQM	Total Quality Management
USAF	United States Air Force
WfMC	Workflow Management Coalition

List of Tables

Number	Title	Page
Chapter 2		
2.1	Major change factors in the Aerospace industry	53
2.2	Unique characteristics of the Greek SOEs and the potential influence of AGP on the organisational culture for change	54
2.3	The changes introduced in Greek SOEs due to the recent economic crisis, and their immediate effects	55
2.4	Factors that originate from AGP and have a cultural influence on the context (why) of change for Greek organisations (see section 2.4.1), derived from the model of Pettigrew et al. (1989)	56
2.5	Factors that originate from AGP and have a cultural influence on the content (what) of change for Greek organisations (see section 2.4.2), in line with the model of Pettigrew et al. (1989)	57
2.6	Factors that originate from AGP and have a cultural influence on the process (how) of change for Greek organisations (see section 2.4.3), derived from the model of Pettigrew et al. (1989)	58
Chapter 3		
3.1	Comparison between BPM and BPR	64
3.2	Typical support processes found in organisations	66
3.3	How do adopters value innovative business process attributes?	79
3.4	Reasons for implementing CM in SOEs	100
3.5	Factors that originate from BPM and have an impact on the context (why) of change in large organisations, derived from the model of Pettigrew et al. (1989)	102
3.6	Factors that originate from BPM and have an impact on the content (what) of change in large organisations, derived from the model of Pettigrew et al. (1989)	103
3.7	Factors that originate from BPM and have an impact on the process (how) of change in large organisations, derived from the model of Pettigrew et al. (1989)	104
Chapter 4		
4.1	More recent use of the model of context, content, and process of change of Pettigrew et al. (1989) in public sector organisations	115
4.2	Alternatives to the model context, content, and process of change of Pettigrew et al. (1989) considered to structure the study of change in the Greek SOEs	117
4.3	Timeline of collecting data for this research project	144
Chapter 5		
5.1	Timeline of the generation of some of the major business processes at AERO S.A.	173
5.2	Definition of major business processes in AERO S.A. and their contribution to achieving strategy objectives	174
5.3	Participation of directorates in the creation of products and services development process at AERO S.A., analysed into the constituent processes	180

5.4	Alternative categorisation for the business processes under the context, content, and process of change model of Pettigrew et al. (1989)	187
5.5	Deductive analysis of data using Pettigrew et al.'s (1989) context, content, and process in the management of strategic and operational change and competitiveness	180
Chapter 6		
6.1	Factors that originate from Ancient Greece which could have a cultural impact on the context (i.e. why) of change in contemporary Greek SOEs	210
6.2	Factors that originate from Ancient Greece which could have a cultural impact on the content (i.e. what) of change in contemporary Greek SOEs	211
6.3	Factors that originate from Ancient Greece which could have a cultural impact on the process (i.e. how) of change in contemporary Greek SOEs	212
6.4	Factors from the data analysis in AERO concerning the influence of AGP on change and 2nd order themes	213
Chapter 7		
7.1	Factors of BPM categorised under the context (i.e. why) of change for the Greek SOEs	240
7.2	Factors of BPM categorised under the content (i.e. what) of change for the Greek SOEs	241
7.3	Factors of BPM categorised under the process (i.e. how) of change for the Greek SOEs	242
7.4	Factors from the data analysis in AERO concerning the influence of AGP on change and 2nd order themes	243
Chapter 8		
8.1	Conceptual comparisons between the inductive analysis of the impact of AGP on change in AERO with findings from previous research	256
8.2	Conceptual comparison between the inductive analysis of the impact of BPM on change in AERO with findings from previous research	259

List of Figures

Number	Title	Page
Chapter 2		
2.1	Implementation of change through a Socratic dialogue loop framework	48
Chapter 3		
3.1	Receptivity context of change in large public organisations	75
Chapter 4		
4.1	The research onion	106
4.2	The research methodology that was adopted in this research project	107
4.3	Step-by-step implementation of the research methodology in the current research project	109
4.4	Model of context, content, and process in the management of strategic and operational change and competitiveness (Pettigrew et al., 1989)	110
4.5	The longitudinal nature of the model of Pettigrew et al. (1989) and the equal importance of context, content, and process	113
4.6	Sample demographics according to position and business process ownership	132
4.7	Sample spread according to time of employment in the organisation (three decades categorisation)	133
4.8	Sample spread according to time serving at the particular job role (from 1 to 6 years)	134
Chapter 5		
5.1	Context, content, and process in the management of strategic and operational change and competitiveness (Pettigrew et al., 1989)	150
5.2	Hierarchical structure in AERO S.A.	155
5.3	Customer satisfaction process at AERO S.A.	176
5.4	Products and services development process at AERO S.A.	177
5.5	Products and services procurement process at AERO S.A.	178
5.6	Advertising process at AERO S.A.	181
5.7	IT services management process at AERO S.A.	182
Chapter 6		
6.1	The role of Ancient Greek Philosophy in facilitating or inhibiting change in the Greek SOEs	217
Chapter 7		
7.1	The method of implementing change in Greek SOEs using Business Process Management	248
Chapter 8		
8.1	The new extended conceptual model of change for Greek SOEs	253

Chapter 1. Introduction

1.1 Need for Change in Greek State-Owned Enterprises

The aim of Greek State-Owned Enterprises (SOEs) is to become competitive in open markets (Mylonas and Joumard 1999; Tsoukas, 2005). According to Megginson and Price (2000), moving from the protectionist environment of state ownership and monopoly, towards free market competition can generate the following effects:

- Create revenue for the state;
- Encourage economic efficiency (defined as the use of resources so as to maximise the production of goods and services; Schumpeter, 1983);
- Decrease inflexible government interference in the economy;
- Widen the ownership status through shares;
- Render the SOEs competitive and open market oriented.

The European Union (EU) and Greece's international creditors have been exerting much pressure to move forward with reforms in the public sector and the associated SOEs, since the mid-nineties (Papazoglou, 2010; Mylonas and Joumard, 1999). Reforms in SOEs can improve productivity in important sectors of the economy and lower state costs. Whittaker (1947) considered productivity to be one of the most important organisational metrics (it is computed by dividing average output per period, by the total costs incurred, or resources, such as capital, energy, material, personnel, consumed in that period). Mylonas and Joumard (1999) have attributed the traditionally poor economic performance of Greek SOEs to the existence of: (a) high labour costs; (b) low productivity; (c) obsolete technology; (d) intense intervention by political parties providing favouritism; (e) poor management; and (f) large public service commitments without adequate financial compensation. Typically, public service commitments of Greek SOEs refer to the provision of services that are not economically viable, but are needed for the welfare of the society. As a result, the quality of service from Greek SOEs is generally viewed as unsatisfactory.

The Greek government passed legislation in 1996 with the aim of changing management practices in SOEs and harmonising them with those of the private sector (Kaidatzis, 2005; Mylonas and Joumard 1999). Greek SOEs were transformed into Société Anonymes (S.A.), but this was not effective (Tsoukas, 2005). Bartunek and Moch (1994) argued that the impact of separating the SOEs from the state, by simply converting them into autonomous legal entities, is very small. The interactions between these companies with the general political system, and the underlying cultural status, are much more important than their legal status. Greek SOEs are companies, from the legal point of view (Papathanasiou,

1985). However, they are not autonomous units, in terms of economic decision-making and control (Papazoglou, 2010; Tsoukas, 2005). Politicians' patronage and intervention in company affairs do not allow SOEs to have an independent chain of command to achieve business objectives (Adam, 2005; Tsoukas, 2005).

The most notable reforms of Greek SOEs during the last decade were the partial privatisations of the public power corporation, and the national telecommunications organisation. Shares of these companies were made available for private ownership (Greek state laws 4092/2012, 3676/2008). Nevertheless, privatisation efforts have not moved very fast during the last two decades. The DAF/COMP37 (2009) report emphasised the importance of removing monopolistic barriers relating to Greek SOEs, to enable privatisation to be effective. Legislation, such as the Greek Competition Act 703/1977 exists to control oligopolies and monopolies, and protect free competition. This legislation applies to Greek SOEs. However, the size of most Greek SOEs and the close relationships with the government, still pose a large barrier to developing a free market orientation (Kaidatzis, 2005). Consequently, reforms in the role and management of Greek SOEs need to focus on deep underlying issues that require to be addressed: (a) authority relationships; (b) forms of employee participation in decision making; (c) management – employees' interdependence; and (d) the role of the government (Tsoukas, 2005). How to manage change in Greek SOEs is the focus of this research project.

1.2 Change Management Theoretical Approach

The need to implement operational changes in the Greek SOEs has stemmed mainly from the organisational environment (i.e. the government, the EU, and the market). Change Management (CM) is a process of developing approaches to implementing changes in organisations (Hayes, 2010). The management of change in Greek SOEs is the central research topic of this thesis. The theoretical framework of context, content, and process in the management of strategic change developed by Pettigrew et al. (1989) was used as a framework to investigate change in Greek SOEs. According to Sminia (2016), the context, content, and process model of change developed by Pettigrew et al. (1989) is a milestone in the field of CM for large organisations owned or controlled by the state. The Greek SOEs are exclusively or largely controlled by the state. Pettigrew et al. (1992) argued that change in the

public sector and in the SOEs is a matter of understanding the particularities of these organisations in the current business and economic environment.

Change in large public sector organisations requires the conceptualisation of three main change perspectives (Pettigrew et al., 1989):

- Why is the change necessary? This refers to the context of change, which may be the national, economic, political, and social environment (outer context), as well as the organisational strategy, structure, culture, management, and politics of the organisation (inner context);
- What needs to change? This refers to the content of change, or the particular areas of the organisation and its operation that need to transform, and whether the nature of change is gradual or fast, or based on technological change;
- How should the change be implemented? This refers to the process of change, which recognises historical and continuing struggles for power accumulation by individuals and groups.

The theoretical framework of Pettigrew et al. (1989) adopts a strategic approach to change, which means that the theory focuses on critical processes that are associated with the high level objectives of the organisation (Kettinger et al., 1997). This theory creates a link between the initiatives for change and competitiveness, and the corporate strategy (Teng et al., 1998). The main purpose of Pettigrew et al.'s (1989) model is to comprehend change as it initiates from the top management. The top management can assess variations in the economic, business, and political conditions and implement new strategies in order to strengthen the competitiveness of the organisation. Organisational strategy is important, because it can either be: (a) the outcome of a sequential and planned search for best solutions to problems; (b) an adaptive method to fulfil the mission of the organisation; or (c) the collective sense making (Johnson, 1987). Focusing on what needs to change and how this change can be implemented should not undermine the reason why change is required (Pettigrew, 2005).

Pettigrew et al. (2001) argued that change has tended to neglect historical aspects (i.e. it is a-historical). Tsoukas (2012) suggested the following perspective in order to avoid the a-historical view of change:

- Phenomenological orientation is about considering the experiences of the stakeholders of change over time;
- Process orientation is the exploration of how people involved in change interact over time;

- Action orientation is inviting change participants to attend to their habitual ways of acting.

Clarkson (2007) argued that change in public sector controlled organisations can be influenced by the following factors:

- Hierarchy. The establishment of clear objectives transmitted from top management downwards, through a hierarchy has been positively associated with changing working practices, management of innovation, and team working (Wallace et al., 2001; Tsai, 2002; Redfem and Christian, 2003);
- Decentralisation (i.e. empowerment for action from a bottom up change implementation approach) can lead to higher job satisfaction and improve efficiency and levels of innovation (Love et al., 2002; Schmid, 2002; Greenhalgh et al., 2003);
- Ownership of processes and of the organisation itself in the public sector and SOEs can be difficult to define, resulting in managers pursuing objectives that are inconsistent (Stiffman et al., 2001; Daily et al., 2004);
- Human resource personnel can influence staff morale and increase commitment to work (Metcalf and Dick, 2001; Harris and Ogbonna, 2001);
- Internal climate can have a positive impact on employee satisfaction, morale, and innovation (Pool, 2000; Meyer et al., 2002; Greenhalgh et al., 2003);
- The organisational culture in the public sector can be supportive of change when top-down leadership exists, information systems are effective, and there is a clear human resource policy (Mannion et al., 2005);
- Organisational learning can increase the efficiency of the change process in SOEs, through inter-departmental communication, and by developing the skills of employees (Sheaff and Pilgrim, 2006);

Cunha and Tsoukas (2015) suggested that the originators of change in SOEs need to minimise the following symptoms, in order to eliminate barriers to change:

- Focusing only on the change of the structure of the organisation;
- Assuming that change management is merely a top-down approach;
- Attempting changes through an authoritarian and administrative perspective;
- Believing that changing systems, without changing themselves (i.e. their behaviours) is adequate.

Cunha and Tsoukas (2015) claimed that in many SOEs, people tend to use rules in a mindless way, in order to relieve themselves of anxiety. When this happens, a set of rules tend to be enforced by people who do not understand their purpose, and a perpetual and vicious cycle of mindless repetition can result in resistance to change.

1.3 Business Process Management

This section provides an introduction to Business Process Management as a method of change implementation. Business Process Management (BPM) is the process of building and perfecting the various business processes (Smith and Fingar, 2006); a process is a related sequence of work activities, which is performed across time and place, with a beginning, an end, and identifiable inputs and outputs (Davenport, 1993). One of the most recent governmental efforts to reform Greek SOEs has included the implementation of BPM (Greek Law 3429, Papoulias, 2005). By optimising and changing business processes in Greek SOEs, the objective is to turn historically government-funded organisations into self-sufficient commercial entities, capable of competing in the free market. Therefore, the main reason for including BPM in this research project is the Greek government's will to use BPM as a major method of stimulating change in Greek SOEs. The topic of CM has remained central in this research project. BPM has been regarded as the way of implementing change in the case of the Greek SOEs. Thus, the impact of BPM on CM in Greek SOEs has been explored.

Stoddard et al. (1996) argued that BPM goes hand in hand with CM through four key aspects:

- Cross-functionality, involving two or more functional areas in the organisation;
- The focus is on carrying out business processes rather than on technology or organisational structure;
- There is a continuous change in organisational design, culture, and information systems;
- Performance improvements in cost, quality, cycle-time, customer satisfaction, or market share.

BPM can reduce organisational and personal value conflicts (i.e. differences in the values of management such as devotion and hierarchy, and the values of individuals such as empowerment and independence), which can lead to increased job satisfaction (Dylag et al. 2013). As a result, performance can be improved and organisational change can be facilitated (Stoddard et al. 1996). Better process understanding can lead to a reduced resistance to change (Brokke and Sinnl, 2011). Continuous management commitment for the planning and execution of BPM is highly important and can facilitate change (Al-Mudimigh, 2007; Buchanan, 2007; Zampetakis, 2007). Change can be motivated by rewards and incentives, which can affect the speed of change and alter the Key Performance Indicators (KPIs) of business processes. KPIs are quantifiable measures of achievement, against operational goals, and are usually linked to the efficiency of business process outputs (Fitz-Gibbon, 1990). CM

can be affected by changes in process ownership, and the corresponding allocation of power to process owners, who will be responsible for improvements (Boyle, 1995; Willmott, 2002).

The impact of BPM on CM is examined using the research framework of Pettigrew et al. (1989). The aspects of BPM that were found to be relevant to CM were categorised under the context (why) of change, content (what) of change, and process (how) of change. The categorisations were used to explore how BPM could be adopted to facilitate change in Greek SOEs.

The next section provides an introduction and the reasons why the associated topic of Ancient Greek Philosophy (AGP) was considered necessary for the study of Change Management in Greek SOEs.

1.4 Ancient Greek Philosophy

Many authors (Cavarnos, 2000; Pearson, 2001; Oikonomou, 2006; Zacharia, 2008; Pantelis, 2008; Hodkinson, 2010; Tziovas, 2013) have suggested that Ancient Greek Philosophy (i.e. the love for wisdom in Ancient Greece, Toghias & Roussou, 1979) is a major influencing factor on modern Greek organisational culture. Organisational culture can be considered to be the human behaviours and interactions in an organisation, underpinning common values, visions, systems, beliefs and habits (Martin, 2010). Rowlinson and Hassard (1993) characterised corporate cultures as invented traditions, similar to the traditions generated by nations. Such traditions that originate from Ancient Greek times are considered important influencers on modern Greek organisational culture (Oikonomou, 2006; Tziovas, 2013). Morgan (2006) argued that organisations can be viewed as cultures themselves that have beliefs and values that shape them and distinguish them from other organisations in the society. In this respect, each organisation can be viewed as a mini society that has legal and physical boundaries. Furthermore, many authors have argued that understanding the organisational culture in large organisations, such as SOEs, is vital for the management of change in those organisations (Rule and Irwin, 1988; Prather and Gundry, 1995; Hayton, 2005; Cawood & Bailey, 2006; Carland, 2007; Watson, 2007; Feyzbakhsh, 2008; McCalman and Paton, 2008; Moon, 2009; Oliver, 2009; Hayes, 2010; Martin, 2010).

Pettigrew et al. (1989) perceive organisational culture as a set of beliefs, meanings, rationale, and language. The organisation as a culture can be influenced from the national

culture to form common beliefs and values that either facilitate or inhibit change. In this view, AGP was regarded as a major influencing factor on the Greek SOEs' organisational culture.

The data collection and analysis were realised in a Greek State Owned Aerospace organisation, where the researcher was also an employee. The pseudonym AERO was given to the organisation, for confidentiality purposes. During the author's work in this particular aerospace organisation, as well as in other Greek SOEs from the past, it was evident on a daily basis that Ancient Greek Philosophy had a very significant impact on the organisational culture. Literally, almost every one of the respondents interviewed for this research project have made references to the Ancient Greek world at some point, mostly to strengthen their arguments. Some characteristic examples can be considered here. In a discussion about the importance of employee empowerment during the implementation of BPM, one of the company directors (D10) argued that employees should have freedom to change business processes, however, this freedom should have reasonable limits.

"Process teams need to have the power to change things [for AERO] to be effective [...They] should have freedom to try new things and fine tune their processes. You cannot give them complete freedom, because you don't want to have chaos. They may even start conflicting between them and if they bring too many changes too fast, it can be a catastrophe. The freedom must have boundaries. Don't you remember the Ancient Greek Philosopher who said: every measure (limit) is perfect? There have to be some limits" (D10).

Another example is the discussion with a process facilitator (PF12).

The sense of urgency (e.g. pressure from the government to change quickly) was identified as potentially a motivating factor for change in Greek SOEs:

"The Greeks become unified when in danger. History has taught us this, since Ancient times to now. If we get to a point, where our ways of life are threatened, our differences and conflicts will immediately disappear. It has happened many times, it will happen again. The Ancient Greeks used to say: when in need, even the Gods are convinced" (PF12).

The observed AGP references during daily discussions among employees, and the data collection were supplemented by relevant references from the top management of the organisation. The Chief Executive Officer (CEO) of AERO referred to AGP when he gave speeches to the company personnel on numerous occasions. For instance, in a general address to staff, the CEO made an attempt to associate the ownership of business processes with pleasurable activities as was perceived by Aristotle:

"Everyone must have specific responsibilities and make sure that the outcome of our processes is delivered as required. This way we can

all feel the pleasure of our work. [...] Not because I say so. Aristotle has said these things, [...] and who can argue with him?"

During another characteristic speech to personnel, the CEO argued that business processes have to change, in order to provide a competitive advantage:

"[the ancient Greek] Homer, way before me, wrote in the Iliad that we should always try to become perfect, and to surpass the others [...] If we make our processes efficient [...] we will manage to be ahead of the competition."

This clearly indicates the CEO's effort to communicate the embedded belief among the top management of AERO that AGP is a significant organisational cultural element for the implementation of change.

It was observed that ideas from the Archaic Hellenic era were referred to very frequently, in daily discussions and during the data collection. The respondents were rarely highly knowledgeable about those concepts from the Ancient Greek Philosophers. The fundamental concepts of Ancient Greek Philosophy are normally taught routinely in secondary education in Greek schools (Efthymiou, 2003). The completion of secondary education was compulsory for employment in AERO and other Greek SOEs (www.minedu.gov.gr). The fact that the Ancient Greek World was referred to by the respondents to strengthen their arguments does not necessarily mean that the references were accurate. However, the fact that this type of reference was in frequent use, shows the perceived cultural value of AGP for the respondents. Therefore, it could be considered valuable to explore the significance of AGP in a theoretical framework of change in Greek SOEs. A more detailed analysis of the respondents' perceptions of the significance of AGP is given in the corresponding research results chapter.

The modern organisational culture in Greek SOEs and in the wider Greek public sector encompasses polarised political systems, political parties' intense control on the ways of work, employees' groupings according to their political beliefs, and cronyism, often resulting in lack of trust in change efforts (Cunha and Tsoukas, 2015; Aleksiou, 2014; Argeitis and Nikolaidi, 2011, Koutsoukis, 1998). Organisations that are controlled by elected officials, usually demonstrate a high degree of conflict in the delivery of services (Bozeman and Kingsley, 1998; Mur-Veenam et al., 2003). Often, the people who are supposed to initiate and help implement change in Greek SOEs, are also the first to doubt success of this effort (Cunha and Tsoukas, 2015; Koutsoukis, 1998). People, then tend to look for ideals and concepts (e.g. from Ancient Greek Philosophy) that they can trust, are within easy reach, they can feel proud

of, have time-based and geography-based wide acceptance, and they simply make sense (Doukas, 2005; Pantelis, 2008; Manousakis, 2003).

The relevance of Ancient Greece Philosophy in modern management has been pointed out by many authors (Czarniawska, 1999; Steel, 1999; Down, 2001; Zald, 2002; Booth and Rowlinson, 2006). Booth and Rowlinson (2006) argued that the question whether the concept of economic enterprise was actually born in Ancient Greece, or whether it is a modern phenomenon remains to be answered. Zald (2002) argued that there are mainly two approaches to the historical analysis of business problems: universalist and presentist. The universalist approach is based on the assumption that organisation theory applies to organisational phenomena in all societies at all times. The presentist approach conducts research, as if it occurred in a decontextualised, extended present. The presentist approach challenges the universalist approach on the basis of assuming that the present is a period of unprecedented change, leading to the dawning of a new age (Booth and Rowlinson, 2006).

The universalist approach assumes that any organisation from ancient times to the present, faces the same organisational problems (Steel, 1999). In that sense, Ancient Greek Philosophy concerning how organisations should operate and be managed can still be valid nowadays. However, viewing ancient Greek enterprises from the capitalist perspective implies that all economic organisations are different manifestations of capitalism (Down, 2001). In this system, trade, and the means of production are privately owned and operated via profit and loss calculation through the price system (Jenks, 1998).

The presentist method depicts fictionalised organisations in a non-dated, extended present, and even if the organisation does not exist, everything that is said about it is credible (Czarniawska, 1999). The main advantage of this approach is that description and analysis of corporate operations can take place always in the present, without the effect of time. The main limitation is that the findings of research, from a fictitious organisation, cannot necessarily be generalised across time and space. Nevertheless, if the organisation, where the data collection and analysis takes place is real, the presentist approach conveniently allows the cross-sectional study of the organisation. That is a study in the perpetual present, as if it is a snapshot of time (Saunders et al., 2012).

The influencing factors of AGP on CM are also examined by using the research framework of Pettigrew et al. (1989). The aspects of AGP that were found to be relevant to CM were categorised under the context (why) of change, content (what) of change, and process (how) of change. These categorisations were used to explore how AGP could facilitate or inhibit change in Greek SOEs.

The next section provides an introduction to the research methodology and the research questions.

1.5 Research Layout

Various researchers have studied one-to-one effects of AGP and BPM on CM (Argyris, 1990; Bruell, 1999; Axelrod, 2001; Berry, 2005; Christensen, 2005; Carnall, 2007; Burnes, 2009; Darnton, 1997, 2012). However, there is a dearth of literature that concentrates on the impact of AGP and BPM on CM in Greek SOEs. Furthermore, implementing the practices of change programmes from other countries and industries do not seem to be effective in Greek SOEs (Mylonas, 1999; Tsoukas, 2005). It is believed that the local organisational culture and country specific situations, such as the recent economic crisis, differentiate Greek SOEs from other seemingly similar organisations. The uniqueness of the Greek case is discussed further in the next chapter.

One research gap that was identified was the effect of AGP on the culture for change in Greek SOEs. The other research gap that was identified was the impact of BPM in the effort to reform the Greek SOEs. Consequently, this research project attempts to understand the cultural influence of Ancient Greek Philosophy on the implementation of change in Greek SOEs, as it is attempted through the implementation of Business Process Management. Two primary research questions were generated in order to synthesise a model and address the research gaps:

AQ AGP-CM: What role does Ancient Greek Philosophy play in facilitating or inhibiting change in the Greek SOEs?

BQ BPM-CM: How can change be implemented in the Greek SOEs through the adoption of Business Process Management?

The above research questions were treated with equal emphasis throughout. AGP could facilitate and/or inhibit change in SOEs, by influencing stakeholders' web of norms, common values and beliefs. BPM has largely been imposed on Greek SOEs by the Greek government as a change implementation method. An understanding of how AGP could facilitate or inhibit change is important for assessing how BPM could be effectively implemented. In short, AGP influences the common values and beliefs, while BPM forms the method of implementing change in Greek SOEs. Following the approach of Pettigrew et al. (1989), each of the two primary research questions was divided into the same three secondary research questions:

What is the context of change in Greek SOEs? In other words, why is the change needed?

What is the content of change in Greek SOEs? In other words, what needs to change?

What is the process of change in Greek SOEs? In other words, how should the change be implemented?

In order to answer the research questions, fieldwork was required. In this research project, the fieldwork was conducted in a Greek SOE called 'AERO' (a pseudonym, to comply with confidentiality restrictions). AERO is a leading aerospace company in the Mediterranean region. During the data collection and analysis for this research project, AERO had more than 3000 full time employees and had an average yearly net income of about €250 million.

The research was conducted following initially a deductive and then an inductive approach through an exploratory study. The main objective of the deductive approach is to evaluate the extent of validity and applicability of the existing theories in the specific organisational environment (Ketokivi and Mantere, 2010). The applicability of the theoretical model of change (incorporating context, content, and process) developed by Pettigrew et al. (1989) was explored in AERO. The inductive approach entails data collection that is used to explore a phenomenon, identify themes and patterns, and then create a conceptual framework for that phenomenon (Saunders et al., 2012). An exploratory research study was considered appropriate to address the research questions; this type of study can focus on exploring the links between research themes, as they have been found in the literature, and the way they are perceived in an organisation (Babbie, 2007).

The methodology adopted for this research project was qualitative, including data collection and analysis. The qualitative method attempts an in-depth understanding of human behaviour and the reasons that govern such behaviour, by using data collection techniques (such as interviews) or data analysis procedures (such as categorising data) that generate or use non-numerical data (Saunders et al. 2012). Multiple methods of data collection were used (i.e. unstructured interviews and focus group discussions), which render this a multimethod qualitative study (Tashakkori and Teddlie, 2010). A major aspect of conducting the focus group discussions and the interviews during this research project was the use of the Socratic method of questioning. The main objective of trying to implement the Socratic method of questioning in AERO was to infer a logical conclusion from the answers produced by the interlocutors, when the right questions were asked. Then, follow-up questions were asked to make the interlocutors come to a logical conclusion.

Following the collection and analysis of data, it was possible to answer the secondary research questions. Consequently, it was possible to synthesise the answers to the primary research questions and create a conceptual model exploring the management of strategic and operational change in Greek SOEs.

Following the creation of the conceptual model for managing change in Greek SOEs, the absence of a practical implementation method was recognised. Such a method remains a subject for future work.

1.6 Outline of the Thesis

Chapters 2 and 3 provide a critical literature review about the relationships between AGP and CM, and between BPM and CM respectively. The research gaps for the first primary and secondary research questions (AQ and BQ) were identified. Chapter 2 focuses on the fundamental concepts of Ancient Greek Philosophy and their applicability in contemporary Greek organisations. The influence on the organisational culture and consequently on CM are reviewed. Chapter 3 reviews the impact of BPM on CM.

Chapter 4 presents and evaluates the research methodology. The interviews and notes from the focus groups were coded deductively against the Pettigrew et al. (1989) model of the content, context, and process in the management of strategic and operational change and competitiveness. The model was then extended and the data were coded inductively to allow themes and issues relating to (i) AGP and (ii) BPM to emerge in order to construct a conceptual model to explore CM in Greek SOEs.

Chapter 5 presents the findings of the deductive analysis of the research conducted in AERO. The chapter concentrates on the structure as well as important political and historical perspectives that emerged from interviews and from the company's historic database. Projects of change concerning business process improvements are presented and their outcome is discussed.

Chapter 6 presents the findings of the analysis of the influence of Ancient Greek Philosophy on the management of change in Greek SOEs. Emerging themes were analysed inductively to complement the deductive analysis. The extension to the Pettigrew et al. (1989) framework was derived from the close reading and analysis of the interview and focus group transcripts.

Chapter 7 presents the findings of how change could be implemented in Greek SOEs through the adoption of Business Process Management. The inductive analysis of the transcripts provides a further extension to the Pettigrew et al. (1989) framework.

Chapter 8 constitutes the contribution of this research project to knowledge. The original model of change of Pettigrew et al. (1989) is extended for the case of the Greek SOEs. The validity and the limitations of this research are also discussed. This chapter provides all of the major concluding remarks of this research project, the answer to the research questions, and suggestions for future research.

Chapter 2. Ancient Greek Philosophy and Change Management

This chapter critically reviews the literature on the philosophical roots of contemporary organisational Change Management (CM) in Greece, by focusing on the most influential aspects of Ancient Greek Philosophy (AGP). Ancient Greek Philosophy is considered to be a particularly important cultural element in the operation of modern Greek SOEs, as explored in the previous chapter. In this chapter, the unique characteristics of Greek SOEs are examined in the context of the economic crisis in Greece, and the impact of the resulting austerity policies on the operations of these organisations. The data collection and analysis were conducted in a Greek State Owned Aerospace organisation. The influence of AGP on Greek society and organisations are reviewed in sections two and three. Finally, how Ancient Greek Philosophy impacts on Change Management initiatives in Greek organisations is reviewed in section four. This influence is examined using the theoretical model of change developed by Pettigrew et al. (1989), for studying change in large organisations and SOEs. This model categorises change under the context (why) of change, content (what) of change, and process (how) of change.

2.1 Background

This section begins by reviewing the CM practices implemented in the Aerospace industrial sector. The specific characteristics of Greek SOEs, and the attempts by the current and previous government to reform them is examined. An overview of the aerospace industry and its strategic importance to the Greek economy is presented, which includes data on AERO, a large SOE, and the most important company in the sector. This is followed by a review of the recent Greek economic crisis and the austerity measures that were imposed, and the impact that had on Greek SOEs.

2.1.1 CM in Aerospace

Hyland et al. (2002) studied the effect of knowledge accumulation on the effectiveness of change in the Australian aerospace industry. Knowledge was viewed as information combined with an individual's or an organisation's experience, interpretation and reflection. Information was distinguished from knowledge, since information can be considered to be data that have been organised and analysed into meaningful categories (Davenport et al.

1998). The creation of organisational knowledge requires the sharing of information through the collaboration between individuals with different backgrounds (Amidon, 1998).

Individuals' knowledge accumulation that coexists with cooperation can result in the reduction of resistance to change through better awareness of the organisational mission and acceptance of uncertainty (Hyland et al., 2002). Organisational learning in the aerospace industry was considered important for the strengthening of the organisation's competitive position via the enhanced communication (Hyland et al., 2002).

Goldstein (2002) studied change in the aerospace SOEs of developing countries such as Brazil, Indonesia, and South Africa. Similar to the main motives of the Greek state-owned aerospace industry formation, those countries developed their aerospace industries, mainly to be self-sufficient in terms of defence production in case of conflict, and to establish a high-tech capability to mitigate an overflow of the country's intellectual capital (Papathanasiou, 1985; Lioukas and Papoulias, 2000; Goldstein, 2002; Rammata, 2011).

Partial privatisation of the Brazilian aerospace SOE was one of the major changes that has taken place in this organisation, in recent decades (Goldstein, 2002). Emphasis was given to the organisation's cooperation efforts with international firms as well as domestic firms from other industrial sectors (e.g. car manufacturers). The main characteristic was the cooperative development of know-how in complex fields such as electronics, mechanical components, and testing. The cooperation of the Indonesian aerospace SOE with other companies from around the world, through mutual benefits agreements, has been extremely important in recent decades (Goldstein, 2002). This practice, which is very similar to what has been happening in the Greek aerospace case, refers to agreements between two organisations that exchange their goods or services, instead of purchasing them with cash. The strong cooperative characteristic in the Indonesian organisation helped it survive through political and economic crises during the late 1990s (Goldstein, 2002). The main change that was introduced in the strategy of the firm in the year 2000 was to focus on the manufacturing and sales of aircraft components, rather than the whole aircraft. This was a key strategic move that shows how adaptation to the organisational environment can increase the chances of survival (Goldstein, 2002). The development of aerospace in South Africa was driven by the arms embargo of the late 1970s that generated the need for self-sufficiency in defence manufacturing (Goldstein, 2002). The lifting of the arms embargo in 1994 generated the need to transform the South African aerospace SOE into a competitive organisation, by encouraging coalitions between the military and local defence companies (Goldstein, 2002).

The budgeting method for space programmes carried out by the National Aeronautics and Space Administration (NASA) was changed by federal law in 1998 (NASA, 1999). Kea

(2008) studied the effects on employees' motivation, following this major change. The new budgeting system requires allocation of man-hours and materials to each programme, rather than accounting for civil service salaries and overheads (NASA, 2005). Before this change, NASA engineers, for example, got paid whether they were working for a programme or not. The new system required NASA management to allocate the engineers' time to specific projects for costing purposes. Consequently, there was an effort to motivate engineers to focus on getting assigned to long-term and less exciting projects (Kea, 2008). Following this change in NASA, a reduction in motivation levels was observed, particularly for parameters such as organisational loyalty and pride (Kea, 2008). Recognition and appreciation for work and rewarding work were positively associated with motivation, while the lack of opportunities to get promoted to the upper grades of management were demotivating (Kea, 2008).

Berkhauer-Smith (2009) developed a manufacturing business improvement method for the supply chain in the aerospace industry. This supply chain was considered to be the process of transforming raw materials and components into services and products delivered to the end customer (Nagurney, 2006). Berkhauer-Smith (2009) developed a ten-step change management method for the supply chain:

- Alignment of planned change with the vision and mission of the organisation. This involves the forecast of the future state of the organisation after the change has been implemented;
- Planning the metrics and the measurement of those metrics that will evaluate the effectiveness of the change is important, because the perceived success of the change relies on it;
- Recording the information and defining the current state provides the input to the change process. This stage creates an understanding of the way the work is currently carried out and potential inefficiencies are identified;
- Analysing the data and defining the future state is an informed and realistic scope specification, taking into account required resources and limitations that may affect change implementation;
- Improving the results and defining the optimum technical future state follows the analysis of the data from the previous stage. The use of IT is important because process modelling and simulation can be achieved to identify potential future changes, without having to trial the effectiveness of every single change in reality;
- Analysing cultural aspects of the organisation. Cultural elements may emphasise: (a) business relationships between employees; (b) individuals versus groups; (c) qualifications versus achievements; (d) adaptability to the organisational

environment. A more realistic future state after the change can be defined when the cultural aspects are included in the plan;

- Creating a strategic plan through project management principles that need to include and monitor costs, durations, sequence of actions, availability of resources, and allowance for contingencies;
- Implementing the strategy refers to the actualisation of the planned change, by following the steps defined in the project management plan of the previous stage;
- Measuring the effectiveness of change is about activating feedback loops in the strategy implementation to monitor costs, times, and resources. Any discrepancies with regard to meeting the goals should be challenged;
- Controlling the project to sustain the introduced improvements generally relies on a balance between disciplined monitoring of process performance metrics and being reactive to customer requirements.

A historical study of changes in the United States Air Force (USAF) indicated that external crises, internal culture, and leadership were major influencing factors for implementing changes in that organisation (Smith, 2010). External organisational pressures, such as wars, pushed the USAF to transform its operations in order to adapt to requirements. The most effective and accessible technology to fight particular wars shaped and brought forward dominant cultures and changes in leadership styles in the USAF. For instance, the gradual transition from bomber-operations towards fighter-operations required a transition from a culture and leadership that were oriented around logistics and supply chain management, towards focusing on individuals' skills and personal achievements (Smith, 2010). Similarly, when the external environment required a transition from fighter-operations towards unconventional and urban warfare, a synergistic approach was required to link with ground forces for intelligence, surveillance, and special operations (Smith, 2010).

2.1.2 Greek SOEs

This section reviews special characteristics of Greek SOEs that may cause change efforts that have been implemented in other countries to be ineffective in Greece. Greek SOEs are organisations which the Greek public sector and the government has the ability to influence directly or indirectly, either by whole or partial ownership, and / or by setting the rules that dictate their operation (Papoulias, 2005). Typically, the state owns a percentage or

the whole of the organisations' capital, while the enterprises are engaged in business activities, having their own balance sheets and profit and loss accounts (Lioukos and Papoulias, 1990).

Consequently, the Greek SOEs have traditionally been controlled and micromanaged by political centres in Athens, which has left very little room for initiatives from local managers, and selection / promotion of personnel has traditionally lacked meritocracy (Lykogiannis, 2009; Papazoglou, 2010). Since the Second World War, the political climate in Greece has been quite turbulent (Close, 1995). A civil war, a dictatorship, thousands of political imprisonments and exiles, created a high degree of uncertainty and turmoil in the operation of the public sector and subsequently of the Greek SOEs, until the late 1970s (Lykogiannis, 2009). The political situation has been stabilised since then, operating under the principles of democracy (Close, 2006). From an economic point of view, Greece has also been relatively stable since the 1980s, particularly after joining the European Economic Community (EEC) in 1981 (Close, 2006). Considerable economic uncertainty emerged again in the country since the financial crisis of 2009 (Argeitis et al., 2011; Mavropanou, 2014). Even with the relative political and economic stability of the 1980s, the 1990s and the early 2000s, the operation of the Greek SOEs has been handicapped by economic scandals that were caused by politicians and private organisations regardless of the governing parties of that period (Nikolakopoulos, 2000; Kazakos, 2001; Close, 2006, Voulgaris, 2008). The unethical conduct between political authorities and private business people in recent decades has caused a high degree of mistrust in the management and operation of Greek SOEs (Koutsoukis, 1998; Kazakos, 2001; Korovinis, 2008).

Tsoukas (2012) argued that changing the Greek SOEs, heavily relies on the daunting task of changing the state. The main difficulties in changing the operation and culture of the Greek state originate from its large size, the competitive politics in the country's liberal democracy, and the long-time operation of public administration that follows standard bureaucratic practices (Papoulias, 1994; Tsoukas, 2012). Bureaucracy is one of the main barriers to the efficient operation of the Greek SOEs and the public sector in general (Makrydimitris, 2000, Lykogiannis, 2009). The cost of bureaucracy and corruption in Greece between 2000 and 2010 was estimated to be about 170 billion Euros, which corresponds to about 50% of the national debt (Karageorgiou, 2011). Albrow (1992) argued that when SOEs are established and managed by governments, there is a high probability for these organisations to operate as an extension of the state and function as bureaucracies.

Any efforts for reforms in Greek SOEs have been isolated rather than organised and have targeted the symptoms rather than the root causes of the managerial pathology

(Makrydimitris, 1996, Lykogiannis, 2009). Reforms in this case can be viewed as efforts to implement change in Greek SOEs, in a way that those changes become the new way of operating (Tsoukas, 2012). Many attempts to introduce reforms have been hindered by bureaucracy which favoured the traditional ways of work and protected well established privileges of officials, such as the power of decision making (Varvaressos, 1952; Kazakos, 2001; Voulgaris, 2008). Furthermore, the number of employees in the public sector and subsequently in Greek SOEs has increased more than twenty times compared to the levels of the 1950s (while the country's population was relatively constant), due to the effort of the political parties to maintain an increasing number of voters who enjoy permanent employment status (Varvaressos, 1952; Makrydimitris, 2000, Kazakos, 2008; Lykogiannis, 2009).

Reforms targeting Greek SOEs have not systematically recognised the importance of the customer (Makrydimitris, 1996; Papoulias, 2002; Lykogiannis, 2009). In contrast, the reforms in the British SOEs and the wider public sector that took place in the 1990s, regarded the customer as king (Cheng, 2006). The policy was to change the operation of the UK SOEs so that they provide services to the satisfaction of their customers. Some of the main requirements for the operation of SOEs that were established in the UK in the 1990s were the following (Cheng, 2006):

- Setting service standards according to the customers' reasonable requirements;
- Making information publicly available, so that the customers can understand the procedures involved;
- Provision of choices, so that the customers can decide about the best service for them, as well as consultation to take advantage of customers' suggestions;
- Courtesy, helpfulness, and equal treatment of customers were considered important;
- Apologies, explanations, and remedy, in case of mistakes were associated with the establishment of a fair judgement and handling of customer complaints;
- The provision of service should be effective, without putting excessive burden on national resources.

Employee participation in the management of Greek SOEs has been legally established by the Greek State Law 1365/1983 (Karamanlis, 1983). The main purpose of such participation was to serve national interest, to align the Greek SOEs with economic development programs and increase productivity and efficiency. This law established a voting procedure for electing employee representatives by their colleagues in the same SOE (Karamanlis, 1983). Such established employee participation schemes were on the one hand praised for introducing instruments of socialisation of Greek SOEs, while on the other hand they were condemned for rendering Greek SOEs more ineffective than they already were

(Papoulias and Lioukas, 1995). Effectiveness can be the degree of doing the right things, while efficiency can be a measure of doing things in the best possible manner (Drucker, 1963).

Lioukas and Papoulias (1990) suggested the use of the following performance indicators to measure the effectiveness of Greek SOEs:

- Profitability is the ratio of profits or losses to the capital investment engaged;
- Total factor productivity is the ratio of the value added over the capital and labour inputs to the organisation;
- Capacity utilisation is a subjective measure, based on managers' perceptions about the utilisation of human and capital resources compared to similar domestic or international organisations.

Lioukas and Papoulias (1990) suggested the use of the following performance indicators to measure innovation in Greek SOEs:

- Acceptance of new ideas is a subjective measure of how easy it is to adopt new methods and ideas;
- Organised support to new ideas is a measure of systematic management support to new ideas and innovation;
- Modernisation investments shows the existence of investment initiatives in the development of new products and services, information technology and the modernisation of production facilities.

Lioukas and Papoulias (1990) and Lioukas et al. (1993) argued that the following factors may have an impact on the effectiveness of Greek SOEs:

- Intensity of state control is the degree of control over human and capital resources by the state;
- Competition is how intense is the pressure by domestic or international competition;
- Internal decentralisation is the degree of empowerment that departments of Greek SOEs have over the budget, personnel recruitment and production planning;
- Internal management systems include the existence of long term corporate plans, the use of IT in internal operations, and the existence of personnel evaluation systems.

Lioukas and Papoulias (1990) and Lioukas et al. (1993) suggested the following measures for the modernisation of Greek SOEs: (a) loosening of state control; (b) exposure to international competition where possible; and (c) decentralisation of internal systems and business processes. The main research gap following this study was the lack of a methodological approach, particularly for the change of internal systems and processes.

Labroukos et al. (1995) studied the relationship between operational planning and performance of Greek SOEs. Operational planning refers to low-level (day-to-day) planning taking place on a departmental level in order to fulfil high-level mission statements of organisations (Thompson, 1993). Labroukos et al. (1995) considered organisational performance both from the perspective of financial indicators (output effectiveness), and from the perspective of process effectiveness. Process effectiveness was analysed in terms of the following variables (Labroukos et al., 1995):

- Awareness is the responsiveness of management to the external economic environment and changes in the internal operations of the organisation;
- Integration refers to the consensus among employees about the organisation's current state and future prospects, and the measure of the stability of decisions taken;
- Utilisation of human potential refers to the degree of taking advantage of employees' capabilities and talents;
- Control is a measure of management decision implementation and the effect of time lag between decision making and real action.

Labroukos et al. (1995) considered the following factors associating operational planning to the effectiveness of Greek SOEs:

- Participation in international competitive markets may result in improved operational planning;
- State control is the degree of state intervention in normal managerial decisions causing a reduction of management autonomy;
- The size of the organisation is important because larger companies tend to face more complex operational challenges.

One of the main change efforts on behalf of the Greek governments in the last two decades has been the whole or partial privatisation of Greek SOEs (Vakola, 2005; Aleksiou, 2014). The legal concept of privatisation in Greece specifies the transfer of public property (including SOEs and their assets) to private individuals or organisations (Greek State Law 2000/1991; Karamanlis, 1991). The same law requires the privatised organisation to provide products or services that are subjected to the criteria of the free market, such as profit making (Vaitsos et al, 1994). The main purpose of privatisations of Greek SOEs is the attraction of capital investments from the private sector. The private organisations that invest in the Greek SOEs also have management rights. Greek SOEs are expected to concentrate on achieving their strategic objectives and increase operational effectiveness (Tsironas, 2006). In most cases, the Greek government is expected to let the complete control of the organisation to be

transferred, partially or in total, to private management, and assist in the removal of monopoly rules that have benefited Greek SOEs (Papadopoulos, 1986).

A recent attempt to restrict governmental intervention in the privatisation process resulted in the establishment of The Hellenic Republic Asset Development Fund (HRADF) (Greek State Law 3986/2011; Papoulias, 2011). The main purpose of the fund is to carry out the Greek privatisations with transparency and speed (HRADF, 2015). HRADF has the absolute authority over privatisation decisions and two members of the board of directors are observers, appointed by the member-states of the Eurozone and the European Commission (HRADF, 2015). The Eurozone is the monetary union of EU member states which have adopted the euro (€) as their common currency (ECB, 2009). The European Commission (EC) is the EU management entity, responsible for bringing forward legislation, implementing decisions, and upholding treaties (Europe, 2007). HRADF claims that it currently carries forward the largest declared divestment programme in the world that is aiming at attracting significant international capital flow to stimulate Greek economic growth (HRADF, 2015).

The privatisation of about 15 Greek SOEs has taken one of the following forms (Belke et al., 2006; Aleksiou, 2014):

- Public offer of shares or sales of shares directly to private organisations or individuals via the stock exchange (the state may hold a minority or the majority of the shares, or no percentage of the shares);
- Liquidation of assets (i.e. sales of property to highest bidders from the private sector);
- Segmentation of the organisation and selective privatisation to investors (this category includes the creation of subsidiaries and invitation for ownership by the private sector);
- Leasing of assets and / or management to the private sector;
- Self-Funding of infrastructure is an agreement between the state and a private organisation to build infrastructure such as the new airport of Athens; the private organisation funds the building of the project and has exclusive right of commercialisation for a period of time, after which, the infrastructure goes back to state control and ownership.

Pagoulatos (2001) argued that the Greek privatisation efforts of the early 1990s were unsuccessful due to the widespread bureaucracy and the negative reactions of the trade unions that wanted to have political intervention in the operation of Greek SOEs. Skaperdas (2010) noted that it is very difficult to find credible investors that are willing to buy the Greek SOEs, when the latter have large debts and are limited by restrictive employment regulations. There

may be unethical exploitation of the consumers by offering low quality products and services at high prices, with the aim to generate profit from the operation of the problematic Greek SOEs (Karagianni, 2008). When the Greek SOEs are solely controlled by the private sector, they may not assist the state's efforts to keep inflation low, by reducing the prices of their products and services (Dalamankas, 2010).

Spanos and Papoulias (2005) suggested that in the case of the Hellenic Telecommunications Organisation, privatisation has been effective, because of the legal support provided by successive governments during the transition period. Alexakis et al. (2008) claimed that the Greek SOEs that were partially or wholly listed on the Greek stock exchange market during the period of 1988 - 2006 have experienced a correct valuation of their shares. Karagianni (2008) suggested that some of the advantages of privatisation are the improvement in efficiency of Greek SOEs which negates the danger of bankruptcy, and the acceleration of change programmes to improve competitiveness. Christodoulakis (2010) advocated an acceleration of the privatisation of Greek SOEs in order to help improve the economic situation in the Greek public sector. Dalamankas (2010) argued that the privatisation of Greek SOEs can lead to more effective recruitment of personnel, increased flexibility in management decisions, attraction of foreign capital, and eventually increase in the number of employees.

2.1.3 Aerospace Industry in Greece

The aerospace industry in Greece comprises organisations that specialise in air transport (e.g. airlines and air freight companies), ground based infrastructure (e.g. airport facilities and services, and catering), and manufacturing / engineering firms that design, manufacture and maintain aircraft systems, airframes, and engines. The manufacturing sector of the aerospace industry has been of immediate relevance to this research project and is discussed further here.

The Aircraft Manufacturing sector in Greece is much less developed compared to other European countries such as the United Kingdom, Germany, France, and Italy (www.yme.gr). There is no complete manufacturing of airplanes or helicopters in Greece. Production is generally limited to certain components of the fuselage and electronics of aircraft. The industry mainly concentrates on maintenance and repair of aircraft, assembling parts, and the supply of spare parts. Most Greek firms in this sector concentrate on exports, since a significant part of their total sales comes from military or civil aviation components delivered

to foreign countries (www.minfin.gr). During the year 2016, the total Greek imports of aircraft, spacecraft and parts amounted to 96.4 million euro, while exports in the same category was 118.3 million euro (www.statistics.gr). The main export partner country in the last decade has been the U.S., which accounts for approximately one third of the total Greek exports in this category. There are two main reasons for the relatively low demand for manufactured products and services of the Greek firms: (a) the limited number of private aircraft in Greece; and (b) maintenance of civil aircraft belonging to the local major airlines is carried out by their own qualified technical staff.

The demand for products and services comes predominantly from the defence sector that comprises approximately 75% of the market share (www.hasdig.com.gr). Based on 2016 data, 26 Greek companies were actively involved in mainly defence related aerospace projects. They employed around 8000 people, and had a combined annual turnover of about 680 million euro (www.hasdig.com.gr). AERO is the largest aerospace manufacturing organisation in the country, employing almost one third of the total personnel working in this sector in Greece. The turnover of AERO is also about one third of the total turnover of all the companies that are involved in aerospace manufacturing and engineering in Greece (AERO, 2015). The remaining Greek organisations that are active in aerospace manufacturing programmes are generally much smaller than AERO. Further analysis of AERO is provided in chapter 5.

The Organisation for Economic Co-operation and Development (OECD) monitors the ease of doing business in a country as a function of the stability of the political system, the effectiveness of the justice system, the degree of bureaucracy, corruption, the ease of financing, and the tax system (www.oecd.org). As the rank of a country in ease of doing business becomes higher, the opportunities of attracting foreign investment in the country become larger. Although the ranking of Greece has improved from 109th place in 2009 to 58th place out of 190 economies in 2014, it has worsened by 10 places since then (www.oecd.org). This index is aligned with the fluctuations of foreign investment for the same periods (from about 23 million euro in 2009, to 430 million euro in 2014, see www.tradingeconomics.com). The recent economic crisis in Greece has caused a reduction in orders of products and services from the public sector, which is still the largest domestic client (www.hasdig.com.gr). The typical investment and market entry strategy of foreign organisations seeking to enter the Greek aerospace industry is through collaboration with local agents or representatives, with experience in the industry, or by establishing joint ventures with local firms (www.1source-aero.com).

The following subsection examines the effect of the recent economic crisis in Greece on the operation of the Greek SOEs.

2.1.4 Economic Crisis

This sub-section reviews the recent economic crisis in Greece and the impact of the associated financial austerity measures on the operation of Greek SOEs.

Kotios and Pavlidis (2012) argued that the recent financial crisis in Greece has been a sudden and severe phenomenon, which was simply the visible result of a status that already existed, yet had not manifested itself. The financial crisis can be viewed as a sudden disturbance in the smooth operation of an economic system (Kotios and Pavlidis, 2012). Many authors suggested that the latest economic crisis became apparent in Greece by the beginning of 2010 (Argeitis and Nikolaidi, 2011; Varoufakis et al., 2011, Michalopoulou, 2014). The members-states of the Euro currency zone and the International Monetary Fund (IMF) imposed a memorandum on Greece, one of the objectives of which was to strengthen the competitiveness of Greek SOEs, through deregulation of pricing policies. This was the Memorandum of Economic and Financial Policies (Greek State Law 3845/2010; Papoulias, 2010). The same memorandum introduced the immediate reduction of salaries and pensions in the Greek public sector and the Greek SOEs, and the replacement of only 20% of the retired employees in the same organisations (Papoulias, 2010). The equalisation of wages between the employees of the public sector and those of the Greek SOEs was also included in the same law. Two more memorandums followed the first one: (a) Memorandum of Understanding on Specific Economic Policy Conditionality; and (b) Technical Memorandum of Understanding. Both of them were included in the Greek State Law 4046/2012 (Papoulias, 2012).

The immediate effect of these austerity measures on the Greek SOEs was the reduction of funding for the public sector (Efstratoglou et al., 2011). Furthermore, reductions in the minimum wage levels and increases in the retirement age limit were introduced (Michalopoulou, 2014). The second and third memorandums reduced the wages further, set a target for reducing the number of employees in the public sector and the Greek SOEs, and cancelled the permanent employment status of new recruits (Papoulias, 2012). By the beginning of 2013, the income of employees working in the Greek SOEs was reduced by about 45% in total, compared to their income from wages at the end of 2009 (Chatzinikolaou, 2013).

As a reaction to the crisis and the introduction of austerity measures, a large number of strikes occurred in the Greek public sector and the Greek SOEs (Mavropanou and Mpalopitas, 2014). Furthermore, many small and medium-sized Greek businesses that were supplying the Greek SOEs with products and services were declared bankrupt, causing supply discontinuities to many Greek SOEs (Argeitis et al., 2011). The unemployment rate in Greece was 9.6% in 2009 (before the economic crisis), it reached 26.5% in 2014, and peaked at 27.5% in 2013, after the introduction of memorandums two and three (Eurostat, 2015). Eurostat calculates the unemployment rate as a percentage of the labour force that corresponds to the number of unemployed persons, based on the method specified by the International Labour Office (ILO, 2012). The sharp increase in unemployment and the reduction of income in Greece contributed to the inability of the consumers to pay bills for products and services provided by the Greek SOEs (Mavropanou and Mpalopitas, 2014). Thus, the income to Greek SOEs was not only reduced by the reduction in the financial support provided by the state, but also, it was reduced by the poverty imposed on the consumers (Lapavitsas, 2010). The income of Greek SOEs that are not directly reliant on sales of consumer products and services was also affected when their client was the Greek state (Michalopoulou, 2014). For instance, the Greek SOEs that provide products and services to the public sector, such as those operating in the defence and the aerospace industries also experienced reductions in sales due to the shrinkage or cancellation of orders from the government (Aleksiou, 2014).

Cunha and Tsoukas (2015) argued that there is a critical paradox about the pressures from Greece's lenders associated with change efforts. On the one hand, Greece's lenders mostly demand reforms designed to bring immediate financial benefits and thus, reduce the country's debt. On the other hand, a sustainable reduction of Greece's deficit can only be achieved by fundamental institutional reforms that require a long time horizon of implementation (Cunha and Tsoukas, 2015).

The economic austerity measures can provide the opportunity to stabilise the Greek economy by reducing public funding of Greek SOEs and minimising expenditure (Loizidis and Patsouratis, 2008). Greek SOEs will be under great pressures to change in order to become competitive in the free market and sustain their existence (McKinsey, 2012). The reduction of wages could contribute to the competitiveness of Greek SOEs through an increase in sales of their products and services in international markets, due to the reduction in operational costs (Nikia, 2014). These measures may also may reduce the financial deficit as well as inflation (Rapanos and Kaplanoglou, 2010).

As was explained in the introduction chapter, Ancient Greek Philosophy plays an important cultural role that adds to the uniqueness of Greek SOEs' operation. The following section reviews some fundamental concepts that originate from Ancient Greece and are considered highly relevant to today's operation of Greek organisations.

2.2 Archaic Hellenic Philosophical background

This section reviews some of the fundamental concepts that originate from Ancient Greece and are considered influential for the operation of organisations in modern times. This section provides a basis for the more sophisticated concepts of Ancient Greek Philosophy and their relevance to implementing change in Greek SOEs.

According to Toghian and Roussou (1979), philosophy is the love for wisdom, which means pursuing theoretical knowledge and practising virtue. By definition, philosophy addresses the generalised questions that preoccupy humanity. These questions might refer to God, the world, and the human being. Ancient Greek Philosophy, at the beginning, concentrated on the natural environment and the essence of the universe (Morrell, 2004). Later on, a dominant spiritual wave of philosophers (sophists) began to research the human being. In parallel, the sophists taught the art of convincing through the use of argument, even if they were wrong; this art was named rhetoric (Morrell, 2004). The Sophists established Logic and Psychology and taught that objective truth does not exist; true and right is only what seems good to each person, individually and according to everyone's interest (Morrell, 2004).

The most severe opponent to the rhetoric of the sophists was Socrates who lived in Athens between 470 and 399 BC (Nehamas, 1998). As a citizen, he was disciplined, virtuous, and righteous (Nehamas, 1998). Socrates taught obedience to the laws of the state and he set an example by his way of living (Cavarnos, 2000). His method of teaching was the Dialectic according to which, he asked questions to others (about ethical, social, religious and political matters), with the objective to find the truth (Kyrtatas, 2013). Socrates, typically began the dialectic approach by pretending complete absence of previous knowledge about a specific subject (Williams et al. 1992). However, he would emphasise on being interested to learn (e.g. what is good or bad, right or wrong). The art of questioning is frequently referred to as elenchus (Williams et al., 1992; Lee, 1987). Socrates believed that when a person learns to use his / her own reasoning, he / she can think and find the universal truth on his / her own

(Lee 1987). Since this truth lies within each person, the method of delivering this truth seems like delivering a baby, which in the Greek language translated as the Maieutic (Manousakis, 2003). Plato (one of Socrates' students) wrote characteristic dialogues with Socrates, portrayed as the protagonist (Nehamas, 1998). Following Plato's writings and other philosophers' reasoning from the Archaic Hellenic Epoch, an attempt is made in this chapter to find links with contemporary management theories.

Socrates punctured the rhetoric of the Sophists, and through his dialectic method, he made Sophists feel embarrassed, while arguing with them (MacIntyre, 1984). According to Bruell (1999), Socrates managed to do that, not because he was more rigorous nor had he superior rhetorical skills; it was due to the Sophists' unconscious exemplification of a state of moral confusion. Morrell (2004) explained that when Socrates used the elenchus, he carried out a cross-examination and used counter-examples to reveal contradictions. Each Socratic dialogue was custom-shaped, however, it would start with a generic question and then moving from the specific to the general (Van Hooft, 1999). Socrates, in dialogue with the Sophists, led them to incoherence, since they lacked the ability to illustrate a universal understanding of what it means for an individual to be good in relation to other people (Makris, 2006).

Skordoulis (2007) characterised the Socratic approach as regressive abstraction, which contrary to starting from a general principle, the dialogue begins with an example and goes to a generality, while constantly referring back to the example. Choosing a particular example to reach a generality may conclude with a different generality according to each example, which might be the main reason why people's conceptualisations of generalisations are not well defined (Hadot, 2002).

According to Morrell (2004), there were three stages in the Socratic method: (a) posing a relatively complex question; (b) receiving a conventional answer or definition from the conversant and refining/simplifying this answer; and (c) using counter-examples to show the conditions under which the answer is inconsistent with other beliefs. For example, Socrates would ask "*what is justice?*" [Plato(b) (427BC-347BC), 1.331e] and receive and simplify the answer "*to render to each his due*" [ibid. 1.331e]. Then he would continue the questioning by bringing up an example that breaks this definition down. In this case, he would ask whether a weapon should be returned to its owner, if this person was not in a sane state of mind and could inflict self-harm (ibid. 1.332ab). Following the Socratic thought process, people discover that they cannot clearly define ideas and concepts they previously held with certainty, which stimulates further curiosity and open-minded reflection (Nelson and Brown, 1949).

Paul (1995) categorised the Socratic questions as follows:

- Questions of clarification;
 - What do you mean by this?
 - What is your main point? Could you give me an example?
 - Can you explain that further?
 - Why do you say that?
 - How does this relate to our discussion?
- Questions about assumptions;
 - What are you assuming?
 - Why have you based your reasoning on this rather than that?
 - Is this always the case? Why do you think the assumption holds here?
- Questions about reasons and evidence;
 - How did you come to believe that?
 - Do you have any evidence for that?
 - What other information do we need?
 - What could change your mind?
- Questions about viewpoints and perspectives;
 - Why have you chosen this rather than that perspective?
 - Can anyone see this another way?
 - How are this and another person's ideas alike or different?
- Questions about implications and consequences;
 - What are you implying by that?
 - If that happened, what else would happen as a result?
 - What effect would that have on this?
 - If this and that are valid, what else must be true?
- Questions about the question;
 - Why is this question important?
 - What does this question assume?
 - Does everybody agree that this is the question?

The Socratic questioning method has played a major role in this research project, particularly during the data collection from interviews and focus group discussions. The next section focuses on the relevance of AGP to modern business operations.

2.3 The cultural roots of change from Ancient Greece

This section reviews the influence of Ancient Greek Philosophy on modern business and management. The main argument is that the operation of contemporary Greek organisations, including Greek SOEs is influenced by generic concepts that originate from Ancient Greek Philosophy.

Spais (2005) and Theofanides (1999) argued that even before the Ancient Greek Philosophers, the principles of today's management originated from mythological scripts about the twelve Ancient Greek Gods and Goddesses (called the Olympians, since they were stationed on the highest Greek mountain Olympus). The Council of the Olympian gods and goddesses made collective decisions about humanity, based on the input from an expert panel (Spais, 2005). This panel comprised Zeus (president of the gods), Athena (goddess of wisdom), Hermes (god of information and commerce) and other gods depending on their area of expertise in each case. The decisions made in the gods' council were persuasively communicated to mortals and powerfully implemented with follow-up reports (Theofanides, 1999). According to Zanakis et al. (2003) the Olympian style of management followed a six step approach:

- I. Identification of the problem by collecting relevant information through intelligence work by Hermes (god of information);
- II. Search for a group of potential alternative solutions through dialogue between the participating Olympian gods;
- III. Selection of the best possible solution or course of action by conferring with the most concerned party;
- IV. Announcement of the decision of the gods to all mortals concerned through Hermes and sending of Peitho (goddess of persuasion) to convince the mortals of the rightness of the decision made by the Olympian gods;
- V. Use of lightning and thunderbolts by Zeus to mightily convey the will of the gods for mortals to accept the decision;
- VI. Decision implementation supervised by Hermes, who announces to the Olympian gods the results of their action taken at the beginning of the decision process.

As Miller (1958) put it, the dream and the reality, the historical and the mythical were artfully mixed in Ancient Greece. The main point, however, is that this model of management tends to be widely acceptable in contemporary Greek organisational culture (Zanakis et al., 2003; Tziovas, 2013).

Two of the most fundamental economic institutions in Ancient Greece were the household (oikos; plural oikoi) and the city (polis; plural poleis). The oikos was a highly self-sufficient (autarkes) unit, which very frequently included a farm (Lowry, 1987). Thus, oikoi, required minimal market activity as a supplement. However, dependence on markets increased over time (Booth, 1993). When various oikoi joined to form larger population centres, they were named poleis or in modern terms, cities (Nagle, 2006). The polis included an urban area (asty) or city centre in modern terms, and a surrounding territory (chora).

Ancient Greek household management (oikonomia) in the oikos was a more complex undertaking than it is in the modern typical family home (Finley, 1983). In fact, the term oikonomia was often used in a broader sense and implied a managerial process (Booth, 1993). According to Finley (1983), oikonomia in the oikos is about managing a community (koinonia). Actually, koinonia also means partnership (Booth, 1993), and managing it seemed more like managing a small village. The management of such a community can be compared to managing a whole state or a contemporary business organisation. This is why, the Ancient Greek Philosopher Xenophon's work *Oeconomicus*, which was dedicated to organisational management, has had a wide appeal for many centuries, both in Greece and internationally (Sewell, 1925).

According to Dierksmeier (2009), Aristotle did not view the household (oikos) as a separate economic entity from the political community. He viewed it as an integral unit of the state (polis). Likewise, the business organisation should not be viewed as profit – making machines first and then wonder how such a mechanical entity could come to have social responsibilities (Solomon, 2004). Instead, from the organisational foundations, companies should be viewed as corporate citizens with social responsibilities (Rammata, 2011). According to Porter and Kramer (2006), the organisation that follows the path of Aristotle's economic behaviour should pursue strategies that integrate social responsibility, not as an added extra, but as an integral part of day-to-day operations.

In the ancient core-based household, the term oikonomia referred to a wide concept of diverse management (Pantelis, 2008). According to Tsakonas (2012), the term oikonomia included ruling over family members (parents and two to three children, and perhaps one or more grandparents). For larger oikoi, it also included the management of servants (or slaves). The function of a household steward (epitropos) was evident in taking the role of a housekeeper, waiting maids and farm or field workers (Sewell, 1925). According to Pomeroy (1994), the term epitropos can be correlated with a foreman or supervisor, in modern business terms (often present in Greek organisations). Kitto (1957) estimated that there was roughly one slave for every free ancient Athenian. Half of those ancient slaves provided domestic

services and the remaining were occupied with production (Kitto, 1957). The free citizens were called *politai* (singular: *politis*). Slaves were not the basis of economic life of the Ancient Greeks (Amemiya, 2004). However in Sparta, the slaves outnumbered the free citizens and the slave proportion of the population had an increasing trend over time (Hodkinson, 2010). Socrates emphasised the need for good management of labour forces within the *oikos* [Xenophon(f), (431BC - 350BC)]. Socrates suggested the use of encouragement for creating a bonded internal community, the provision of training and rewarding productive (while punishing unproductive) behaviour [Xenophon(f), (431BC - 350BC)]. This type of management tends to have a wide appeal in modern Greece (Zacharia, 2008).

Substantial work on the way Archaic Hellenic thinking may be viewed in today's business environment has been carried out by Doukas (2005). Below, there are some of the very interesting extracts from Archaic Hellenes philosophers and historians. Original texts, with accompanying translation may be found in (www.perseus.tufts.edu). The translation featuring in the following text has been altered slightly, where Doukas (2005) had disagreements with its accuracy.

"All that has been done, whether justly (well) or contrary to justice (not well), not even Time, the father of all things could undo the outcome" (Pindar, 476 BC, 2, 15). According to Doukas (2005) this was one of the first references, where time was associated with quality. The link between these two fundamental elements of modern project management has its roots in Ancient Greece (Varoufakis, 1996).

When it comes to participative management, the Ancient Greeks were pioneers, because every citizen had a duty to participate in the governance of the *polis* (city), regardless of wealth, class, or skill (Lang, 2004). Voluntary participation was very high and citizens who tried to evade this duty were fined and publicly disapproved (Mosse, 2003). Herodotus (480BC - 420BC, 1, 197.1) discussed about the idea of the Babylonians exploiting all available knowledge concerning medical care and illnesses: *"I come now to the next wisest of their customs: having no use for physicians, they carry the sick into the market-place; those who have been afflicted themselves by the same illness as the sick person's, or seen others in like case, come near and advise him about his disease and comfort him, telling him by what means they have themselves recovered from it or seen others recover. No one may pass by the sick person without speaking and asking after his sickness."* This indicates the importance of shared knowledge in any societal arrangement. Greeks have kept such interactions for information sharing even today (Oikonomou, 2006). Typical examples of knowledge transfer

systems within modern organisations are quality circles, suggestion schemes, and intranet based forums (Martin, 2010).

Gorgias (483BC-380BC, 11.8), in an analogous discussion about the essence of knowledge and the power of the mind argued that: *“The mind is the ultimate despot, which with micro mass and without even being visible, creates divine works”*. From the writings of Xenophon, in *Memorabilia*, Socrates dogmatically taught that knowledge is a virtue (arête) (Bonnette, 1994). This emphasises the importance of knowledge that is so intensely praised in today’s organisations.

According to Chia (1999), the association of change with process thinking can be traced back to the Ancient Greek philosophers Heraclitus and Parmenides. Rescher (1996) posited that the antecedents of process philosophy reach back into Ancient Greece and that Heraclitus may be seen as the founding father of process philosophy. Aristotle (1993a, 1993b) approached the concept of process change by distinguishing two meanings of the term ‘becoming’. One meaning of becoming is associated with genesis (something is generated) and the other meaning is associated with change (kinesis), i.e. when something becomes something else. Aristotle stated that in the process of becoming, a potential is realised (Weik, 2011). Thus, the term becoming, under the notion of genesis, depicts a transition from non-being to being or from potentiality to actuality (Tsoukas, 2002).

An example of genesis is a piece of metal that after some manufacturing, it becomes a component of a machine. The metal had potentiality that turned into actuality. This is applicable to intangibles too. For instance, when people gather to discuss a solution to a problem, they combine their ideas (potentiality) to generate a solution (actuality). The solution may even take the form of a business process, as is typically the case in collective business process management (Panagiotou, 2013). What is interesting in the notion of genesis of a process, according to the Aristotelian thinking, is that the concept of becoming is time independent. This means that during the conception of a process, all that is required is a succession of a before and an after status, which are not temporal (Tsoukas, 2002).

The other Aristotelian option is to view a business process as a transformation of an input into an output in the sense of changing something that pre-existed into something else (kinesis) (Weik, 2011). Aristotle (1993a, 1993b) viewed this as a process that implies a movement towards something that is not yet actualised. This type of process is time dependent. For example, a marketing business process may be measuring customer satisfaction by using questionnaires. The process changes if the existing questions are altered, or new questions are included, or if old questions are removed from the questionnaire. However, it still remains a business process for measuring customer satisfaction.

Predicting the outcome of change efforts, particularly in large organisations can be very difficult, regardless of how well a change programme is designed and implemented. According to Lewis (2009), the ancient Greek philosopher, poet and lawmaker Solon was among the first to depict humans' inability to understand completely the ultimate consequences of their actions. Solon(a) (640BC - 560BC, verse 65-70) stated in his 13th poem that success cannot be assured due to limited control of fate: "*There is risk in all actions, and no-one knows how something, having started, will end up. One man, attempting to do well but not seeing ahead, falls into great and difficult calamity. To another acting badly, the god grants good luck in all things, releasing him from his folly.*" This does not mean to say that Solon was against any attempt to avoid fate and that change is futile. On the contrary, Solon was a supporter of learning from one's mistakes; there may be no guarantee of success, only a guarantee of failure, should one act in a way contrary to the requirements of justice (Lewis, 2009). Even though belief in fate is widespread in the modern Greek culture, embracing change is a basic requirement to at least avoid failure (Manousakis, 2003).

When designing new or changing existing business processes, uncertainty is usually a deterring issue (Morris, 1998). The ancient Greek philosopher, Solon(a) (640BC - 560BC, poem 13) has explicitly dealt with the issue of uncertainty. Solon described the endeavours of various craftsmen, equivalent to the endeavours of today's business process owners. Solon perceived that the common aspect to all such activities is the requirement for intense effort, aimed at the achievement of values, with no guarantees of success (Lewis, 2009). This uncertainty may lead into a pessimistic attitude of people's inability to control the direction of process outcome, similar to the inability of controlling life. However, instead of seeing process owners as lacking free will and restricted by organisational fate, Solon's teaching can reveal an alternative perspective. The process owners' ability to understand the long-term consequences of their actions requires prior existence of long term goals (Lewis, 2009). Process owners can then embrace Solon's end goal view, to realise the value and the reasons for the existence of a process to cover a need.

This section reviewed some of the most influential aspects of AGP on the operation of contemporary Greek organisations, including Greek SOEs. The next section reviews, in more depth, the influence of AGP on CM in contemporary Greek organisations.

2.4 The influence of Ancient Greek Philosophy on Change Management

Heraclitus was among the first of the Ancient Greek philosophers to recognise that change is inevitable and natural, regardless of people's resistance to it: *"Everything flows and nothing abides; everything gives way and nothing stays fixed"* (Wheelwright, 1959, p.20, p.29).

The main focus of this research project is Change Management (CM), particularly for Greek SOEs. Both in the introduction chapter and the previous sections of this chapter, it has been established that Ancient Greek Philosophy plays an important role in the formation of the modern Greek culture. This section focuses on the influence of AGP on CM, particularly as an underpinning cultural background of Greek organisations. The literature sources about AGP and CM are substantial. In order to keep the literature review in perspective, the review of AGP in this section concentrates on the CM model of Pettigrew et al. (1989). The aspects of AGP that were found to be relevant to CM were categorised under the context (why) of change, content (what) of change, and process (how) of change, in line with Pettigrew et al. (1989) and are reviewed in the following three sub-sections.

2.4.1 Context of Change

This sub-section explores the Ancient Greek origins of the context of organisational change, which is relevant to the national economic, political, and social environment, as well as the organisational strategy, structure, culture, management and politics of the organisation (Pettigrew et al., 1989). In short, this refers to the understanding of why the change is needed.

- **Value of Objectives**

Aristotle(k) (384BC - 322BC) talked about the essence of what is valuable in human life, and he believed that human beings (as well as organisations) have end goals, that they strive to reach. The Aristotelian emphasis on what is valuable in life can be linked to the concept of adding and recognising value in objectives for change and the ways to achieve them (e.g. by changing business processes). Aristotle(k) (384BC - 322BC) believed that end goals (or long term visions) of humans are ultimately good things. In this syllogism, something is good and valuable, when it serves a certain function and it can be exploited to achieve other ends and goods.

Lear (1998) argued that according to the Socratic approach to change, employees being asked to move forward with a change programme, should actually refuse to do so, until a clear reason and direction for moving on with the change is known. Socrates justified resistance to change, especially when there is no clear direction and objectives to support the reasoning behind the change (Alachiotis, 1997). This is very important, because it suggests all change that is generated from an authoritarian organisational system should be refused, until it is justified. The Socratic justification of resistance to change makes the need for participative management and employee empowerment essential for organisational change programmes (Papoulias, 2002).

- **Happiness**

Socrates taught that the ultimate goal in life (and reason of living) should be the pursuit of happiness (eudaimonia) (Alachiotis, 1997). This is a significant milestone, because in today's complex and large organisations, people may often find themselves pondering about the connection between the corporate mission and individual goals and motivations.

Aristotle (384BC - 322BC), in line with Socrates, defined happiness (eudemonia) as the ultimate good for human life, as it is universally sought for its own sake. Thus, he suggested that not wealth, but a communal and virtuous lifestyle leads to happiness.

In fact, the translation happiness is somewhat restrictive (Bruell, 1999). Eudaimonia is not only about unrestrained accumulation of material means, neither is it an endless pleasure-seeking activity. For Socrates, there were two main sources of eudaimonia: (a) the way of the philosophic life which is somewhat passive and (b) the way of the noble and good human being (kaloskagathos), which is more active (Lear, 1998). The Socratic way of the philosophic life aimed at unlimited acquisition of knowledge, followed by minimal gathering of material goods and bodily pleasures (Strauss, 1970). The other Socratic view of eudaimonia involved action for good and noble things (Bourriot, 1995). Such examples were maintaining a good condition of the body, the soul, the household (or business), and expanded towards ensuring the well-being of friends and the city (polis). In modern organisational terms, this is similar to the promotion of employees' health, entertainment, workspace tidiness, team-working and company-wide participation for quality (Varoufakis, 1996). Diener (2004) suggested that good social relationships and enjoyment at work lead to well-being, which in turn, leads to good social relationships in a virtuous cycle pattern. On the contrary, he argued that people suffer when they have poor relationships in groups. Diener (2004) concluded that well-being at work caused economic and non-economic desirable

outcomes, since happy workers are better organisational stakeholders that help each other synergistically.

Diener (2004) argued that measuring the degree of happiness as a function of economic indicators is limited. In countries with steeply rising economic output, there has been no equivalent increase in life satisfaction during the same period (Diener, 2004). On the contrary, there was an increase in depression and mistrust. Happiness was positively correlated with economic indicators during the early stages of economic development of a country, when covering basic needs was essential (Diener, 2004). However, as societies grew wealthy, factors such as social relationships and enjoyment at work were more important than income (Diener et al., 2010)

Aristotle(e) (384BC - 322BC) linked the habituation into a virtuous life with happiness; he concluded that the point of living and the best life for humans is acquiring happiness. The justification was that all the living creatures (including humans) have a certain nature that drives all actions; the nature embedded in the human being differs from the rest of the living creatures, in that humans are impelled to live a virtuous life (Pantelis, 2008). Happiness occurs when needs and desires are fulfilled in a way that the human being can live in a virtuous way (Aristotle(e), 384BC - 322BC). In other words, happiness is a type of energy of the psyche that emerges by pursuing and succeeding in acquiring virtue. Aristotle's happiness is experienced through everybody's participation in activities; no surprise that active participation in the organisational context, spanning all levels has been such a popular theme in the managerial trends of the last few decades (Oikonomou, 2006). Aristotle argued that when people socialise, they can go through a virtuous circle (Burnyeat 1999). The initial assumption was that individuals have virtue embedded in their character, which impels them to do virtuous acts and stay away from evil deeds collectively (Burnyeat 1999). In this way they can grow wise collectively and can abstain from evil deeds more and be happy (Burnyeat 1999). In other words, acting ethically is an addictive process. The virtuous circle can be applicable to change agents' mode of operation. Change agents are the people responsible for directing, organising and facilitating change in organisations (Burnes, 2009). When the change agent becomes addicted to acting ethically, he/she also acquires sensitivity in recognising potential situations with ethical implications for the organisation (Vakola, 2005).

- **Ethical Conduct**

According to Lewis (2009), contemporary business ethics has its roots in the teachings of Plato, Socrates and Aristotle. Hartman (2008, p.314) tried to provide an answer to the management question: *"how do we know that we have any reason to be ethical?"* Hartman's

(2008) answer was that according to the Aristotelian philosophy, we know, because ethics is the art of good life (living well). According to Kupperman (1991, p.17) Aristotelian ethics is primarily about a person's character; the character is *"one's standard pattern of thought and action with respect to one's own and others' well-being and other important concerns and commitments"*. The epicentre of the Socratic thought treats ethics as the path for improving one's soul and the best reason for being ethical is making one's soul better and thus creating a happier person than otherwise (Hartman, 2008). Socrates taught that people are harmed by doing unjust or unethical actions (Plato(c) 427BC-347BC). Since the human psyche deeply knows what is just or unjust, it becomes better when one acts ethically and it gets ruined when one acts unethically. In fact, Plato's argument can lead to the conclusion that the psyche is harmed even by holding an opinion that is unethical, regardless if one acts on that opinion or not. This is very important, as Socrates valued the psyche higher than the human body (Nehamas, 1998). The practical implementation of this ethical philosophy in Ancient Greece should perhaps be mainly attributed to Solon. He was an ancient Greek politician and poet who used poetry to bring a new standard of excellence to ancient Athens (Lewis, 2009). Through the introduction of legislative reforms, Solon subordinated the pursuit of wealth to an ethical code and he demanded that those pursuing wealth should do so by abiding by that code (Lewis, 2009). Ethical principles that originate from Ancient Greece are adopted as fundamental cultural values, mostly passed from generation to generation in contemporary Greek families (Oikonomou, 2006).

- **Personal Gain and Responsibility**

Aristotle(a) (384BC - 322BC, 10, 1175a) believed that people are more concerned about issues that have a direct bearing on themselves and on those they love: *"people do much better, those things that please them"*. According to Aristotle(b) (384BC - 322BC, 8, 1159a) individuals are highly influenced by personal gain: *"each person wants beneficial things above all for themselves"*. This Aristotelian view of the human character is widely experienced in modern Greece and can be a basic factor of initiating change in organisations (Manousakis, 2003).

Aristotle believed that when something is personally owned, as opposed to belonging to others, the owner has the right to use it in a more pioneering way and to bear the associated risk (Morris, 1998). The owner may be prepared to take this risk, because even if the owned entity is destroyed, he or she may not be held responsible by anybody else. According to Aristotle(c) (384BC - 322BC, 12-15, 2, 1263b) *"The spirit of freedom and generosity may be manifested by the manner somebody uses personally owned goods. By the communally owned*

system, nobody can show freedom or go forward with generous acts". Rammata (2011) pointed out that this is a typical situation that can limit effectiveness of employees' work at SOEs. The Aristotelian syllogism disregarded the fact that in organisations, inefficiencies in the information flow, between the owners (shareholders) and those who manage resources may exist. The assumption was that the managers' decisions and actions were continuously monitored, and when inefficiencies affected the information flow, instantaneous acts of braveness might be observed, as the owners would never become aware of the situation (Zanakis, 2003). The key concepts of responsibility (or process) ownership and freedom to take action can be directly linked to the modern characteristics of change agents (Paschalidis, 2000). Those who want to successfully implement change are required to have control of their processes and freedom to manoeuvre within the organisational boundaries (Robinson, 2001).

- **Importance of Leadership for Change**

The necessity of allocating leadership positions to people who have the appropriate qualities was emphasised by Aristotle(d) (384BC - 322BC, 11, 2, 1271a): "*... every leadership post should be occupied by the person who is worthy of it, even if this person does not seek to take this post*". People leading change in an organisation should not only be empowered to operate, they should also be given process ownership and responsibility for process implementation and alteration (Morris, 2008). Xenophon(h) (431BC - 350BC, Econ. 21.9) perceived the quality of motivational leadership: "*in private industries, the man*" ... "*who can make the workers keen, industrious and persevering, he is the man who gives a lift to the business and swells the surplus.*" Thus, responsibility and leadership can be motivating reasons to change, resulting in business improvements (Stevenson, 1990).

Xenophon envisaged leaders for change as people of moderation, in the same way El Tarabishy (2006) believed that these characteristics should be possessed by change agents. Following the Socratic dialectic method, Xenophon(j) (431BC - 350BC, Mem. 1.5.1) asked the rhetorical question: "*if we were at war and wanted to choose a leader most capable of helping us to save ourselves and conquer the enemy, should we choose one whom we knew to be the slave of the belly, or of wine, or lust, or sleep? How could we expect such someone would either save us or defeat the enemy?*" The "enemy" of an organisation can be the competition. Thus, leaders who can implement change in an organisation should also set an example of personal moderation and self-control (Kawasaki, 2006).

Xenophon(g) (431BC - 350BC, Econ. 14.10) argued that tradesmen should recognise "*...the difference between ambition and greed*", [since] "*for the sake of praise and honour the ambitious are willing to work properly, to take risks and refrain from dishonest gain.*"

Similarly, those responsible for change should not succumb to the temptation of following unethical ways to satisfy personal ambitions (Antoncic, 2000).

- **Threat from External Organisational Environment**

The increased and immediate threat to an organisation's survival may be a significant reason to accelerate change programmes and enhance the development of change agents (Brunaker, 2006). Kyriazis and Zouboulakis (2004) provided a success story from Ancient Greece that illustrated the strong links between change management and the power of change agents (i.e. the individuals that can take responsibility and facilitate change). Kyriazis and Zouboulakis (2004) considered the example of the Ancient Greek state of Athens that was under high threat of invasion from a large naval Persian power in 480BC. The Athenian polis had very little military naval power and experience until that time. However, the immediate threat of invasion from the East was the decisive factor in stimulating the creation of a military fleet, within an unprecedented short amount of time, which defeated the much larger Persian fleet (Burn, 1984). That success was rooted in an enormous institutional change programme in the Ancient Athenian Polis (Tsakonias, 2012). This programme granted highly regarded civil rights and citizenship status to lower classes of people living in the area, in exchange for building or manning the fleet (Kyriazis and Zouboulakis, 2004). This undertaking was ultimately successful, due to the entrepreneurial spirit of the population that had to rely on financial incentives to gain quick know-how and implement it (Varoufakis, 1996). The money originated from two sources: (a) silver mined in the region and (b) 100 rich Athenians assigned with the task of financing the building of one ship each (Kyriazis and Zouboulakis, 2004). In business process language, the 100 rich Athenians were assigned with the ownership of this activity. Both the rich and the poor Athenians, who were involved in this project had to act as change agents to achieve the required outcome (Kyriazis and Zouboulakis, 2004). The above example of the Ancient Greek polis-state can have many parallels to today's organisations. The threat of invasion is similar to the threat of international competition. This may lead to the need for quick and sustainable institutional or organisational change, which relies on change champions (Tsakonias, 2012).

2.4.2 Content of Change

This sub-section examines the Ancient Greek origins of the content of organisational change, or the particular areas of the organisation and its operations that need to be transformed, and whether the nature of change is gradual or fast, or based on technological change (Pettigrew et al., 1989). In short, this refers to what needs to change.

- **Excellence and Competition**

Homer (750BC - 650BC, 6, 208) highlighted the willingness to achieve excellence and the competitive spirit that should exist among people: *“one should not only try to be always excellent in what one does, but also to surpass the others”*. Xenophon was among the first philosophers to write about competition beyond the athletic regime in Hiero (Doty, 2003). Xenophon talked about competition in farming and argued that Greece would *“make great progress if prizes were offered for the farm or the village that can show the best cultivation, and many good results would follow for those citizens who threw themselves vigorously into this occupation”* [Xenophon (c), (431BC - 350BC), Hiero, 9.7]. Competition among modern organisations and even among employees or departments is a common observation nowadays. The competitive spirit (particularly fair competition) is highly desirable and embedded in the Greek culture (Pantelis, 2008).

- **Embracing an Entrepreneurial Spirit**

Zanakis et al (2003) and Tsakonias (2012) argued that Greek SOEs need to operate much more in an entrepreneurial manner than they currently do. The entrepreneurial spirit was forged in the Ancient Greek culture with the establishment of a free market entrepreneurial economy, in the period between 825 and 336 BC (Moore & Lewis, 1999). In modern terms, the entrepreneurial spirit is evident in designing and pursuing a new business or process to be efficient to survive in a competitive market (Yetisen et al., 2015). The main characteristics of the Ancient Greek economy that were based on entrepreneurship were: (a) the legislative autonomy of the cities (poleis), promoting trade; (b) the use of pottery drawings for advertising; (c) the use of coins for trade (6th century BC); and (d) the operation of private banks (Kyrtatas, 2013). The legislative, political and social reforms during the 6th century BC in Greece prevented the creation of large land ownership and facilitated the flourishing of many entrepreneurial businesses (Finley, 1983). These businesses were involved in trade, ceramics, metalwork, textiles, shoes and building materials (Tsakonias, 2012). Exploitation of public copper and silver mines by private businessmen was also allowed, by paying the state a

small percentage of the proceeds in return (Zanakis et al, 2003). This is very important, as the ancient entrepreneurial spirit is believed to have remained forged in the Greek culture over the centuries (Zanakis et al, 2003; Tsakonas, 2012).

- **Talent Match**

The significance of having the right people for the right jobs in any organisation was underlined by Plato(a) (427BC-347BC, 4, 433a): “*each individual should be in practice of the activity they have a talent for*”. This can be applicable to all employees in any organisation. Greek SOEs need to match the individual talents of their employees with their corresponding roles, so that entrepreneurship can be promoted (Zanakis et al, 2003; Tsakonas, 2012). Intrapreneurship is the act of behaving like an entrepreneur while working within a large organisation and can change the organisation, so that it behaves in an entrepreneurial manner (Pinchot, 1985). Intrapreneurs are people who have intrapreneurial talent and special characteristics, such as imagination, intuition, authority, will, sociability, flexibility, and energy (Lessem, 1988). The talent of intrapreneurship fuels intrapreneurs’ actions and makes their endeavours to succeed (Linecker, 2002). Therefore, following Plato’s logic, change agents should have the intrapreneurial talent (i.e. the capability of implementing intrapreneurship (Lessem, 1988). If those talented individuals were not allowed to take advantage of their intrapreneurial talent in the past, then the organisation should change to enable them to do so now (Kenney, 2008). Identifying the people within the organisation that have intrapreneurial qualities (talent) is the first step towards successful process actualisation and change (Luh, 2000).

- **Process Ownership**

In Xenophon’s *Cyropaedia* (Ambler, 2001), that translates as *Cyrus’ Education*, there is a renowned philosophical approach to the concept of ownership, in an effort to create a metaphor for process ownership. There was an example, where one big boy, who owned a coat, that was too small for him, had taken an oversized one from a smaller boy. In compensation, the big boy had given the discarded smaller coat to the small boy. Xenophon concluded that these actions, even though they violated the laws of private property, were appropriate and fitting, as both boys benefited from the exchange. This way of thinking is relevant to business process ownership in today’s organisations, so that each process fits in the best possible way with the process owner (Panagiotou, 2013). This means that the organisation’s leadership should seek talents in each employee and assign them ownership of the matching processes. If a person is not talented in handling efficiently and effectively a

specific process, he or she should let process ownership go to another person, who is a better match to this process (Mouzoulas, 2003). The above example from Xenophon can also be associated with the concept of change that is necessary to render employees' lives more effective. In other words, organisations should change internally, so that the redistribution of process ownership can provide the optimum fit between individuals and processes (Panagiotou, 2013).

Xenophon(c) (431BC - 350BC), in the Constitutions of the Laecedaimonians (ch.6, sect.4) elaborated further on the concept of ownership of resources: *“those who had plenty, should leave behind the prepared food, and those who needed food should break the seals, take as much as they wanted, seal up the rest and leave it behind.”* What Xenophon meant was that private property rights should be limited with the aim to maximise the effectiveness of possessions' usage. In other words, the owner of private property should allow usage by non-owners too. This view is evident in today's organisations in the effort to maximise usage of the available resources (including human), by breaking down the strict barriers of departmental resource ownership (Mouzoulas, 2003). This has a distinctive impact on the implementation of a Business Process Management scheme, particularly in the allocation of resources for process completion (Panagiotou, 2013).

Aristotle(n) (384BC - 322BC) in [Politics, 2(1263a), 40] also talked about the concept of ownership: *“It is clear therefore that it is better for possessions to be privately owned, but to make them common property in use; and to train the citizens to this is the special task of the legislator. And moreover to feel that a thing is one's private property makes an inexpressibly great difference for pleasure”*. Drawing a parallel line from the Aristotelian privately owned possession, to today's ownership of processes, Aristotle's view that processes should have owners is revived (Doukas, 2005). Moreover, especially in complex processes, the process actors or participants should be empowered to micro-manage their activities, and influence the alteration of the processes (referring to the Aristotelian common property in use) to achieve improvements (Panagiotou, 2013). However, there should be organisational policies (referring to the Aristotelian legislator) to define the extent of this influence for improvement (Mouzoulas, 2003).

- **Complexity Minimisation**

Process ownership can be affected by the degree of complexity of process interactions; defining complexity is not a trivial task (Waddington, 1977). There is vagueness in the distinction between a simple and a complex activity, which makes it difficult to find a way of measuring the complexity of a system. Casti (1994) suggested that a distinction between the

simple and the complex can only be unclear. Axelrod (2001) connected the concept of complexity to the number of constitutive parts and the manners in which these parts are interconnected together. Furthermore, the observer's perception of the system greatly affects the definition of its complexity (Houchin, 2005).

To minimise complexity, the ancient philosopher Xenophon was a proponent of the division of labour and activity specialisation, through pursuing excellence (high quality), in what one does (Ambler, 2001). Specialisation is also highly regarded in modern organisations, particularly for the allocation of processes, activities and tasks to corresponding owners (Manousakis, 2003). Socrates argued that specialisation of activities and seeking excellence in specialised areas of work entails the advantage of increased speed of production [Xenophon(i) (431BC - 350BC)]. This is equivalent to allocating skilled personnel to activities and tasks to contribute in the production of process outputs, in the most efficient way.

- **Internal Marketplace of Processes**

Gounaris (2006, 2008, 2012) has carried out extensive research on the content of change (i.e. what needs to change) in Greek organisations. The concept of an internal marketplace is believed to be compatible with the Greek organisational and national culture and may assist in implementing change (Gounaris, 2006, 2008, 2012). The internal marketplace of business processes is complementary and similar to the concept of an external marketplace of services, and falls under the broader notion of marketing (Gounaris, 2008). The fundamental idea of a contemporary internal organisational marketplace can be rooted back to the marketplace (agora) of Ancient Greece and can be a comprehensible concept for modern Greeks (Gounaris, 2012). Plato and his student Aristotle, discussed the concept of the marketplace with special reference to agriculture, which they believed to be the most desirable and natural occupation (Monieson, 2010). Plato realised that strong, healthy farmers could not spare their time effectively at the marketplace, just to wait for somebody to buy their products; a permanent workforce had to be maintained for this purpose (Zanakis, 2003). This type of workforce that Plato believed was not qualified to be good farmers, would consequently have to carry out the necessary but distasteful job of being merchants of the state (Makris, 2006). According to Whittaker (1947), Plato suggested that the merchant's job should be given to the physically weak and the non-citizens. The rate of profit, going to the merchants, was regulated by the guardians of the state (Lang, 2004). Even though Plato despised the traders, he recognised that the middleman's functions were necessary through the division of labour (Tsakonias, 2012). Aristotle recognised the possession utility through the function of exchange

(using money as a medium of trade), which was necessary for the households to receive the goods they required (Monroe, 1930). Plato viewed the merchant middleman as necessary, but Aristotle saw the merchant as adding no value by his activities, and believed the merchant was a parasite, that should not be allowed to make profit from trading activities (Finley, 1983). The Aristotelian view of marketing was that it was a cost that had to be added to the product cost (Whittaker, 1947).

In contrast to traditional management, the bureaucratic barriers to change can be eliminated, by introducing an internal marketplace (Bartlett, 1993). Lacey (1997) and Gounaris (2012) described some fundamental characteristics of an internal organisational marketplace as follows:

- The processes that are carried out in the marketplace remain predominantly within the organisational boundaries;
- Resources are not allocated to providers by bureaucratic decision, but by internal customer demand and choice;
- Execution of business processes is separate from their financing and is linked to process output desirability (perceived value);
- Resources are managed by process owners and are allocated to the processes;
- Prices for process outputs are negotiated between the purchaser and the provider within a regulated framework.

Halal (1994) and Gounaris et al. (2010) suggested that change agents should be able to literally buy and sell business processes internally, in order to provide services both internal and external to the organisation. Halal (1994) argued that in internal marketplaces, change agents can be given the opportunity to circumvent bureaucracy and internal monopolies of processes to implement change. According to King (1995) and Gounaris (2012), in traditional hierarchical organisations (e.g. Greek SOEs), individuals are rewarded for following directions and have little or no organisational incentive to take risks and be creative. Nevertheless, some employees may exist in organisational hierarchies, who exhibit strong personal motivation. Such individuals exist in Greek SOEs, however, they rarely have management support to set exemplary cases for others to follow (Doukas, 2005).

According to Gounaris (2012), the internal marketplace operation can be more effective in bringing about change, when it is driven by the value of the process outputs, similar to the perceived value of services in the external marketplace, where potential customers pay in accordance with supply and demand rules. Heard (1993) referred to process output value as being what the (internal or external) customers get, in terms of benefits and quality from the purchase of a service versus what they pay. Holbrook (2005) suggested that the value of

output can be subject to the objective perception by the customer, and can be dynamic over time.

2.4.3 Process of Change

This sub-section examines the Ancient Greek origins of the process of organisational change, which recognises historical and continuing struggles for power accumulation by individuals and groups (Pettigrew et al., 1989). In brief, this refers to how the change should be implemented.

- **Socratic Dialogue**

Skordoulis and Dawson (2007) argued that the Socratic dialogue is a powerful tool to enhance employee involvement and commitment to collective change. The main enabler of change in Socratic dialogue is the ability to challenge established assumptions, doubt the validity of a single adopted truth and emphasise the multi-faceted nature of change processes (Buchanan & Dawson, 2007). Socrates believed that insight into one's own experiences can best be acquired through mutual, critical enquiry (Nelson, 1940). People that adopt the Socratic way of thinking discover that they cannot clearly define ideas and concepts they previously held with certainty, and therefore further curiosity and open-minded reflection is generated (Nelson, 1940). Socrates' underlying theory was that there is only one universal truth that judges what is good and bad, what is right and wrong and what is just and unjust (Alachiotis, 1997). Socrates also taught that each individual has this universal truth embedded in their psyche, but people do not always allow this truth to surface; they keep it buried inside (Makris, 2006). Thus, according to the Socratic logic, one can make someone reach this universal truth by asking a series of questions that follow a logical path (Dorion, 2001). The selection of questions and the path they follow is very important to facilitate the interlocutor to reach the truth (Van, Hooft, 1999). Then, the individual can compare his/her initial opinion with the truth and easily judge whether that opinion was right or wrong. In this respect, the Socratic questions are more important than the answers because they are chosen in such a way that the answers are logically predictable already (Simpson, 1997).

Socrates could lead his conversational partners to recognise that although they viewed their lives as very significant, they did not deeply understand what they were doing, or what was the reason for choosing to do one thing instead of something else (Lear, 1998). The Socratic dialogue – as opposed to a standard discussion – aims at consensus, or in other

words, the conclusion of a universal truth (Scordoulis and Dawson, 2007). Organisations and companies that are in a process of change can use the Socratic dialogue to challenge basic norms, values and goals and promote alignment of concluded opinions across all levels (Scordoulis and Dawson, 2007).

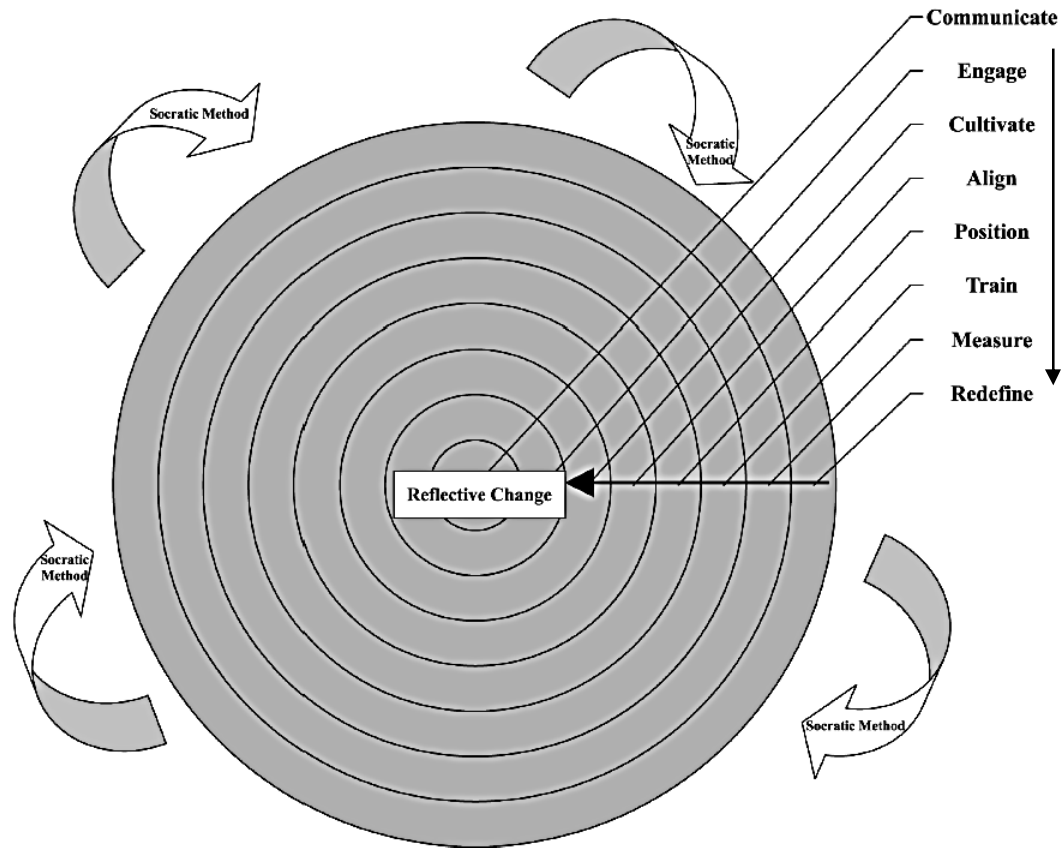


Fig. 2. 1. Implementation of change through a Socratic dialogue loop framework. Source: Skordoulis and Dawson (2007).

Skordoulis and Dawson (2007) suggested the implementation of Socratic dialogue in managing change by means of a series of loops that facilitates debate and engages employees by invoking ownership of the change (Fig. 2. 1). This loop-based framework draws on Plato's idea of the Ancient Greek Polis, which symbolises the organisation (Miliotis, 2007). This framework facilitates participative change by reducing restraining forces, rather than pushing for change (Gray and Stark, 1988; Weisbord, 2004). Collaborative change is necessary in order to be effective (Burke, 2006). The suggested Socratic method for change is as follows (Skordoulis and Dawson, 2007):

- I. Communicate the need for change using examples;
- II. Engage employees to create a marketplace (agora) of reflection to instigate support and commitment;

- III. Cultivate a trust environment in the marketplace to minimise the development of a blame culture and maximise free and open dialogue;
- IV. Align unconventional ideas with long-term vision to accommodate lateral thinking;
- V. Position means commitment to support the new vision and remove reluctance to take action;
- VI. Train the agora (i.e. the marketplace of people with democratic input to decisions) to take action;
- VII. Measure success and reward realistically, during the progress of change;
- VIII. Redefine objectives and processes, learn from the positive and negative outcomes;
- IX. Close the loop by re-communicating the need for change.

The above method can be implemented during the data collection stage of a research project. In particular, the marketplace concept (agora) can be applicable in focus group discussions. The main criticisms of the above Socratic method are: (a) the time-consuming nature of decision making by participation; (b) the danger of people contributing negatively about characters rather than being constructive about the content; and (c) based on the power differentials of the participants, suppression of contribution from various groups of employees may be observed (Skordoulis and Dawson, 2007).

- **Induction for New Recruits**

Xenophon(k) (431BC - 350BC, Mem. 2.1.31) provided interesting arguments about reducing resistance to change by suggesting the concept of habituation in a virtuous and industrious way of life at a young age; otherwise, one will find it very difficult to change later. In organisational terms, this doctrine can be related to the development of an induction programme for new employees which emphasises the organisation's values and mission (Mouzoulas, 2003). It is important during the induction stage of new employees (or during the introduction to process ownership) to communicate the message that top management is committed to provide individuals with personal responsibility for quality outcomes and operational improvements. If this policy is not emphasised early on, it will be more and more difficult to change employees' attitudes towards taking initiatives for improvements at work and being responsible to conform to the required process output as years go by (Panagiotou, 2013).

2.5 Summary

The main focus was to identify cultural parameters that can influence the change initiatives being conducted in contemporary Greek organisations. The literature review considered concepts and factors that originated from Ancient Greek Philosophy, which have an impact on the organisational culture of contemporary Greek businesses.

There are two main reasons why AGP is specifically important in order to understand Greek societal and business culture (Oikonomou, 2006; Karapostolis et al., 2006; Yannaras, 2009, 2015). The first is a sense of personal reassurance among contemporary Greeks that philosophical ideas that have lasted for thousands of years and are valid even today have proven their great value. The second is a sense of pride among the Greeks that they have a national continuity from their philosophical roots, which have been widely accepted as a way of life in many parts of the world. Both criteria of trust in worthiness of the philosophical ideas and pride of ownership due to continuity since ancestry need to be satisfied. For example, philosophies originating from the ancient Egyptians and the Chinese may be widely accepted even today. However, the Greeks do not consider them part of their culture due to the lack of ancestral relationship. Similarly, widely accepted philosophical ideas that emanated since the 19th century are not considered important in understanding contemporary Greek societal and business culture, mainly because they have not yet been tested for adequately long periods of time (Karapostolis et al., 2006; Yannaras, 2015).

In the model of Pettigrew et al. (1989), the organisation is perceived as a culture, which refers to the beliefs, meanings, and values among people in the organisation. This definition of organisational culture was adopted in this research project. Oikonomou (2006) and Pantelis (2008) argued that different philosophical approaches are required for the Greek organisational culture or for the Western organisational cultures (i.e. covering countries in the EU and the USA). Hayden (1998) identified two traditions in philosophies that are important for the study of western cultures. The first tradition contends that the world is but an imperfect and transient image of transcendent essences, causes, and ideas. The tendency here is to devalue the world as it is experienced, all for the view of a metaphysical sphere beyond the world we live in. The other tradition tends to sustain that the empirical world is the only actual source of beliefs, meanings, and values converted into experience. These traditions represent a notion of being as presence, or a notion of being as becoming, which are embedded in the western culture (Styhre, 2002). In AGP, the question of being can be distinguished between assumed, stable, or fixed categories and the reality of a multitude of fluid processes. Such distinction is more comprehensible by the Greek culture (Cavarnos,

2000; Pearson, 2001; Oikonomou, 2006; Zacharia, 2008; Pantelis, 2008; Hodkinson, 2010; Tziovas, 2013).

Karapostolis et al. (2006) and Yannaras (2015) argued that there is one core difference between the Greek culture and the Western culture in general. In the Western culture, the individual must abide by a set of rules and regulations, so that the society can function. In the Greek culture, the individual should continuously try for excellence and perfection for what the society values as virtuous. It is almost certain that ultimate perfection cannot be achieved. This is why the pursuit of excellence is a continuous cycle of effort – failure – effort - improvement, and so on, as if it was an athletic endeavour lasting a lifetime (Yannaras, 2015). In Greek culture, having rules and regulations does not make sense, since they are viewed as restrictions on the freedom to pursue excellence and ultimate perfection in what the society believes is valuable.

A considerable amount of literature was available, on the topic of AGP, but very little that linked AGP with CM. The researcher therefore focused on the research of contemporary scholars that linked Ancient Greek Philosophy and modern business. The researcher avidly read the ancient texts. Following the approach suggested by Saunders et al. (2012), the tasks involved in this activity were:

- I. Finding a relevant topic from contemporary authors;
- II. Cataloguing this topic for further analysis;
- III. Identifying the direct reference to the ancient text (e.g. a verse);
- IV. Finding a credible translation of the ancient text reference in modern Greek or English;
- V. Reading around (before and after) this reference until the topic was covered or changed to another topic;
- VI. Cataloguing any relevant themes;
- VII. If while reading around, there was a new topic that was relevant to this research project, then kept on reading and cataloguing the new topic respectively;
- VIII. Once the topic had been covered, reflecting whether the catalogued themes were actually relevant from the first reading and keeping/discarding accordingly;
- IX. Moving on to the next contemporary author's relevant topic.

The above approach was helpful in overcoming the challenges associated with conducting the literature review of AGP.

This research was conducted in a Greek State Owned Aerospace organisation. A summary of the change management practices that have been implemented in the Aerospace industrial sector (see section 2.1.1) is shown in Table 2. 1.

Factor	Comment
Organisational learning	It can result in reduced resistance to change and stronger competitive position (Hyland et al., 2002)
Cooperation between SOEs	Typical example is the formation of mutual benefits agreements for enhanced service and product delivery (Goldstein, 2002)
Man-hour based work	Evaluation of employees based on their time engagement with projects can lead to reduced motivation at work (Kea, 2008)
Planned change	Change needs to be planned from top management and it needs to be aligned with the mission and vision of the organisation (Berkhauer-Smith, 2009)
Adapting to external requirements	External organisational pressure and changes in the demand of the required services can be accommodated by internal changes in the culture and leadership (Smith, 2010)

Table 2. 1. Major change factors in the Aerospace industry (see section 2.1.1) .

Table 2. 2 summarises policy measures that impact on the operations of Greek SOEs (see section 2.1.2). This sets the context for the formation of change management initiatives.

Factor	Comment
Direct political intervention	Control and micromanagement by political centres in Athens has left very little room for initiative from local managers, and selection / promotion of personnel has traditionally lacked meritocracy (Lykogiannis, 2009; Papazoglou, 2010)
Bureaucracy due to state laws	Bureaucracy is generated by legislation that treats the public sector and the Greek SOEs in the same way; this causes inefficient operations (Makrydimitris, 2000, Lykogiannis, 2009).
Ineffective recruitment	Even though the Greek SOEs have often five to ten times more employees than required, the operations are ineffective due to lack of skilled personnel; recruitment is a way of ensuring votes for political parties (Varvaressos, 1952; Makrydimitris, 2000, Kazakos, 2008; Lykogiannis, 2009)
Customer satisfaction is not important	Reforms targeting Greek SOEs have not systematically recognised the importance of the customer (Makrydimitris, 1996; Papoulias, 2002; Lykogiannis, 2009).
Unproductive employee participation in management	Employee participation schemes in the management of Greek SOEs have not improved company performance (Papoulias and Lioukas, 1995)
Privatisation	Privatisation efforts have been generally unsuccessful due to the widespread bureaucracy, resistance by the trade unions, and the will from the government to intervene in the operation of Greek SOEs (Pagoulatos, 2001)

Table 2. 2. Unique characteristics of the Greek SOEs and the potential influence of AGP on the organisational culture for change (see section 2.1.2).

Table 2. 3 summarises the measures and immediate effects of the recent economic crisis on the operation of Greek SOEs (see section 2.1.4). An extensive study of the effect of those changes should be part of future research work.

Changes in Greek SOEs (Papoulias, 2010, 2012)	Immediate effect
<ul style="list-style-type: none"> - Deregulation of pricing policies - Reduction of salaries and pensions by 45% to 55% - Recruitment freeze - Replacement of only 20% of the retired employees - Equalisation of wages between the employees of the public sector and those of the Greek SOEs - Reduction of financial support from the public sector - Increase in the retirement age limit - Cancellation of the permanent employment status of new recruits 	<ul style="list-style-type: none"> - Reduction of productivity due to the increase of employee absenteeism caused by widespread industrial actions (Mavropanou and Mpalopitas, 2014) - Supply chain discontinuities due to local suppliers going out of business (Argeitis et al., 2011) - Reduced cash flow to Greek SOEs due to loss of consumers' income from increased unemployment rate (Mavropanou and Mpalopitas, 2014) - Cancellation of orders from the government that is in many cases the main customer to Greek SOEs, due to governmental budget cuts (Aleksiou, 2014)

Table 2. 3. The changes introduced in Greek SOEs due to the recent economic crisis, and their immediate effects (see section 2.1.4).

The most important element from Ancient Greek Philosophy that can be used for the management of change in Greek SOEs is believed to be the Socratic method of dialogue through questioning (MacIntyre, 1984; Bruell, 1999; Manousakis, 2003; Skordoulis, 2007; Kyrtatas, 2013). This method is based on the belief that there is one universal truth, and when a person learns to use his / her own reasoning, he / she can think and find the universal truth on his / her own (Lee 1987). Socratic questions can be categorised to provide answers of clarification, assumptions, reasons, evidence, viewpoints, and consequences (Paul, 1995). Further details about the use of the Socratic method are provided in the research methodology chapter.

The cultural influence of Ancient Greek Philosophy on implementing Change Management in Greek organisations was reviewed in section 2.4. This was explored using the theoretical model of change, developed by Pettigrew et al. (1989), for studying change in large organisations and SOEs. This model categorises change under the context (why) of change, content (what) of change, and process (how) of change. The findings of that categorisation are listed in the following three tables.

Factor	Comment
Value of Objectives	A clear reason and direction for moving on with a change programme needs to be communicated, in order to understand the value of the pursued objectives (Lear, 1998)
Happiness	Change should lead to the Socratic view of happiness that exists either as the acquisition of knowledge or ensuring the well-being of employees and the business environment (Diener, 2004)
Ethical Conduct	Change should result in an ethical state because it is naturally desirable by individuals and communities (Lewis, 2009)
Personal Gain and Responsibility	People are expected to be more supportive of change when there is a personal gain involved, and taking risks for improvement has higher chances of success when individuals are responsible for the change (Morris, 1998; Rammata, 2011)
Importance of Leadership for Change	Employees are expected to follow changes introduced by those who lead by example and are the first to implement the change, in addition to being moderate and moral (El Tarabishy, 2006)
Threat from External Organisational Environment	The threat to the survival of the organisation from external business environment can be a motivator to adopt change (Kyriazis and Zouboulakis, 2004)

Table 2. 4. Factors that originate from AGP and have a cultural influence on the context (why) of change for Greek organisations (see section 2.4.1), derived from the model of Pettigrew et al. (1989).

Factor	Comment
Excellence and Competition	Employees will accept change faster when they are continuously in a competitive mode and thrive for excellence in all that they do (Doty, 2003)
Embracing an Entrepreneurial Spirit	Change is evident when employees are motivated to design and pursue a new business or process to be efficient and to survive in a competitive market (Zanakis et al., 2003; Tsakonas, 2012; Yetisen et al., 2015)
Talent Match	Change should aim at placing the right people in the right jobs (Zanakis et al., 2003; Tsakonas, 2012)
Process Ownership	Each business process should have a person responsible for it and the power to change it; this person should have the capability and resources to ensure the process output is delivered (Doukas, 2005)
Complexity Minimisation	Division of labour, activity specialisation and pursuit of excellence are required to minimise complexity during change (Ambler, 2001)
Internal Marketplace of Processes	Change agents should be able to literally buy and sell business processes internally, in order to provide services both internally and externally to the organisation (Halal, 1994; Gounaris et al., 2010)

Table 2. 5. Factors that originate from AGP and have a cultural influence on the content (what) of change for Greek organisations (see section 2.4.2), in line with the model of Pettigrew et al. (1989).

Factor	Comment
Socratic Dialogue	The Socratic dialogue is a powerful tool to enhance employee involvement and commitment to collective change (Skordoulis and Dawson, 2007)
Induction for New Recruits	An induction programme for new employees, which emphasises the organisation's values and mission can strengthen the habituation of an industrious and virtuous way of work and minimise the resistance to change (Mouzoulas, 2003; Panagiotou, 2013)

Table 2. 6. Factors that originate from AGP and have a cultural influence on the process (how) of change for Greek organisations (see section 2.4.3), derived from the model of Pettigrew et al. (1989).

Chapter 3. Business Process Management and Change Management

This chapter reviews the literature about the value and the feasibility of Business Process Management (BPM) as a gateway of Change Management (CM). The main reason for focusing on BPM is the relatively recent governmental effort to use it to reform Greek State-Owned Enterprises (SOEs) (Greek Law 3429, Papoulias, 2005). By optimising and changing business processes in Greek SOEs, the objective is to turn historically government-funded organisations into self-sufficient commercial entities, capable of competing in the free markets.

The first section explores the reasons why, and how, organisations seek to implement CM. The second section reviews the main elements of BPM and how it has been implemented in Greek SOEs. The third section examines how BPM can impact on CM, particularly in large organisations and SOEs. The impact of these factors are reviewed from the perspective of the theoretical model of change developed by Pettigrew et al. (1989), for large organisations and SOEs. This model categorises change under the context (why) of change, content (what) of change, and process (how) of change.

3.1 Importance of Change Management (CM)

Torrington and Hall (2011) argued that we live in very turbulent times with constant change, creating a need for organisational strategy to provide a coherent view on how to deal with change that originates from the business environment. Today's business environment is global and complex and organisations have to adapt by continuously initiating changes in order to remain competitive and profitable (Carnall, 2007). Important organisational change may occur when implementing new technologies, through mergers or acquisitions, downsizing, restructuring operations, outsourcing, and when introducing new programmes such as Business Process Management (Dawson, 2003). According to Hayes (2010), the management of change involves the process of developing approaches to implementing changes in organisations. In other words, organisational change can be a business process on its own. Approaches to managing change must address a number of organisational factors such as leadership, communication, employee motivation, training and development (Burnes, 2009). Change management should be on-going, following a change process, because a proper understanding of how employees are likely to respond to change is central to managing the process (Porter, 2004).

Nadler and Tushman (1989) argued that change can involve one or several components of an organisational system, or a realignment of the entire system with an objective, affecting all key sub-systems such as strategy, work, people, and formal and informal processes and structures. When change impacts a large part of the organisation, the change is considered to be strategic in nature, but when the change is limited to specific organisational components, with the aim of maintaining or regaining congruence, it is treated as incremental (Wilson, 1992). A major challenge with change management is maintaining congruence of the organisational components in the system during change implementation (Molden, 1999). According to Cohen et al. (2001), organisational change involves moving from the known to the unknown, from relative certainty to relative uncertainty, from the familiar to the unfamiliar.

According to Lazarus and Clifton (2001), the impact and consequences of change on projects, organisations and people vary according to the type and nature of change, but most importantly according to how change is managed. Change should be managed to maximise the benefits, to minimise the penalties and ensure that both benefits and penalties are distributed equitably (Lazarus and Clifton, 2001). Senge et al. (2005) noted that in business, the word change means several often-contradictory things. Sometimes it refers to the external changes in technology, customers, competitors, market structure, or the social and political environment. Sometimes it also refers to internal changes such as practices, styles and strategies. Sustainable organisations depend on the sustainability of organisational values and processes (Hart, 2005). This calls for a change in management philosophy, whereby organisational actions will need to go far beyond technical fixes and embrace responsible and sustainable development values, beliefs and behaviours (Hart, 2005).

Dess and Picken (2000) considered the main factors that SOEs need to focus on, in their effort to change towards a free market orientation. These factors were innovation through internal entrepreneurship (intrapreneurship), flexibility through business process improvement, responsiveness to customer needs, and the creative redefinition of markets and opportunities. These factors have become important sources of competitive advantage in an increasingly interconnected global economy (Dess and Picken, 2000).

It is therefore, evident from the analysis provided in this section that CM requires careful consideration. This is because CM forms the basis of organisational survival through the interactions with the business and economic environment, and sets the contextual framework for implementing internal process improvements. In the case of Greek SOEs, the need to change in order to improve competitiveness and self-sufficiency is currently a very pressing matter (Paschalidis, 2000; Kazakos, 2001; Mouzoulas, 2003).

3.2 Importance of Business Process Management (BPM)

This section reviews the significance and the fundamental elements of BPM and how it has been implemented in Greek SOEs. One of the most recent efforts to reform Greek SOEs has included the implementation of Business Process Management (Greek Law 3429, Papoulias, 2005). By optimising and changing business processes in Greek SOEs, the objective is to turn historically government-funded organisations into self-sufficient commercial entities, capable of competing in the free markets. Therefore, the main reason for including BPM in this research project is the Greek government's will to use BPM as a major method of stimulating change in Greek SOEs.

This first subsection reviews the founding concepts behind BPM. The following subsections discuss the concepts of business processes, the associated activities, as well as the required resources. Then attention is on the concepts of business process modelling, analysis and optimisation.

3.2.1 Definitions and Historical Review

This subsection reviews definitions of BPM and some of the major historical aspects of developing BPM.

BPM is a methodological management discipline of discovering, modelling, analysing, measuring, improving, optimising, and automating business processes (Jeston & Nelis, 2014). Processes may either be repeatable or variable. Harmon (2007) conceptualised BPM in terms of aligning business processes with the organisation's strategic goals, designing and implementing process architectures, establishing process measurement systems and educating process managers, to manage processes effectively. BPM can be viewed as a management discipline, which assumes that organisational objectives can best be achieved through management of the organisation's business processes (ABPMP, 2013; wfmc.org). BPM is a method of improving corporate performance by managing business processes (Panagacos, 2012). BPM is the specification, improvement and management of a firm's end-to-end enterprise business processes in order to achieve: (a) clarity on strategic direction; (b) efficiency of the firm's human and capital resources; and (c) reliability and disciplined involvement in daily operations (www.bpminstitute.org). Even though it is not necessary, technologies are often used in conjunction with BPM. Dumas et al. (2013) viewed BPM as

the art and science of how work should be performed in an organisation, in order to ensure consistent process outputs and operational improvements concerning costs, delivery times, or defects. The main element in this approach is that BPM is not about improving performance of individual activities, it is rather about managing chains of events and decisions that produce added value to internal and external customers.

Smith and Fingar (2006) defined BPM as the process for building and perfecting the various business processes; they also presented eight common capabilities of BPM:

- Discovery: trying to understand how things are actually done, and not just prescribe the individual points of view of all the people involved;
- Design: mapping of the business processes, both internally and externally;
- Deployment: allocating all the new processes to all the parties involved, including people, applications or other processes;
- Execution: making sure that all participants follow the new process;
- Interaction: facilitating access of people to all the business processes through appropriate equipment;
- Control: maintaining the system in order to keep processes running well;
- Optimisation: the continuous effort for process improvement;
- Analysis of Processes: measuring effectiveness and efficiency.

BPM evolved from the concept of Total Quality Management (TQM) in the 1980s (Crosby, 1979; Powell, 1995) and Business Process Reengineering (BPR) in the 1990s (Hammer, 1990; Hammer and Champy, 1993; Davenport, 1993). BPR is a business management strategy that focuses on the radical restructuring of an organisation through analysis and design of workflows and business processes (Dodaro & Crowley, 1997). Following BPR, several Information Systems (IS) such as Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) received more attention (Jeston and Nelis, 2008). Further, with the developments in IS, BPM initially focused on information technology related aspects of business processes (van der Aalst et al., 2003; Reijers, 2003). It is perhaps only in recent years that researchers have more broadly considered BPM to be an integrated approach that moves beyond purely an IS focus (Rosemann and de Bruin, 2005; Box and Platts, 2005; Hung, 2006; Chang, 2006; Harmon, 2010).

The main differentiating factor between BPM and BPR is that in BPR the implementation of change is radical, while in BPM the implementation of change is more gradual towards continuous improvement. When processes become too complex or

inefficient, and gradual improvement through BPM does not deliver the required output, the entire processes can be radically redesigned. This is the typical case of implementing BPR. Anand (2011) compared the main differences between BPM and BPR as shown in Table 3. 1.

Business Process Management	Business Process Reengineering
Automation and reuse of existing processes	Processes are re-created from scratch
Implementation of lower risk and continuous change in a relatively small amount of time	Implementation of higher risk and radical change that generally takes a lot of time
Many processes can be improved in parallel	One major process is worked upon at a time
Gradual steps are taken that can be implemented in generally small amounts of time	Drastic changes take place that generally require longer time to implement
It does not usually require restructuring of personnel	It usually leads to lay offs

Table 3. 1. Comparison between BPM and BPR (source: Anand, 2011)

3.2.2 Business Processes

Business processes refer to a related sequence of work activities, which are performed across time and place, with a beginning, an end, and identifiable inputs and outputs (Davenport, 1993). Moreover, Hammer and Champy (1993), Darnton and Darnton (1997) and Al-Mudimigh (2007) regarded business processes as sets of activities that have one or more types of input and provide output, that is of value to the customer.

Volkner and Werners (2000) conceptualised business process as a sequence of states, which result from the execution of activities in organisations to reach a certain objective. Gunasekaran and Kobu (2002) suggested that a group of related tasks that together create value for a customer should be called a business process. Irani et al. (2002) viewed a business process as a dynamic ordering of work activities across time and place, with a beginning, an end, and clearly identified inputs and outputs. According to Wang and Wang (2005), a business process is a set of business rules that control tasks through explicit representation of process knowledge. Havey (2005) provided a simple definition of business processes as step-by-step rules, specific to the resolution of a business problem. A business process can be simply viewed as the way work is done in an organisation; this work can be cross-functional

and cross organisational boundaries (Panagiotou, 2013). For example, order fulfilment may span a multitude of organisational functions, from customer order to final delivery.

Business processes have process owners who are responsible for the governance of process performance and process change (Long, 2012). More specifically, process owners:

- Define the process objectives and the measures that are aligned with the organization strategies;
- Monitor and report process performance against KPIs;
- Synchronise process improvement with other process owners;
- Define and assist in business process change implementation.

Hammer and Champy (1993) observed that very often, organisations adopt about ten principal processes, such as: customer communication, strategy development, product development, order fulfilment, manufacturing development and so on. Smith and Fingar (2006) provided a list of support processes that are normally required as part of the principal processes, for the smooth operation of the business (see Table 3. 2).

Account Management	Organizational Learning
Advance Planning & Scheduling	Payroll Processing
Advertising	Performance Management
Assembly	Performance Monitoring
Asset Management	Performance Review
Benefits Administration	Physical Inventory
Branch Operations	Planning and Resource Allocation
Budget Control	Post-Sales Service
Build to Order	Problem/Resolution Management
Call Center Service	Process Design
Capacity Reservation	Procurement
Capital Expenditures	Product Data Management
Check Request Processing	Product Design, Development
Collateral Fulfillment	Product/Brand Marketing
Collections	Production Scheduling
Commissions Processing	Program Management
Compensation	Promotions
Component Fabrication	Property Tracking/Accounting
Corporate Communications	Proposal Preparation
Credit Request/Authorization	Publicity Management
Customer Acquisition	Real Estate Management
Customer Inquiry	Recruitment
Customer Requirements Identification	Returns & Depot Repairs
Customer Self Service	Returns Management
Customer/Product Profitability	Sales Channel Management
Demand Planning	Sales Commission Planning
Distribution/VAR Management	Sales Cycle Management
Financial Planning	Sales Planning
Financial Close/Consolidation	Service Agreement Management
Hiring/Orientation	Service Fulfillment
Installation Management	Service Provisioning
Integrated Logistics	Shipping
Internal Audit	Site Survey & Solution Design
Inventory Management	Six Sigma
Investor Relations	Sourcing
Invoicing	Strategy Development
IT Service Management	Succession Planning
Knowledge Management	Supply Chain Planning
Manufacturing	Supply Planning
Manufacturing Capability Development	Test
Market Research & Analysis	Time & Expense Processing
Market Test	Timekeeping / Reporting
Materials Procurement	Training
Materials Storage	Treasury/Cash Management
Order Dispatch & Fulfillment	Warehousing
Order Fulfillment	Warranty Management
Order Management	Zero-Based Budgeting

Table 3. 2. Typical support processes found in organisations. Source: Smith and Fingar (2006, p.53).

Prior to the implementation of business processes, organisations typically operated with Standard Operating Procedures (SOPs) which are step-by-step instructions designed to help employees carry out routine operations (Tenner and DeToro, 1997). Tenner and DeToro (1997) discussed the transition from business procedures to business processes. According to Tenner and DeToro (1997) many organisations either had documented procedures in the form of SOPs, or they relied on employees' experience (disseminated by on-the-job training). This practice could probably be adequate on certain occasions in the past. However, in today's complex dynamic system of business operations that need to be adaptable to external competition trends, the past practices are not adequate (Dawson, 2003). Most Greek SOEs are used to maintaining SOPs for most of their internal and external business operations, during the last thirty years (Maroudas, 2009). These documented SOPs are in textual format and major changes are rare, mainly because the task is considered too cumbersome to deal with (Panagiotou, 2013). Maintaining documented SOPs was one of the basic requirements in the ISO 9001 quality standard up to the 2000 version which introduced the concept of business processes instead. The main difference with SOPs was that they did not need to have inputs or outputs, nor any means of measuring their effectiveness and efficiency (ISO 9001, 2008). The 2008 version of the ISO 9001 standard recognised the fact that many organisations were finding the transition from SOPs to processes very difficult. For that reason procedures were viewed as lower level detailed steps that describe how a process step is performed (BSI, 2015).

The effective management of business processes, based on the definitions presented above, involves the concepts of activities and resources. According to van der Aalst (1995), the objective of a business process is the processing of cases, which needs the specification of: (a) the activities (i.e. partially ordered sets of tasks), and (b) the allocation of resources to tasks. Normally, business processes can be divided into various activities and the latter can be further subdivided into tasks (Panagiotou, 2013).

3.2.3 Activities – Tasks

This subsection provides a review of the main concepts behind activities in BPM. Activities are executable divisions of a process enacted by the actors, utilising the resources; activities are perceived by many authors as a central element that characterises business processes (Darnton, 1997; Harmon, 2007; Jeston, 2008, Panagiotou, 2013). According to van der Aalst (1998), activities can be viewed as transactions with the following basic properties:

- Atomicity: partial completion of the transaction is not acceptable;
- Consistency: the transaction leads to a predictable/repeatable outcome;
- Isolation: the qualitative outcome of one activity is independent of the number of identical activities running in parallel;
- Durability: the result of an activity may or may not be exploited, however, it should not disappear.

Zakarian (2001) suggested that a process can include a set of activities, arranged in a specific order, with clearly identified inputs and outputs; each activity, within a process takes an input and transforms it into an output that should have some value to internal or external customers. According to Kiepuszewski et al. (2003), activities, in elementary form are atomic units of work, and in compound form they modularise an execution order. Li et al. (2003) considered that an activity identifies an action, which can be characterised by a verb and an object, upon which the action applies. Activities are distinguished between manual and automated, depending on whether they are realised by a human or a software system.

Zakarian and Kusiak (2001) distinguished three types of activities:

- value adding: subjective and highly desirable by customers (internal or external);
- work flow: work is carried out across internal and external organisational boundaries;
- control: they control the two types of activities above.

Essentially, no activity should be executed without serving some purpose and ideally, they should all be adding some value for the customer (Luh, 2000).

Orman (1995) claimed that an activity can be further decomposed into tasks that are the smallest identifiable units of analysis. Similar opinions were expressed by van der Aalst (1998), Biazzo (2000), and Li et al. (2003). As an example, van der Aalst (1995) linked activities and tasks by suggesting that business processes are centred on activities, which in turn specify the set and the order of tasks to be executed, to achieve the goals of business processes. Tasks can be considered the smallest denominations of activities, which in turn can be considered parts of business processes (Panagiotou, 2013).

3.2.4 Resources for BPM

Resources should be allocated to activities, in order to schedule the business processes (van der Aalst and van Hee, 1996). According to Hofacker and Vetschera (2001) resources can be regarded both as process inputs and process outputs. Resources are often used by activities and are transformed or consumed to create the process output (Panagiotou, 2013). Li et al. (2003), and van der Aalst and van Hee (1996) considered a resource as any human, material and/or equipment that supports the fulfilment of activities. Biazzo (2000) suggested a more generic definition by including everything that is either used or modified by the tasks. Hofacker and Vetschera (2001) classified resources into information and physical objects. Castellanos et al. (2004) suggested that even though activities can utilise resources, resources can also execute an activity, implying that resources can be humans, raw materials, or equipment and machines. The main difference of this view compared to that of Li et al. (2003) is that resources do not simply have a supporting role, but can also control activities.

3.2.5 Business Process Modelling

Business process modelling is very significant in process management, since it is the main way of perceiving, communicating and documenting processes (Reijers, 2003). Prior to the conceptualisation and definition of business processes, workflows were used for modelling the execution of work, and are still widely accepted (Panagiotou, 2013). The Workflow Management Coalition (WfMC, 1999) has established the term workflow as the automation of a business process, in whole or part, during which, documents, information, or tasks are passed from one participant to another for action, according to a set of procedural rules.

According to van der Aalst et al. (2003), business process modelling is used to characterise the identification and specification of business processes, and includes modelling of activities and their causal and temporal relationships, as well as specific business rules that process enactments have to comply with. Volkner and Werners (2000) and Aguilar-Saven (2004) argued that business process modelling is essential for the analysis, evaluation and improvement of business processes, as it is used to structure the process, such that the existing and alternative sequence of tasks can be analysed systematically and comprehensively. One of the most important objectives of process modelling is to capture and facilitate communication of existing processes, by representing their activities and related elements (Lin et al., 2002).

One of the advantages of process modelling is that bottlenecks in the process executions can be identified, and process knowledge can be captured, structured and formalised (Havey, 2005). Aguilar-Saven (2004) suggested that business process models are mainly used to learn about the process (improving and streamlining), to make decisions on the process, or to develop business process software. According to Eason (1988), potential weaknesses in process modelling can be the inadequate representation of the work under investigation and the inability to depict frequent micro-changes in the process. As Stamper (1985) explained, garbage in leads to garbage out and consequently, during business processes modelling, one should focus on accurate information capturing and valid feedback.

3.2.6 Business Process Analysis

Analysis of business processes is usually needed due to the complexity of process design and execution, encountered in businesses (van der Aalst 1998a). The Association of Business Process Management Professionals suggested that process analysis is about understanding and measuring the success of the activities of a process in meeting the output goal (ABPMP, 2009). According to Panagiotou (2013), business process analysis is the activity of reviewing existing business practices and changing these practices, so that they constitute an improved process. Irani et al. (2002) suggested that businesses should not be analysed in terms of their various disaggregated functions, or according to the products that they produce, but in terms of the key business processes that they perform.

Li et al. (2004) presented a classification of business process analyses that can be conducted mainly at three levels:

- The logical level focuses on the logic of the sequence of activities; for example, input/output relationships are checked for consistency, resources are set when needed, and when there are options for choosing a path of activities, this leads to the appropriate tasks;
- The temporal level focuses on the interval dependency relations of a workflow with imposed timing constraints; for example, when two tasks of different durations need to be executed in parallel, then if the succeeding task requires output from both, there has to be adequate time allowed for the predecessors to finish;
- The performance level ensures operational efficiency of processes by evaluating the ability of the workflow to meet requirements with respect to Key Performance

Indicators (KPIs). KPIs are quantifiable measures of achievement against operational goals and are usually linked to business process outputs (Fitz-Gibbon, 1990).

Boekhoudt et al. (2000) justified the necessity for analysis of business process models in order to clarify the business process characteristics, identify possible bottlenecks and compare any potential process alternatives. Van der Aalst and Hofstede (2003) underlined the view that business process analysis should aim to investigate properties of business processes that are neither obvious nor trivial. Yet, business process analysis can be limited by subjective rather than objective approaches (Valiris and Glykas, 1999). Irani et al. (2002) argued that to understand and analyse a business process, it helps to recognise the sources of problems and ensure that they are not repeated in the new process, thus providing a measure of value for the proposed changes. Business process analysis is often crucial in better understanding the cooperation of processes, as well as identifying points, where changes in the processes are required (Harmon, 2010).

3.2.7 Business Process Optimisation

Optimisation of business processes is one of the strongest links between BPM and CM, due to the central concept of improvement (Chen, 2011). BPM requires the added value of business process optimisation, which provides the necessary means for bottleneck elimination and performance improvement to meet specified objectives (van der Aalst et al., 2003). Process optimisation does not have to be based on a purely mathematical optimisation; it can rather be about introducing changes to the process and checking whether they provide a higher value to the internal or external customers (Panagiotou, 2013).

Gunasekaran and Kobu (2002) claimed that usually a business process has to undergo fundamental changes to achieve significant performance improvements. According to Soliman (1998), the objectives of business process changes should be to improve the business processes and reduce costs. Aldowaisan and Gaafar (1999) suggested a method for process redesign which includes: (a) eliminating non-value-adding activities (e.g. redundant, rework and supervisory activities); (b) simplifying activities; and (c) combining activities and increasing the concurrency of activities. Zhou and Chen (2003) suggested that business process optimisation should aim to reduce lead-time and costs, improve product quality, and enhance the satisfaction of external and internal customers, so that the competitive advantage of an organisation can be retained. Reijers (2002) suggested that the goals of business process optimisation are often the reduction of cost and workflow time. However, Hofacker and

Vetschera (2001) underlined that the quality of process output should be taken into account, in addition to cost and time.

3.3 Business Process Management Impact on Change Management

Tinnila (1995) was among the first authors to discuss how organisational change was impacted by the implementation of processes, as well as the need to frequently reconfigure processes due to external organisational pressures for change. A business process can be perceived as a collection of activities that involve structured and semi-structured changes of inputs into outputs, leading to customer satisfaction as a desirable result (Panagiotou, 2013). This conceptualisation of processes not only relates BPM with the concept of change, but also brings into attention the issue of value adding, as perceived by the internal or external customers. Rub and Issa (2012) associated BPM with CM by viewing change management as a process on its own; they also argued that the change management process aims to ensure that all approved changes pass through an integrated process to evaluate the applicability of the requested changes.

Stoddard et al. (1996) argued that BPM goes hand in hand with CM through four key aspects:

- Cross-functionality, involving two or more functional areas in the organisation;
- The focus is on carrying out business processes rather than on technology or organisational structure;
- There is a continuous change in organisational design, culture, and information systems;
- Performance improvements in cost, quality, cycle-time, customer satisfaction, or market share.

According to Dawson (2001), process-based change should be less prescriptive and more analytical; the goal should be understanding and explaining, rather than directing and influencing processes towards some preferred end point. The process-based change is not against planning for change, it is rather pointing out that change can be unpredictable (Dawson, 2003). Thus, process-based analysis need not assume that change is emergent, rather it can be engaged to understand change, both as an emergent process, as well as a top-down planned process (Bailey et al., 2006).

Kettinger and Grover (2005) studied change management from the perspective of business process implementation and suggested the following principles of change through BPM:

- Change should serve the purposes of long term strategy that comes from senior management, but should also recognise participation of middle managers and line workers for the implementation and continuous improvement;
- Resistance to change needs to be addressed by focusing on the cultural aspects of the organisation;
- The existing organisational systems of work should be challenged and promotion of learning should be apparent;
- Information technology has to contribute towards knowledge sharing;
- Business processes should promote cooperation between departments as well as associated organisations;
- Processes should accommodate both continuous and incremental changes, as well as radical and sudden changes, depending on the contingencies at work;
- Changes in business processes need to be customer driven by adding value to the output, where possible;
- Even though change of processes is mainly an internal operation, the purpose should be the development of competitive advantage.

Ndede-Amadi (2004) argued that one key to effective process redesign and eventually a successful organisation is to focus on end-to-end process changes, which are closely related to the core competences of the organisation. Ho et al. (2004) noted that change of end-to-end processes is rarely a simple matter of planning to implementation, but rather a dynamic process of mutual adaptation between information systems, people and the business environment. McAdam and Galloway (2005) reported that the key organisational issues, when attempting to implement changes in core business processes were: team working, top management support, plan and vision, project management, monitoring and review, effective communication, software development and testing, the role of the project champions or intrapreneurs, and appropriate IS.

The review of BPM in this section has concentrated on the CM model of Pettigrew et al. (1989), as was explained in the introduction chapter. The aspects of BPM that were found to be relevant to CM were categorised under the context (why) of change, content (what) of change, and process (how) of change, in line with Pettigrew et al. (1989). The perspectives of context, content, and process are reviewed in the following three sub-sections respectively.

3.3.1 Context of Change

This sub-section reviews some of the major BPM factors that can have an impact on the implementation of CM in SOEs, from the contextual perspective of organisational change. The context of change refers to the national economic, political, and social environment, as well as the organisational strategy, structure, culture, management and politics of the organisation (Pettigrew et al., 1989). In simple terms, this refers to the understanding of why the change is needed.

- **Receptive Context of Change**

Pettigrew et al. (1992) developed a model of change receptivity (i.e. acceptance and adoption of change). The model analyses change efforts in order to serve large organisations' long term strategies that are driven by the top management. The economy, the market, and the politics (internal and external) need to be taken into account, in order to improve the organisation's competitive capability. One of the main underlying assumptions in this model is that change, particularly in large organisations, is not always a continuous incremental process (Pettigrew, 1987, 2011). Instead, radical doses of change can be expected to occur, connected with periods of incremental adjustment.

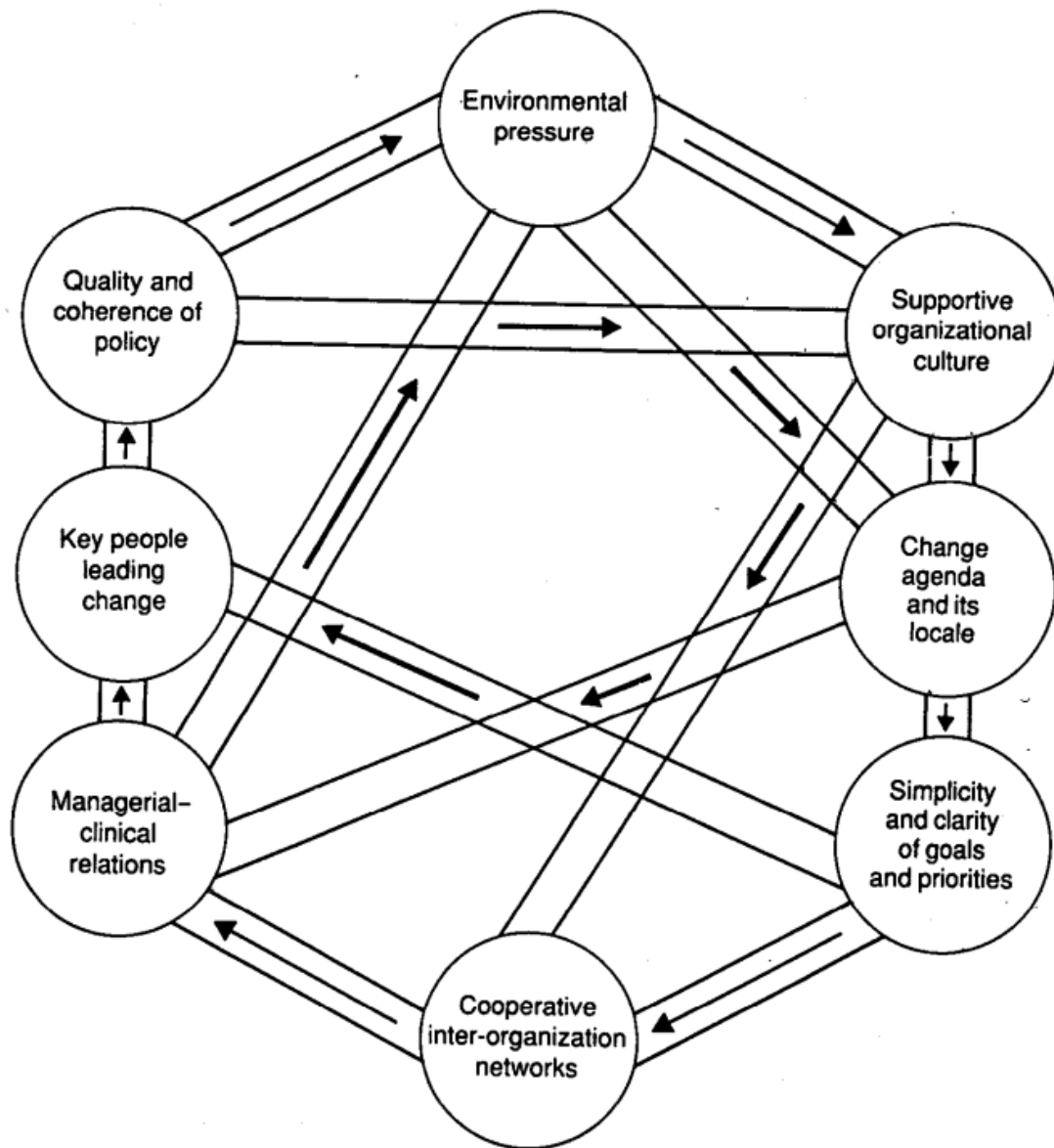


Fig. 3. 1. Receptivity context of change in large public organisations. Source: Pettigrew et al. (1992, p277).

The theoretical model of change receptivity in large public organisations generated by Pettigrew et al. (1992) was based on the interrelationships of eight factors representing a pattern of associations rather than a cause-and-effect path (Fig. 3. 1). The model was developed from the study of large organisations, such as the British National Health Service (NHS). The following factors were considered in the model of Pettigrew et al. (1992):

- Quality and coherence of company policy were found to be significant, particularly at lower and medium levels of management. It was believed that policy applicable to the whole organisation should be formed in a bottom-up approach, where employees participate and provide contributions. The participative formation of policy should eventually contribute to the organisational specification of strategy and goals, which

should be broad enough to accommodate the complexities of large public organisations.

- Availability of key people leading change was considered necessary. This requirement implied the execution of leadership for change in a participative manner, through team building and taking advantage of individual skills and assets. It was considered crucial to demonstrate a logical continuity and stability in the decisions for change. It was believed that the leaders' personalities were more important than their status. Leaders of change were expected to be able to resolve complex intertwined problems rather than tackling single great issues.
- Long-term organisational pressure from the business environment was considered to result in radical change. There was concern that external pressures to change may cause excessive time and money to be spent, collapse of morale to be manifested, and characterisation of managers as scapegoats of unsuccessful change efforts.
- Supportive organisational culture for change was considered paramount. Organisational culture, in this case was defined as the collection of *'deep-seated assumptions and values far below surface manifestations [...], officially espoused ideologies, or even patterns of behaviour.'* (Pettigrew et al., 1992, 281). The main requirement was the ability to change beliefs and adopting flexible ways to achieve a successful outcome. The use of leaders for change as role models was considered a pragmatic method. The minimisation of formal hierarchies and concentration on purpose-designed organisational structures that are based on skill, rather than status was considered significant. Risk-taking, openness to trials, understanding and projecting the organisational strengths, and promoting a sense of achievement were considered key cultural characteristics for change.
- Managerial - clinical relations was specific to the NHS, where that study was carried out. The clinical personnel (i.e. the medical related staff) was viewed as a group that had distinct needs and interests and was differentiated from management. The clinicians group was considered powerful enough to block change efforts, if a climate of trust, honesty, and effective communication were absent.
- Cooperative inter-organisational networks were considered synergies between the public organisations with associated agencies (e.g. the links between the NHS and the social services). Those networks may be promoting or creating barriers to change depending on the readiness or the adaptability of the associated organisation. The communication points between the organisations were found important, particularly those that were informal and purposeful.

- Simplicity and clarity of goals and priorities was considered key in facilitating change. Persistence and patience in reaching objectives over a long period was expected to eventually bring about change. Managerial skills for the reduction of complexity and conflict were required to contain problems during the transformation process.
- Change agenda and its locale refers to the assumption that change in large organisations should not be implemented in the same manner throughout. The main reason is that different sections of the organisation can exhibit operational and cultural particularities that can inhibit or accelerate change. A change in the power balance between managers and the trade unions can influence the pace of change.

One of the strengths in the above model is that it takes into account both the external pressures for change, and the internal characteristics of the organisation to achieve that change (Newton, 2000). The model can provide an understanding of the relationships between context, process, and outcomes and gives guidelines for the implementation of strategic decisions (Lau, 2002). The model suggests a meaningful interaction with the environment through synergies with other agencies, however it does not take into account national legislation that may lead to obstructions in such cooperation (North, 2000; Khan, 2003). A limitation of the model is its tendency to put practitioners and researchers on a predefined path to get to the required outcome (Hirschheim, 1992). The model was developed based on the health service in the U.K., which may not be entirely applicable to every large organisation in the world, with varying market characteristics and production and consumption processes (Levy et al., 2003).

The model creation of Pettigrew et al. (1992) follows a similar path to Mintzberg's (2005) theory building from a single case study, by following an inductive approach that explains observed phenomena. Explanation of such phenomena involves categorisations of factors and understanding of relationships between such factors, without the restriction to find causations between the factors (Mintzberg, 2005). The historical perspectives of qualitative research that were implemented in Pettigrew's model are in line with the research methodology for theory building in Burgelman (2011). The history of organisations is considered important in creating generalised theories from a small sample (Burgelman, 2011). The dynamic nature of Pettigrew's (1992) model (i.e. the complex interaction of factors rather than direct causation between them) has many similarities with the research practice in Eisenhardt and Graebner (2007). Generalised theory building can be valid by understanding the dynamics present in a sample (Eisenhardt, 1989; Eisenhardt and Graebner, 2007). Iqbal (2003) argued that the model of change receptivity developed by Pettigrew et al. (1992) puts

great emphasis on the context of change. However, it has a weak process orientation in practice, which means there is a need for an implementation methodology.

- **Adoption of new processes**

Luh (2000) elaborated on the context of CM by recognising that during the setup stage or the improvement stage of business processes, there is likely to be various types of organisational adopters. Luh (2000) categorised most of the potential process adopters as:

- **Innovators:** are venturers and experimenters who like experiencing the latest innovations. They are likely to be forgiving and pose fewer requirements than any other adopter types, but want the truth without any tricks. They can neglect bad documentation, slow performance and even missing functionality;
- **Early Adopters** are visionaries and can link an emerging system or process to a strategic opportunity. They do not necessarily rely on well-established references to make decisions and expect to get a major competitive advantage by being first to exploit new processes;
- **Late Majority:** are mostly followers and conservative characters, who are usually against discontinuous innovations. They believe more in tradition than in progress and they prefer to just stay on par with the rest of their colleagues. They are very sceptical and demanding towards new processes and require simplified processes to the point they just work.

Luh (2000) correlated the perceived value of business process output attributes with the adopter type (Table 3. 3). The type of adoption of BPM relies on the process output value that an internal or external customer perceives, which is analogous to the value of the process itself (Elizur, 1984).

Business Process Output Attributes	Adopter Types		
	Innovators	Early Adopters	Late Majority
Compatibility of the new process with the existing system	Low	Medium	High
Provision of Competitive Advantage	Medium	High	Low
Complexity of the new process	Low	Low	High
Risk associated with the new process	Low	Low	High
Usefulness of the new process	Low	Medium	Medium
Execution Cost and Time	Low	Low	High

Table 3. 3. How do adopters value innovative business process attributes? (adapted from Luh, 2000).

French (2009) recognised the importance of the types of adopters of new processes and suggested a set of important questions, adapted to BPM, that need to be self-answered by process owners to increase their self-consciousness:

- What process am I expected to deliver?
- Who are my existing and potential (internal or external) customers?
- What do my internal or external customers really need and value?
- What are the strengths, weaknesses, opportunities, and threats of my processes?
- What are my core capabilities and competencies?
- Do I have a competitive advantage to sustain my process?
- Are my processes aligned or contribute to the organisational vision?

- **Internal politics**

Cusick (2005) argued that there are often underlying dynamics within the organisation; in other words, organisational political forces from various stakeholders that have different interests. Each stakeholder's push to withhold their long acquired rights can hinder CM and create barriers in the effective management of business processes (Cusick, 2005). Feyzbakhsh (2008) reviewed the following obstacles to implementing change due to internal organisational politics:

- Innovators may limit themselves to recording their ideas and suggestions without presenting them further, because the management's reaction may be unsupportive or the

management gets all the credit. This can negatively influence improvements in the organisation;

- Management's inflexibility to changes can be evident in the case of more experienced and longer serving managers, who can either be used to relatively static organisational status, or are risk-averse;
- Lack of giving job authority to employees can happen when work is precisely set and employees are not entitled to any comment on the methods or setting task priorities;
- Lack of appreciation of team working and risk-taking;
- Giving innovation rewards with large delay after an innovative idea is adopted;
- Lack of innovative thinking time in employees' daily schedule;
- Centralisation: meaning that all decisions are only taking place at high management levels;
- Too many rules and lack of adequate information for the implementation of an idea, causing delays in appreciating the result;
- Mismatch between employees' allocated jobs and their capabilities, which can result in low job satisfaction;
- Not learning from past experiences, which can result in repeated mistakes and failures;
- Lack of a budget for implementing small, creative and innovative experimental plans;
- Not providing convincing reasons for rejecting ideas.

Morris et al. (2008) reviewed the following obstacles in implementing innovative change in organisations due to internal corporate characteristics:

- Rigid and oppressively controlling corporate systems and bureaucracies;
- Multiple-level hierarchical structure with top-down management, with restricted spans of control, and restricted communication channels;
- Myopic leadership vision and lack of commitment for innovative activity by senior leadership;
- Highly structured policies and procedures with long, complex approval cycles and documentation requirements;
- A cautious, short-term organisational culture that instils fear of failure and resistance to change.

• **Financing for Change**

Manimala (1989) discussed a practical financial reason why management (especially in large organisations, such as SOEs) may not be supportive of breakthrough, long-range changes. If management takes CM decisions, based on the traditional method of calculating

the Internal Rate of Return (IRR), then minor and small scale innovations fare better than major innovations. This is mainly because minor innovations tend to have small forecasted returns and very low risk, and the opposite applies for major innovations. IRR is calculated by dividing the forecasted returns by the forecasted risk; the risk, usually carries a larger weight and therefore brings the IRR value down for major breakthrough innovations (Carland, 2007). Using this traditional mathematical formula to calculate IRR can lead management to the conclusion that it is always better not to take chances (Mouzoulas, 2003).

Carland (2007) also argued that the bias towards low risk is perpetuated by the management evaluation system because managers usually progress in large organisations, based on the financial performance numbers they produce over time. Such financial Key Performance Indicators (KPIs) may have a direct effect on the selected objectives that are pursued (Fligstein, 1997). Managers are often evaluated and have personal gain in proportion to how well they have met or exceeded their financial targets every year (Kenny, 2006). If the target is met or slightly over-performed, that is fine and there may be a bonus involved for the manager's performance. If, for example, the manager has over-performed much more than the initial target, as a result of a major change, it is highly unlikely his/her financial reward will be analogous (Carland, 2007). In fact, the expectations of returns for the next evaluation will most likely be proportionally higher (Nash, 2007). Moreover, major innovations may take several years before they start generating returns; yet, the expenditure to fund the efforts has to be incurred beforehand (Johnson, 2005). This further reduces the IRR, if there is still not any return in the current year (Carland, 2007). For those reasons, management that is evaluated by strict traditional financial measures can be negatively biased towards major innovative ideas for change.

- **Culture for change**

Rosemann et al. (2004) emphasised that organisational and national cultures are critical success factors that affect the implementation of BPM. In that respect, culture can be linked to CM and BPM via the need to remove inhibitors, such as resistance to change and lack of process understanding (Brokke and Sinnl, 2011). Armistead and Machin (1998) claimed that there can be a cultural shift towards process orientation through the implementation of process performance measurements. Armistead and Machin (1998) researched the effect of implementing a new information system of service productivity assessment in the organisation. It was observed that the organisational culture became supportive to the system change, concluding that people's thinking can change through a structural change. Brokke and Sinnl (2011) argued that structural changes may require a corresponding change in the actions

of the entire workforce in an organisation, which can cause a change in values and the culture. Pritchard and Armistead (1999) argued that organisational culture change is one of the main benefits achieved through the implementation of BPM. According to Brokke and Sinnl (2011), continuous improvement, which is an integral concern in CM, may emerge as a cultural value, from employees' involvement in BPM.

According to Cawood & Bailey (2006), when the CEO of a large organisation was asked what the strongest organisational cultural factor for change is, he replied that a change oriented culture should do more than spark people's minds; it should also involve their hearts, because people do not care with their minds. Carland (2007) discussed how small firms can often create great breakthroughs originating from their human resources, despite lacking the vast physical resources of large organisations. One should not disregard that concepts such as organisation, business, and ventures are words devised to describe activities of individuals (Carland, 2007). From this perspective, a business could never decide to take any action, rather the people involved in this business would be the ones to make the decisions.

Prather and Gundry (1995) supported the idea that bureaucracy should be minimum and employee participation should be maximum, in order to create a culture of change in an organisation. Oliver (2009) suggested that an employee suggestion scheme can be very useful in this respect. The most significant areas for improvements should be first identified, access should be open to all employees, and provision of rapid feedback and personal gain (some type of benefit) to the contributors should be in place to keep them motivated (Hayton, 2005). The suggestion system should celebrate the employees' initiatives, creativity, and loyalty, as well as the value of the suggestion to the company, and offer some modest financial rewards, since large rewards were found to lead to small improvements (Prather and Gundry, 1995). Rule and Irwin (1988) suggested three cultural factors that can assist in such a transformational suggestion scheme:

- Generation of new ideas that are aligned with the organisational vision: this can be accomplished by both innovators and management simply by walking the talk;
- Rewarding the contributors: these can be financial as well as non-financial rewards when they reach their objectives (or exceed them);
- Providing leadership: management should be committed to supporting innovation and should understand the business need for this scheme.

According to Fry (1987) a culture for change accepts people who want to change things, spend money, think long term, ask embarrassing questions, challenge authority, and perhaps be disruptive. Truth and the chance to make something happen are often more important to process owners than the conventional motivations of money or power (Feyzbakhsh, 2008).

One of the main challenges in this type of culture during the transformational phase of the organisation is to make management occasionally accept a follower role (rather than the leader role), by using communication skills (Van Wert, 2004). Yorke and Garrick (2007) argued that engaging employees in improving their work creates new levels of communication and gives them ownership of improvements to the work. This type of empowerment is usually a highly desirable scheme for process owners, who want to actively be involved in CM (Oliver, 2009). Yorke and Garrick (2007) argued that employees most likely know more about their jobs than management does, due to continuous, repetitive and detailed involvement. Since individuals are usually experts in their work, they are logically the best source of ideas to improve their jobs (Martin, 2010). Oliver (2009) suggested that organisations need to move beyond this type of empowerment, based on the premise that when a leader empowers other employees, the latter are given the freedom to act, but the action is still very much in the hands of the employees. Thus, in reality, people can only be motivated by themselves, by being inspired by the nature of their work and their connection to a larger organisational cause (Cawood & Bailey, 2006).

- **Decision making mechanisms**

Disputes often arise when a decision is questioned for its correctness. One person may claim that he/she is certain that a decision is correct, while another person may respond that this is only an opinion or perception (Schauer, 1991). The latter stance may lead to the person refusing to accept the decision or course of action. According to Wooten (1999), knowledge is affected by sensation, perception, intuition, and thinking, which are factors that encourage disbelief about the correctness of decisions. One type of resolution to such disputes is to adopt an authoritarian stance (e.g. one person demands something to be done because he/she says it's the right thing, or because he/she says so). On the other hand, the decision can be implemented through demonstrating principles and concepts that prove its rightness (Luh, 2000). Process owners may facilitate change by choosing any of the above two approaches. There are cases where the process owner may demonstrate leadership by knowledge of a subject and demand something to be done without debate (Oliver, 2009). People trusting in the process owner's knowledge will most likely follow; however, this approach cannot be successfully repeated if the outcome of the decision proves the process owner wrong (Bennis, 2003). If a process owner attempts to get to a decision through widespread discussion, and that common decision fails to generate the required process outcome, the status of the process owner can still remain strong. This is mainly because decision participants will tend to

subconsciously accept that they contributed to the adoption of a course of action, even if it produced an undesirable outcome (Gotsill, 2007).

- **Work engagement**

Why does management try to keep the workforce engaged with change efforts? Work engagement can be a positive, fulfilling, work related state of mind that is characterised by vigour, dedication and absorption (Bakker et al. 2008). Dylag et al. (2013) studied the participation of employees as a manifestation of work engagement in public sector organisations and concluded that work engagement is positively linked to performance improvement and organisational change. Dylag et al. (2013) argued that management can often perceive some organisational values such as authority, obedience, loyalty, and sacrifice to be the most important ones in the organisation. On the other hand, employees can individually perceive values such as health, responsibility, independence, and creativity to be important for their work. Such a difference is viewed as a conflict between the official organisational values and individual values (Maslach et al., 2008). Increasing work engagement may lead to reduced conflict between organisational and individual values (Dylag et al., 2013). This is mainly because conflicting cultural values in an organisation can be related to barriers in change management and inefficient execution of business processes. Maslach et al. (2008) suggested that work engagement has the opposite effect of job burnout. Job burnout is a syndrome developed as a consequence of chronic job stress, primarily characterised by increased exhaustion, cynicism towards one's job and organisation, and a sense of reduced work effectiveness (Maslach et al., 2008). Job burnout is a frequent phenomenon in the Greek Public Sector and the Greek SOEs (Rammata, 2011; Maroudas, 2009).

- **Value conflicts avoidance**

According to Dylag et al. (2013), very often, there can be a discrepancy between the highly esteemed organisational values (declared to be important by management) and the individual employees' values, which can lead to conflict during business operation. Organisational value conflict on matters of employees' well-being, job satisfaction, health and performance should be avoided in order to achieve work engagement and smooth implementation of business processes (Ostroff, 2007). Retrospectively, BPM can clarify operational priorities and reduce value conflicts, resulting in increased job satisfaction and work engagement (Ostroff, 2007). Maslach and Leiter (1997) suggested that effective change requires the best match (or fit) between the person and the job, which increases the likelihood

of work engagement. Avoidance of organisational value conflicts is one of the key change factors, while other factors are: workload, control, reward, sense of community, and fairness (Maslach and Leiter, 1997). Dylag et al. (2013) found that both individual and organisational values that were most highly esteemed were: ambition, wealth, self-discipline and success. The largest discrepancy between individual and organisational values was found in: having inner harmony, having a meaning in life and enjoying life (Dylag et al. 2013).

- **Sense making as a reason for change**

Glynn (1993) argued that sense making can be a major reason behind acceptance of change in large organisations. Glynn (1993) described sense making, simply as an approach for dealing with ambiguity, and provided the following aspects of sense making:

- Identity: realise who one is and how and what one thinks;
- Retrospect: looking back to what was said to learn what one thinks;
- Social: what one says is influenced by their environment;
- Plausibility: the need to know enough about something in order to act upon it.

According to Roberts (2004) employees are more likely to support a suggestion for business process improvement, when this suggestion makes sense to them. For that reason, it is important to understand, build and refine business process models, in a way that they make sense to the team members responsible for implementing change (Roberts, 2004).

Beckford (1993) believed that employees can be major influencers in BPM efforts, and they should reflect on what it is that they do, and then what it is that they wish to do. Beckford (1993) argued that answers to such questions can provide meaningfulness of the functions undertaken by employees, rather than the functions themselves. Valid examples of answers to those questions could be: making money (which is a motivator), or developing knowledge (which is a high value process). Objectives for change should be set in a way that they are closely related to expectations, beliefs, values and norms of the individuals involved in the process (Beckford, 1993).

Working without a sense of personal meaning, or doing something that does not make sense to the individual can be very alienating (Singh, 2005). Alienation can be exacerbated when the organisation does not create an environment, which promotes autonomy, flexibility, taking initiatives, openness for feedback, and innovation (Singh, 2005). When a meaningful process-centric working environment is missing, deviations in working patterns among employees are often observed in organisations (Singh, 2005). BPM comprises attributes such as planned work and discipline and avoidance of meaningless chaos (Panagiotou, 2013). Roberts (2004) noted that sense making can help employees understand what needs to change

and organise themselves in order to implement the change, with minimum intervention from management.

- **Well-being and trust**

Helliwell and Huang (2011) investigated the effect of organisational well-being and trust on the effectiveness of CM and found that working in a place with high trust in management, created satisfaction, similar to a 30% increase in income. The sense of trust in management is one of the main requirements for any CM effort to succeed, because employees highly value trust, as a measure of well-being at work (Helliwell and Huang, 2011). In the same paper, the sense of well-being at work was approached by investigating the degree to which organisations promoted employees' talents and special capabilities.

Respondents were asked whether their job:

- Allowed them to take decisions on their own;
- Required a high level of skill;
- Gave them the opportunity to experiment with new ideas;
- Had a variety of tasks;
- Provided enough time to get the job done;
- Was tolerable to mistakes if learning was a result;
- Was free of conflicting demands.

Helliwell and Huang (2011) argued that more positive responses to the above questions were associated with high levels of job satisfaction, and lower resistance to change.

Helliwell (2003) argued that one of the main reasons people will support a long lasting change is to either maintain or increase their well-being. Helliwell (2003) posited that particularly for SOEs, people with the highest well-being are those who are found in situations, where mutual trust is high, corruption is low and social and political institutions are effective. Helliwell and Huang (2011) distinguished between the concept of job satisfaction from the concept of happiness at work: job satisfaction is a long term overall feeling, while happiness at work is more related to ephemeral events. Helliwell and Huang (2011) claimed that workers who were members of a trade union were less likely to place high levels of trust in management than non-union workers. Putnam and Helliwell (2004) suggested that employees with the potential for leading CM were unlikely to join trade unions due to their level of trust in management and their will to pursue changes without being restricted by trade unions.

Kouzes and Posner (2012) argued that when employees work in a trustworthy organisational climate, they can have plausible reasons to embrace CM improvements. Trust

is at the heart of fostering collaboration and constructive human relationships, both inside and outside of the organisation (Kouzes and Posner, 2012). Oliver (2009) emphasised the importance of trust between management and the workforce and argued that trust within an organisation is a crucial centre point for successful change efforts. A trustworthy relationship with management can have an immediate and positive effect on the psychology of employees, resulting in reduced resistance to change (Cawood & Bailey, 2006). When employees are unable to trust management or their colleagues, they fail to become leaders and demonstrate high levels of resistance to change (Yorke, 2007). Usually, those who cannot trust and cannot depend on the words and work of others, either end up doing all the work themselves, or supervise the work so closely that they become over-controlling (Bennis, 2003). This can lead to a vicious circle, since demonstrating lack of trust in others can result in others' lack of trust in them, which can be a major inhibitor in change initiatives (Northouse, 2012).

3.3.2 Content of Change

This sub-section reviews some of the major BPM factors that can have an impact on the implementation of CM in SOEs, from the perspective of the content of organisational change. This refers to the particular areas of the organisation where its operation needs to be transformed, and whether the nature of change is gradual or fast, or based on technological change (Pettigrew et al., 1989). In simple terms, this refers to what needs to change.

- **Change in the Greek SOEs**

According to Tsoukas (2012), change in Greek SOEs could involve three levels of impact:

- The originators of change aim to deliver a new way of dealing with existing processes in order to avoid inefficiencies in the current operations;
- Adoption of a set of new values, presumably aligned with the organisational environment;
- Actual change of established ways of work, and embedding the new processes in the organisation so that they become the new status of operation.

Tsoukas and Papoulias (2005) investigated the relationship between CM and BPM in the Greek state owned Electricity Company. They asserted that the Greek state has considerable influence over most aspects of SOEs' economic affairs. CM in Greek public corporations is crucially dependent on the support of key outside stakeholders, the most

important of which is the government (Tsoukas and Papoulias, 2005). According to Argyris (1990) and Salteris (2013), change in Greek SOEs requires the transformation of the very identity of the organisation, which does not only refer to the internal business processes, but also to the form of ownership and the constitutive rules that have historically defined Greek SOEs. This type of change can be part of a broader political project to modernise the country's institutions (Tsotsoros, 1995; Paschalidis, 2000). In this case, CM can be viewed as a process itself, with the output being the transformation of SOEs into conventional firms that learn to compete in the market place (Maroudas, 2009). According to Mouzoulas (2003), the transformed SOE can be subject to independent scrutiny from the outside (by markets, regulatory authorities and/or civil society associations). Thus, the business environment of SOEs can push the state to implement reforms, which in turn sets business and operational targets for SOEs. Alternatively, the market can trigger the need for change in SOEs directly (Adam, 2005). SOEs can then be organised and managed to achieve particular objectives, which serve as the metric for evaluating the effectiveness of the organisation and its management (Maroudas, 2009). BPM is an essential component of the change process which if effectively implemented will help organisations to achieve the required results (Tsoukas and Papoulias, 2005).

According to Lawrence and Vlachoutsicos (1990), and Maroudas (2009) some of the most common barriers to change in a Greek SOE originate from cultural values and beliefs such as:

- A job is a job for life;
- Promotions are based on seniority and party political affiliations;
- The trade union has great strength and is one of the sources of authority in the company;
- As long as one follows the pre-defined procedures, there is no reason for any concern;
- Competition does not matter, as long as the state backs the organisation financially, irrespective of performance.

According to Panagiotou (2013), most Greek SOEs have introduced a CM programme that aimed to change old organisational procedures into modern business processes. When such processes are generated from procedures, there is a tendency to approach the change from a mere technical perspective of redesigning compartmentalised chunks of work (Panagiotou, 2013). However, for change to be effective, the cultural context in which the change is taking place must be understood, so that processes can be perceived as an integral part of the organisation and its daily operation (Paschalidis, 2000). According to Tsoukas and Chia (2002), an important link between CM and BPM for SOEs is that the transformed organisations are expected to have both business and operational targets. These companies are

also expected to predict business results and to be accountable for their operations and strategy in order to produce such results (Papathanasiou, 1985; Berry et al. 2005). Bort (2005) used the metaphor of traveling methods, to illustrate the value of having such targets, and be bound by achieving results. One way of traveling is selecting a destination and making travel plans to get there; the other way is to focus on the journey and wander with no real endpoint in mind (Bort, 2005).

- **Top management commitment**

Al-Mudimigh (2007) highlighted the importance of having top management directly involved in the planning and implementation of process changes in the organisation. Top management support should not end after the initiation of process change programmes, but should extend to the full implementation (Buchanan, 2007). Zampetakis (2007) noted the importance of avoiding any confusion between top management commitment and micromanaging process changes. This is because the latter can result in the demoralisation of the change participants, especially if they do not have scope for adopting an innovative intervention strategy. Papoulias (2002) claimed that top management support for process improvements should be a given. However, excessive management intervention in process improvements that gives little or no freedom to employees to take action has rarely been successful in Greek organisations (Papoulias, 2002).

Kuratko et al. (1993) suggested that the following questions need positive answers from top management for a successful transition to BPM:

- Has the organisation effective ways of assessing the resources needed for new BPM ideas?
- Are managers prepared to allow experimentation with new business processes?
- Does the organisation tolerate mistakes and encourage risk taking?
- Are the employees more concerned with new ideas or with defending their turf?
- Is it easy to form autonomous project teams within the corporate environment?

Johnson (2005) argued that BPM has a higher chance of producing successful change, when the redesigned or newly created processes can generate an outcome that is aligned with the top management vision. This is mainly because intermediate management levels will find it more difficult to create barriers to change efforts.

- **Empowerment**

Zabjek et al. (2009) argued that organisations should treat BPM as a mechanism for stimulating business change. They explained that organisations do not change processes. It is

the people that work there that can only realise the changes. According to Sia (2008) initiatives for making changes to business processes may originate from the top management, while process ownership can be allocated to specific individuals in the organisation who subsequently should be responsible for maintaining and improving the processes they own. According to Boyle (1995), after identifying process owners, organisations should give them adequate power to handle the processes they own. A process owner should ideally have ultimate authority and responsibility over process operations, including making process improvements (Oliver, 2009). According to Dvir (2002), process owners should be well acquainted with their processes and occupy an adequately high position in the company, because these individuals should have the power to implement their processes through the various organisational structural boundaries.

Alvesson and Willmott (2002) argued that a common characteristic between BPM and CM is empowerment, particularly through giving employees clear roles at work, within the boundaries of which, they can exercise initiative and discretion. Alvesson and Willmott (2002) termed this rather constrained notion of empowerment as micro-emancipation, while Clement (1994) termed it as functional empowerment. This notion of empowerment differs from completely democratic empowerment, since employees have greater job discretion, but only within a boundary system or the pragmatic operational workspace of their roles, to get the work done (Simons, 1995).

Nah and Lau (2001) argued that a harmonious coexistence of BPM and CM can result in empowered process owners with enriched roles, who can eliminate duplication of activities and manual bureaucratic tasks. Elimination of duplication of work may result in some employee redundancies, since the need for keeping some of the previous roles can potentially disappear. Ould (1995) claimed that empowered process improvement teams need to have loosely coupled roles, in order to facilitate change in organisations, through an increased number of interactions. Process participants may either be individuals, or even whole departments (Havey, 2005). The concept of loosely coupled roles between process participants does not mean that the inputs/outputs from one participant to the next should not be well defined. Ould's (1995) suggestion was about providing a certain degree of freedom to process actors to suggest/implement process improvements.

Kuratko et al. (1993) considered some pre-requisites that should be in place to empower process owners in BPM efforts within the organisation:

- Presence of explicit goals: the goals need to be mutually agreed between management and employees so that milestones can be reached;

- System of feedback: this is necessary for creative employees to check if there is acceptance of the innovations;
- Emphasis on individual responsibility: confidence, trust and accountability are important elements of success;
- Rewards based upon results: this encourages employees to take risk and to thrive for achievement.

- **Process mapping**

According to Bae and Kim (2007), two factors that connect business processes and CM are data flow (i.e. documents / forms circulated for processes), and control flow (i.e. the execution of activities and tasks). Data flow is mostly associated with document management (i.e. circulating, tracking and storing documents), and depending on the recipients, the path of documents/forms may vary as the related processes change and vice versa (Tsichritzis, 1982). According to Yao et al. (1984), changes in document management may either be operational (e.g. selective completion of certain sections of a form), or structural (e.g. changing fields, and changing the people this form passes through). As far as control flow is concerned, the BPM system usually encompasses the concept of workflow management, to automate and manage business processes (Grig et al. 2004). Moreover, BPM influences how resources are managed and this has an effect on control flow (Tsichritzis, 1982). A BPM system that systematically manages the resources used in the control flow, as part of organisational CM, has the potential to run processes automatically (Smith and Fingar, 2006).

According to Hammer and Champy (2003), as the responsibilities of the process owners are spread within the boundaries of the organisation, process identification and documentation (particularly of core business processes) is essential. Just as companies have organisational charts, they should also have process maps with defined business processes to facilitate the understanding and sharing of the workflow (Smith and Fingar, 2003). A graphical representation of business processes (e.g. in the form of a flowchart) can help visualise and change the processes when required; there can even be a comparison of the process status before and after the change, without necessarily having to carry out the change (Harmon, 2007). Harmon (2007) supported the idea that CM can be assisted by the use of business process maps to graphically represent process activities and discipline people's thinking, which is a key element in improving business processes.

McCormack and Rauseo (2005) studied the influence of process mapping on both CM and BPM. They suggested that in most cases, business processes can be invisible within organisations, until the processes are mapped. According to Senge (2006), process mapping

can render business processes visible through the development and acceptance of mental models that provide an understanding of the way things are done. One of the limitations of mental models is that they are often subjective, according to each person's understanding; so, to build shared mental models, individuals must come together, communicate and discuss their views, and come to a common understanding of the model (Darnton, 2012).

- **BPM as a CM project**

Box and Platts (2005) developed a project alignment model that envisaged the implementation of BPM as a CM project; this model was based on business environment, leadership, and management. In order to facilitate change, the corporate strategy should be simple and comprehensible, and should motivate people to help implement BPM, and contribute to the company's mission (Carnall, 2007). Widespread operational alignment with the corporate strategy can assist CM project alignment, because CM project team members will be able to see how their activities contribute to the organisational vision (Collins and Porras, 2005). A culture of change requires process oriented employees, mutual trust with management, tolerance of making mistakes, and organisational learning (Box and Platts, 2005).

Strong leadership vision and purpose are essential to drive the CM project effort and implement BPM, because purpose is people's reason of being, serving for a direction and a constant that people can refer to over time (Box and Platts, 2005). A strong process identity (e.g. a CM project launch event) makes it easier for people to define and connect with the purpose and to have a sense of belonging that leads to increased commitment (Molden and Symes, 1999). As Obeng (1995) noted, people watch closely what a leader does and use this as a guide to what the leader really means. For that reason, leaders should demonstrate commitment to the end goal. Box and Platts (2005) listed some leadership qualities that can guide the CM project team to implement BPM as follows:

- Showing passion;
- Being visible;
- Motivating and showing respect for people;
- Displaying and permitting emotions;
- Trusting people.

The third element in the alignment model of Box and Platts (2005) was effective management that allows the CM project team to implement BPM in the organisation. Some of the main themes of this element are:

- Aligning project goals with company strategy (e.g. with clear communication);

- Understanding stakeholder expectations;
- Project management techniques should be applied so that everyone knows what to do and when to do it;
- Definition of individual roles and accountabilities;
- Creation of a project team that has the required mix of skills to perform;
- Readiness for negotiations at any stage;
- Building trust and honesty with the project team.

- **Internal marketing of processes for CM**

Lings and Greenley (2005) claimed that the effective establishment of internal marketing techniques is a follow-up status of a well specified internal marketplace in the organisation, with the aim to stimulate change. The concept of an internal marketplace of processes was reviewed in the previous chapter (see 2.4.2). This was the point where the influence of AGP on CM was reviewed from the perspective of the content of change in the model of Pettigrew et al. (1989). The internal marketplace is complementary and similar to the concept of an external marketplace of services, and falls under the broader notion of marketing taking place within the organisational boundaries (Gounaris, 2008). This means that process owners sell their services to the organisation that employs them, instead of typically executing activities assigned to them by management.

Raqif and Ahmed (2000, 454) linked BPM with CM through a definition of internal marketing as [...] *'a planned effort, using marketing as an approach to the worker, that permits organisational resistance to change to be overcome, and is able to align, motivate, inter-functionally coordinate and integrate employees towards the effective implementation of functional and corporate strategies, so as to achieve the satisfaction of the external customer through a process that will make possible satisfied, motivated and customer oriented employees'*. The key to this definition is the marketing approach, which puts the employees in the position of marketing a suggested change to management (i.e. convincing management about the value of a change to the organisation). This marketing approach can encourage employees' participation in the change and lead to the success of the organisation in the external market (Martinez, 2007; Brady et al, 2006; Chu-Mei, 2005). According to Tortosa (2009) internal marketing is based on social exchange relationships among employees, which have to be trustworthy and convey a feeling of common purpose among the individuals.

Winter (1985) suggested that internal marketing can be used to educate and motivate staff towards the achievement of corporate strategy objectives, particularly in cases where organisations need to change to be able to compete in external markets. Piercy and Morgan

(1991) argued that the same techniques used for the external marketplace (such as promotion, advertising, and monetary incentives) should be used to market change within the company. Jaworsky and Kohli (1993) claimed that an internal marketing approach must cross all departments in the organisation in order to motivate employees to participate in changes. Lings (1999) focused on the concept of internal customers and suggested that the target audience of internal marketing should be both the employees as well as the top management of the organisation, particularly when CM initiatives are in place.

The adoption of internal marketing can result in high service quality, employee job satisfaction through motivation, increased customer orientation and organisational change (Keleman and Pappasolomou-Doukakis, 2004; Finney and Scherrebeck-Hansen, 2010). Thomson (1991) suggested that CM efforts can be fruitful when employees are viewed as valued internal customers, as well as process executors from the perspective of internal marketing. Varey and Lewis (1999) argued that processes and employment conditions should be viewed as products to be marketed, and the management should think like a marketer when dealing with people that are expected to implement change. This concept assumes that the employer is both the buyer and the consumer of processes and employment relationships. Segmentation and promotion of business processes should take place internally, with the aim to persuade purchasers of the value of process outputs (Keleman, 2004; Panagiotou & Evaggelopoulos, 2013). This provides employees with the challenge and freedom to change their requirements and understand the position of their employer (internal customer) as they respond to the internal marketplace demand (Maitland, 1990).

Varey and Lewis (1999) argued that internal marketing of processes is closely associated with CM, by viewing internal marketing results as potential changes that can be generated from all the employees in the organisation. Such changes can render the organisation flexible and adaptable to react quickly to changes in the business environment. Tikkanen (1996) linked organisational change with the concept of internal marketing of processes by viewing change as having both a demand and supply side:

- The demand side of change can be seen as an internal marketing process of legitimating change and creating a demand for it in the organisation;
- The supply side of change can then provide the organisational stakeholders with the necessary conditions, in order to cope with the change. These conditions may be a vision, clear objectives, practical means and resources, and continuing support.

Tikkanen (1996) categorised the supply and demand sides of change at organisational micro and macro levels:

- The micro level is concerned with change from the individuals' perspective;

- The macro level holistically regards the organisation within a business context.

The mechanism of supply and demand of change starts with the demand side of change that requires process improvements (Tikkanen, 1996). These improvements are achieved within the internal organisational marketplace. The process improvements have a certain perceived value to the organisation, typically perceived and specified by management. The process owners can negotiate the value of process improvements and offer to deliver the outcome of those improvements. The negotiation of the process value refers to the internal marketing of the process. The delivery of the process improvement refers to the supply side of change. The value of process improvement can vary with time and be subject to changes in the business environment (Tikkanen, 1996). This means that some new processes may need to be generated and some others to become obsolete, in order to meet the demand side of change.

3.3.3 Process of Change

This sub-section reviews some of the major BPM factors that can have an impact on the implementation of CM in SOEs, from the perspective of the process of organisational change. This recognises historical and continuing struggles for power accumulation by individuals and groups (Pettigrew et al., 1989). In short, this refers to how the change should be implemented.

- **Radical Change Method in British Aerospace**

Iqbal (2003) studied the validity of the theoretical framework of Pettigrew et al. (1989) in a British aerospace organisation, and he developed the following method, particularly for radical change implementation:

- Evaluation of the current process is initially required, in order to determine the process' scope and distinguish it from other processes. The people responsible for the change need to map the current process, identify and put together a suitable team for the change, and ensure there is management commitment for the change;
- Envisioning is the second phase, which initially requires the understanding of any issues identified during the evaluation stage. The objectives of the transformed process are established, the appropriate people and systems are specified, and the cost, as well as the expected benefits are evaluated;
- Empowerment of stakeholders takes place, in order to implement the change, after envisioning is completed. A pilot implementation of change can provide a test of the

feasibility of the suggested change on a small scale, with the aim to receive quick feedback. Full scale implementation can follow by executing the actions decided in the envisioning stage, making sure the specified people and systems are actually adequate as was anticipated;

- Pursuit of excellence in change implementation refers to continuous performance improvement of process performance. Collective feedback of the process effectiveness is required, in order to compare the actual state of the output with the required outcome defined in the envisioning stage. Then the loop is closed by going back to the evaluation stage.

- **Change agents**

Philips (2002) posited that change agents can play a major role in the implementation of BPM and affect the CM programme of organisations. Change agents are the people responsible for directing, organising and facilitating change in organisations (Burnes, 2009). Change agents can alter the status quo in a system and cause others to re-learn how to perform their roles (Phillips, 2002). Akin and Palmer (2000) metaphorically approached the categorisation of such individuals as: shamans, naturalists and priests. The shaman, as a change agent, relies on personal charm and charisma to influence decisions; the shaman also generates excitement and becomes the centre of attention, expressing self-confidence that results in belief (Akin and Palmer, 2000). The naturalist is mostly impersonal, practical, factual, relying on scientific problem solving, and values effectiveness rather than aesthetics (Akin and Palmer, 2000). The priest usually brings knowledge from outside of the organisation, by representing a higher power, celebrating and interpreting sacred visions (Akin and Palmer, 2000). Burnes (2009) conceptualised change agents as the people responsible for directing, organising and facilitating change in organisations.

Cripe (1993) recommended that employees that act as change agents for process improvement should think and communicate with a vocabulary that is familiar to their internal customers. This does not mean that they should not introduce new terms. Nevertheless, change agents will experience more positive results when they simplify principles and eliminate the jargon from their speech, because busy executives as well as process owners prefer their communications concise and to the point (Cripe, 1993). Gotsill and Natchez (2007) suggested the following guidelines for those that take the role of change agents in BPM:

- Discussing process improvement with stakeholders and end users at all organisational levels;

- Having a clear definition of successful improvement and how it will be measured;
- Preparing a cost and time baseline and communicating its relation to the objectives;
- Creating an implementation plan, this usually needs revision after launching;
- Arranging for training delivery, as needed, to support objectives.

Change agents should concentrate on their strengths and do what they enjoy doing, and keep doing those things as often as possible with consistent excellence (Ershad, 2012). However, according to Fattal (2003), change agents should be self-conscious about their weaknesses, because nobody can be all things to all people, all of the time. Change agents may often neglect their weaknesses, because they find no use for them; team formation for change is therefore essential, because the weaknesses of one individual can be complemented by the strengths of another (Luh, 2000).

- **Business innovation process**

Kovacev (2008) argued that organisations can enhance their ability to implement change by adopting a business innovation process, via the generation of ideas for improvement. Kovacev (2008) suggested the following steps to achieve this:

- I. Formation of an initial team to discuss a business proposal, based on the new ideas;
- II. Internal and external customers have to be identified;
- III. Further development of the new business concept by focusing on the value proposition (i.e. what the customers will gain from the change) and how the expected resulting advantage can be sustainable;
- IV. Assignment of mentors and validation of the concept by the company directors;
- V. Proofing of the concept (e.g. demonstrations or small scale deployment);
- VI. Finally, the plan (or process) has to be refined for full scale deployment.

- **Team working for BPM**

Cusick (2005) researched BPM in a situation, whereby a CM team collectively diagnosed process problems, shared innovative ways of solving them, and spread the intervention through agreed actions to their local work units. The team in Cusick's (2005) research provided recommendations to modify policies, documentation and processes across a number of departments, so that the change could be institutionalised. Furthermore, the same team put in place monitoring and adjustment strategies to follow up implementation and ensure adherence, with particular attention to structure (i.e. coordination and task processes)

and technology (i.e. the way work was processed and methods used). The main result was behavioural shift among employees and the suggested processes became everyday routine.

- **Charismatic and transformational leadership for change**

Lipp (1999) defined charisma of a leader as the ability to convince others, to share and support his/her vision and to passionately promote it. Lipp (1999) described charismatic leaders, as those who can reduce complex ideas into understandable terms, are optimistic, connect and inspire others, are able to see the perspective of others, strongly encourage others to succeed, and address emotional issues while communicating their values and ideas.

According to Oliver (2009), these characteristics assist the leader to gain the trust of his/her followers in an organisation. These conditions serve as a sound foundation of behaviour to build a strong relationship between the leader and the follower (Yorke, 2007).

Transformational leaders, on the other hand, place emphasis on intellectual stimulation and focus on the personal development of the employees (Dvir et al. 2002). This type of leader expects individuals to perform beyond expectations and to be empowered to initiate change.

Northouse (2004) argued that transformational leaders have a better capability to introduce change in large organisations such as SOEs, in contrast to charismatic leaders that can be more effective in smaller companies. This is mainly because in large organisations small and continuous/gradual improvement is much more likely to be acceptable and more compatible with transformational leaders. Some of the roles of the transformational leader can be inspirator, change agent, and/or visionary. The main personality trait for change is flexibility (Lessem, 1988). The transformational leadership approach to change was suggested by Kotter (1995) through eight steps as follows:

- I. Establishing a sense of urgency;
- II. Forming a powerful guiding coalition;
- III. Creating a vision;
- IV. Communicating the vision;
- V. Empowering others to act on the vision by removing obstacles to change, changing systems or structures that undermine the vision, encouraging risk taking;
- VI. Planning for and creating short-term wins by planning, creating visible improvements and recognising/rewarding the employees involved in the improvements;
- VII. Consolidating improvements and producing more change by using increased credibility to change systems, structures, and policies that do not fit the vision and by developing employees who can implement the vision, as well as by renewing the process with input from change agents;

VIII. Institutionalising the new approaches by rendering them formal parts of the organisation.

According to Bennis and Nanus (2003), transformational leaders lead by pulling rather than by pushing for ideas, by inspiring rather than ordering, by creating achievable expectations and rewarding progress toward them rather than by manipulating. This type of leadership for change enables people to use their own initiative and experiences and generate new ideas (Bennis and Nanus, 2003). Phillips (2002) claimed that the transformational leader is the most likely individual to act as a change agent. Schermerhorn (2008) posited that management should realise that one of the strongest competitive advantages is to establish a culture, where employees are encouraged to act as transformational leaders, and create avenues for employees to share their ideas for developing new processes, change and workplace improvements.

Kawasaki (2006) compiled a list of guidelines that should be followed by large organisations (such as SOEs) to implement CM initiatives via BPM:

- Allowing for new activities, ideas, and innovative processes to be funded by existing cash cows;
- Trying extreme ideas that sometimes appear to lead to the opposite outcome from the tried and unsuccessful methods;
- Finding people that have leadership qualities and a passion with certain aspects of the work, regardless their official qualifications or usually assigned duties;
- Temporarily removing innovative employees from their usual daily activities to give them the opportunity to think creatively, take a step back and visualise what needs to change;
- Putting the company first and doing what's right for the company should be the duty of all employees;
- Following random or conscious discovery of innovative ways of improvement, it is highly advisable to be in a stealth mode, while executing trials and fine tunings of newly changed processes, in order to avoid stoppage from risk-averse management;
- Collecting and sharing data, which will prove that change has eventually a positive effect;
- Dismantling the innovation team after the full launch of the produced changes and getting the team members to move back to their mainstream roles; unless the change involves giving them new roles.

3.4 Summary

Implementing BPM in Greek SOEs can contribute to organisational change. The ability of management to use BPM as a vehicle of change may be facilitated or constrained by the influence of dominant cultural elements, which have roots from Ancient Greek times. Some of those cultural elements refer to strong questioning of imposed changes, change adoption if it leads to happiness, a strong entrepreneurial spirit, and valuing ethical conduct at work (Doukas, 2005; Vakola, 2005; Rammata, 2011).

Some of the main reasons for implementing CM in SOEs are listed in Table 3. 4.

Factor	Comment
Complex and demanding business environment	Organisations have to adapt by continuously initiating changes in order to remain competitive and profitable (Carnall, 2007)
Operational improvements	Implementing new technologies, downsizing, restructuring, outsourcing, and when implementing BPM (Dawson, 2003)
Need to change vision and mission	Strategy, work, people, and formal and informal processes and structures may need to be realigned (Tushman, 1989)

Table 3. 4. Reasons for implementing CM in SOEs

One of the most recent efforts to reform Greek SOEs has included the implementation of Business Process Management (Greek Law 3429, Papoulias, 2005). CM in Greek SOEs has been approached in this chapter as an umbrella concept that can be actualised through BPM, mainly due to the external business environment and political pressures (Pettigrew et al., 1989; Tinnila, 1995; Stoddard et al., 1996; Dawson, 2001; Ho et al., 2004; Kettinger and Grover, 2005; Rub and Issa, 2012; Panagiotou, 2013).

The main differences between a business process compared to a general piece of work, such as a procedure are the following:

- There is an input and output to a process (Davenport, 1993);
- The process output is received by an internal or external customer and needs to have value to them (Hammer and Champy, 1993; Gunasekaran and Kobu, 2002; Al-Mudimigh, 2007);

- The process can be cross-functional and cross organisational boundaries (Hammer and Champy, 1993; Smith and Fingar, 2006; Panagiotou, 2013).

Often, business processes can be divided into activities and subsequently into tasks, each with similar characteristics, as listed above (van der Aalst, 1995; Orman, 1995; Darnton, 1997; Harmon, 2007; Panagiotou, 2013). The management of business processes typically needs to go through three distinctive phases: (a) modelling (see 3.3.5); (b) analysis (see 3.3.6); and (c) optimisation (see 3.3.7).

The impact of BPM on CM was reviewed in section four, through the application of the theoretical model created by Pettigrew et al. (1989) for analysing change in large organisations and SOEs. This model categorises change under the context (why) of change, content (what) of change, and process (how) of change. The findings of that categorisation are listed in the following three tables:

Factor	Comment
Receptivity of change	Adoption and acceptance of change can be a result of the interrelation of external business environment pressures to change, cultural influences, internal and external cooperation, understanding of goals, relationship between management and staff, leadership for change, and the coherence of the change policy (Pettigrew et al., 1992)
Adoption of new processes	During the setup stage or the improvement stage of business processes, different types of adopters, such as innovators, early adopters, or late majority can be encountered, with varying degree of reaction to the suggested processes (Luh, 2000)
Internal politics	Lack of appreciation for those who lead change, bureaucracy, high rate of new ideas rejection, and protecting long acquired rights can hinder change (Feyzbakhsh, 2008)
Financing for change	Traditional accounting methods of rating change risk versus benefit can favour minor and small scale innovations rather than major changes (Manimala, 1989; Carland, 2007)
Culture for change	Elements such as process performance measurement, emotional attachment to the organisation, bureaucracy bypass, and employee participation schemes can be influenced by BPM and support change (Rule and Irwin, 1988; Armistead and Machin, 1998; Cawood & Bailey, 2006; Oliver, 2009)
Decision making mechanisms	When decisions are made with the participation of the employees, process owners can facilitate change and maintain respect among employees even if a decision for change does not bring the desired outcome (Luh, 2000; Bennis, 2003)
Work engagement	Participation of employees is closely associated with the concept of work engagement, which in turn is positively linked to performance improvement and CM; work engagement and conflict between organisational and individual values have a negative relationship (Dylag et al., 2013)
Value conflicts avoidance	BPM can clarify operational priorities and reduce value conflicts, resulting in increased job satisfaction and work engagement (Ostroff, 2007)
Sense making	This can be a major reason behind acceptance of change and an approach for dealing with ambiguity (Glynn, 1993)
Well-being and trust	Working in organisations with high trust in management can create satisfaction, similar to a considerable increase in income; such satisfaction can reduce resistance to change (Helliwell and Huang, 2011)

Table 3. 5. Factors that originate from BPM and have an impact on the context (why) of change in large organisations (see section 3.3.1), derived from the model of Pettigrew et al. (1989).

Factor	Comment
Change originators	Those individuals need to deliver a new way of dealing with existing processes in order to avoid inefficiencies in the current operations (Tsoukas, 2012)
New values and new identity	The new values need to be aligned with the organisational environment and the new identity of the organisation should refer to business processes and the form of ownership and the constitutive rules (Argyris, 1990; Tsoukas, 2012; Salteris, 2013)
Change of established ways of work	The new processes need to be embedded in the organisation, so that they become the new status of operation and they should serve strategic and operational targets (Tsoukas and Chia, 2002; Tsoukas, 2012)
Top management commitment	Top management should be directly involved in the planning and full implementation of process changes, but this should not be confused with micro-management (Al-Mudimigh, 2007; Buchanan, 2007; Zampetakis, 2007)
Empowerment	Process owners should have the power and be responsible for maintaining and improving the processes they own; employees should have clear roles at work, within the boundaries of which, they can exercise initiatives and discretion (Boyle, 1995; Alvesson and Willmott, 2002)
Process mapping	The old standard operating procedures need to be replaced by processes that are properly mapped, preferably in a graphical format (Tenner and DeToro, 1997; McCormack and Rauseo, 2005)
BPM as a CM project	BPM can be a CM project that requires strong leadership, vision and purpose, alignment of business processes with the environmental requirements, and empowerment of teams for change (Box and Platts, 2005)
Internal marketing of processes	The same techniques used for the external marketplace (such as promotion, advertising, and monetary incentives) should be used to market change within the company (Piercy and Morgan, 1991). Processes and employment conditions should be viewed as products to be marketed, and the management should think like a marketer when dealing with people that are expected to implement change (Varey and Lewis, 1999)

Table 3. 6. Factors that originate from BPM and have an impact on the content (what) of change in large organisations (see section 3.3.2), derived from the model of Pettigrew et al. (1989).

Factor	Comment
Radical change	This method has been developed for British Aerospace and involves understanding of a current process, establishing a new process scope, and empowering teams for implementation (Iqbal, 2003)
Change agents	They should evaluate their strengths and weaknesses, use easy to understand language for process change, involve end users of the process, define success in the change outcome, implement a cost and time plan, and train stakeholders for change implementation (Cripe, 1993; Ershad, 2012)
Business innovation	This is an ideas generation method for improvement that requires team working, involvement of internal and external customers, and concentrating on the value proposition of change (Kovacev, 2008)
Team working	This refers to BPM specific efforts involving collective diagnosis of process problems, shared innovative ways of solving them, and agreed actions with local work units (Cusick, 2005)
Leadership	Transformational leaders have a better capability to introduce change in large organisations, while charismatic leaders can be more effective in smaller companies (Northouse, 2004). Change of processes can go through establishing a sense of urgency, communicating a vision, creating short-term wins, and institutionalising the new processes (Kotter, 1995)

Table 3. 7. Factors that originate from BPM and have an impact on the process (how) of change in large organisations (see section 3.3.3), derived from the model of Pettigrew et al. (1989).

Chapter 4. Research Methodology

In this chapter, there is an overall presentation and discussion about the research methodology that was adopted for this research project. The research was conducted in a Greek State Owned Enterprise (SOE) in the Aerospace industry. The primary research questions were formulated from the gaps found during the literature review. These questions are:

AQ AGP-CM: What role does Ancient Greek Philosophy play in facilitating or inhibiting change in the Greek SOEs?

BQ BPM-CM: How can change be implemented in the Greek SOEs through the adoption of Business Process Management?

The organisation in focus specialises in the aerospace industry and for reasons of confidentiality is called AERO S.A. (a pseudonym). The author worked in the organisation as a full time employee and was a member of a team responsible for facilitating a major change programme, transforming the old system of standard operating procedures (SOPs) into a business processes oriented system. More details about the organisation’s structure and related characteristics can be found in chapter 5.

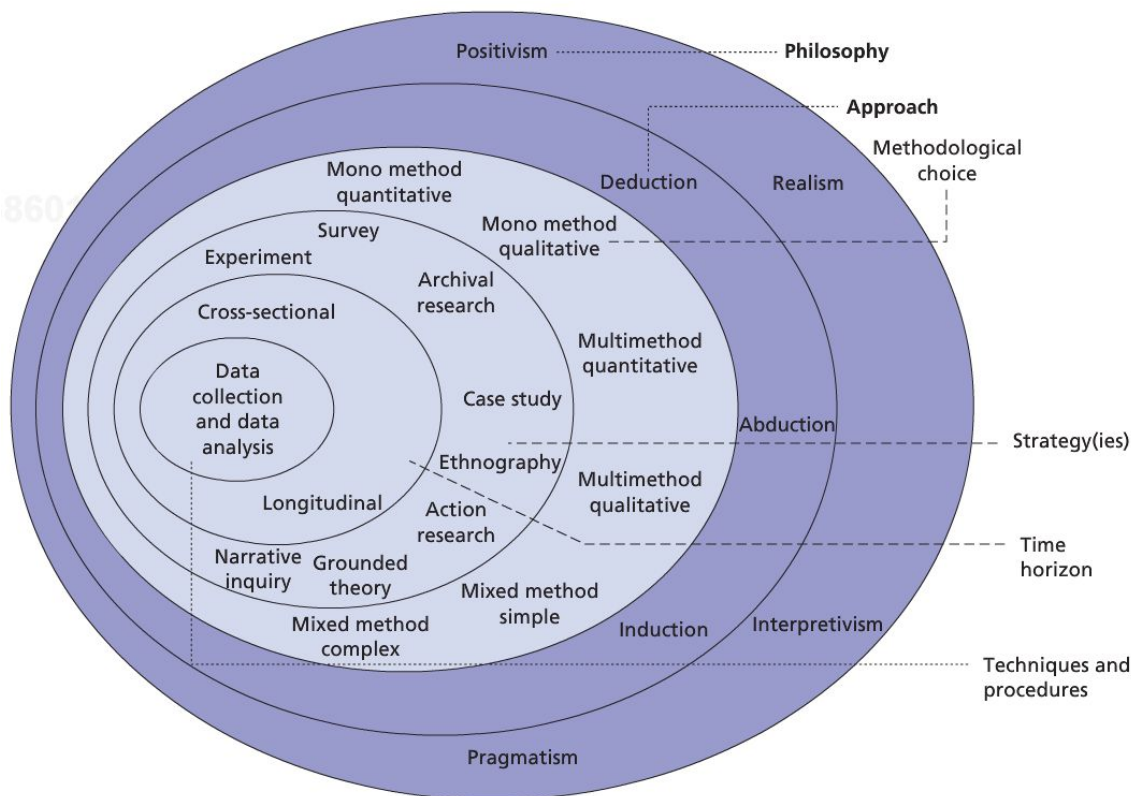


Fig. 4. 1. The research onion. Source: Saunders et al. (2012)

This chapter explains in detail the various aspects of the research methodology that were adopted in this research. It explains the reasons for selecting the general research philosophy down to the more specific data collection and analysis techniques (Fig. 4. 1).

Following the idea of research options outlined in Fig. 4. 1, a selection of research philosophy, approach, method, and strategy took place (see Fig. 4. 2).

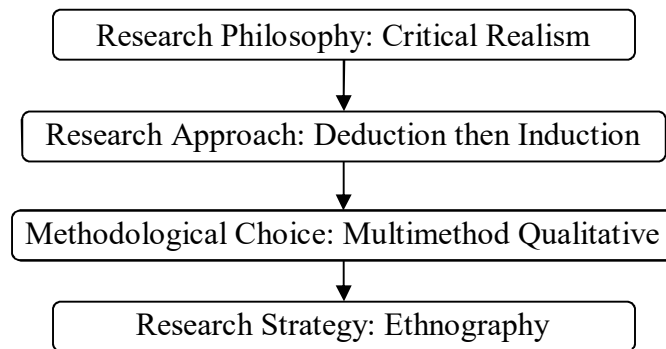


Fig. 4. 2. The research methodology that was adopted in this research project.

The research philosophy that was adopted by the author was that of critical realism, which believes that objects have an existence, independent of the human mind, and what we sense is reality (Saunders et al., 2012). The research approach was to first deductively explore the applicability of Pettigrew et al.'s (1989) model of context, content, and process of change in AERO. Then the approach was to inductively extend Pettigrew et al.'s (1989) model to examine and account for change in Greek SOEs. The main objective of the deductive approach is to evaluate the extent of validity and applicability of the existing theories in the specific organisational environment (Ketokivi and Mantere, 2010). The inductive approach entails data collection that is used to explore a phenomenon, identify themes and patterns, and then create a conceptual framework for that phenomenon (Saunders et al., 2012). The methodology adopted for the research project was qualitative, including data collection and analysis. The qualitative method attempts an in-depth understanding of human behaviour and the reasons that govern such behaviour, by using data collection techniques (such as interviews) or data analysis procedures (such as categorising data) that generate or use non-numerical data (Saunders et al. 2012). Multiple methods of data collection were used (i.e. unstructured interviews and focus group discussions), which render this a multimethod qualitative study (Tashakkori and Teddlie, 2010).

The research strategy for this research project was ethnography, which in a business environment is the type of research that explores organisational cultural phenomena (Saunders et al. 2012). The data collection was mainly based on unstructured interviews and focus group discussions. An unstructured interview is a data collection method that does not have strictly pre-arranged questions (King, 2004). Data were also collected from focus group discussions, where the author acted as participant-observer. Focus group discussions take place when a group of people provide their perceptions and beliefs, both when they are asked and by

talking to other group members (Harding, 2013). Participant observation is the type of data collection, where the researcher observes, records and analyses people's behaviours, while being part of the organisation being observed (Gill and Johnson, 2010).

The data analysis during the research project was carried out with the software NVivo 10.

After deciding to focus on Change Management (CM) in the Greek SOEs, and establishing that Ancient Greek Philosophy (AGP) and Business Process Management (BPM) could play an important role in CM implementation, a literature review was conducted. The aim was to identify factors that linked those themes either directly or indirectly (Fig. 4. 3).

The gaps found from the literature review were identified by focusing on: (a) the reasons for change (context); (b) what needs to change (content); and (c) the method of change (process), in line with the theoretical framework of CM, formulated by Pettigrew et al. (1989). The main objective of this approach was to assess the validity and applicability of the existing theories in the specific organisational environment and generate a conceptual model of interrelationships, in order to answer the research questions. This was an exploratory study of the interrelationships between the research themes, as they have been found in the literature review, and the way they are perceived in an organisation (Babbie, 2007). The scope of this research project was completed by drawing conclusions from the research results and making suggestions for future research work in the Greek SOEs.

The first section provides more depth on the change management framework of Pettigrew et al. (1989). The next four sections discuss the selection of the appropriate research philosophy, approach, method, and strategy (see Fig. 4. 1 and Fig. 4. 2). The following three sections discuss practical issues of gaining access to the data source, implementing a code of research ethics, and selecting an appropriate sample of participants. The next two sections provide details about the data collection and data analysis.

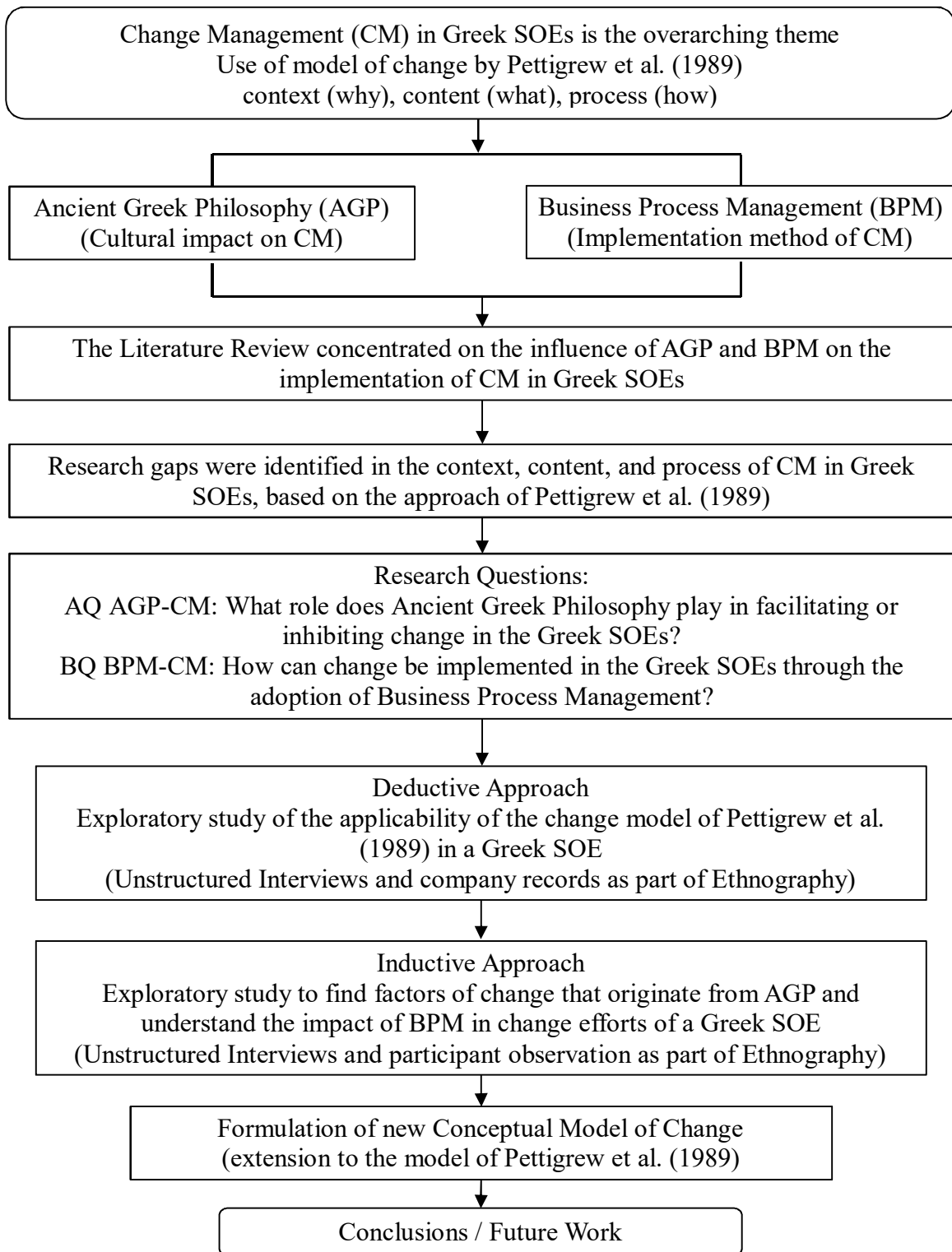


Fig. 4. 3. Step-by-step implementation of the research methodology in the research project.

4.1 Theoretical Framework of Context, Content, and Process of Change

The theoretical framework of Pettigrew et al. (1989) for change in the public sector and in SOEs was used as a basis for the current research project, mainly due to its high relevance (see Fig. 4. 4). Pettigrew et al. (1992) argued that change in the public sector and in the SOEs is a matter of understanding the particularities of these organisations in the current business and economic environment.

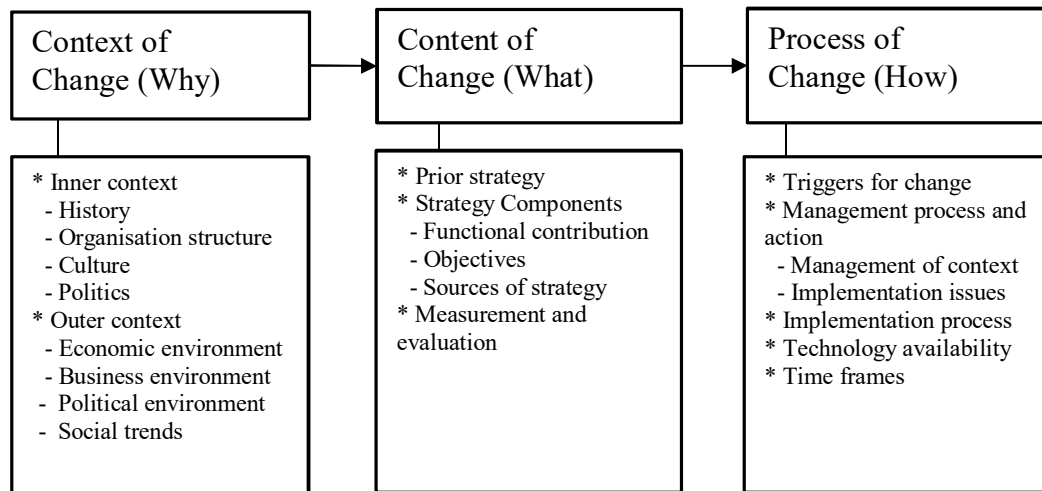


Fig. 4. 4. Model of context, content, and process in the management of strategic and operational change and competitiveness (Pettigrew et al., 1989).

Change in large public sector organisations requires the conceptualisation of three main change perspectives (Pettigrew et al., 1989):

- Why the change is needed; this refers to the context of change, which may be the national, economic, political, and social environment (outer context), as well as the organisational strategy, structure, culture, management, and politics of the organisation (inner context). Pichault (2007) argued that in the public sector the context should be distinguished between organisational policies (i.e. the conditions of everyday activities in the company) and the nature of the work carried out (i.e. levels of employee autonomy and variability);
- What needs to change; this refers to the content of change, or the particular areas of the organisation and its operation that need to be transformed, and whether the nature of change is gradual or fast, or based on technological change. In public sector reforms, the content may have strategic orientations (e.g. more professionalism and formalisation), and elements affected by change (e.g. recruitment procedures and training programmes) [Pichault, 2007]. The analysis of

content requires examination of the difference between the initial and end states of change (Greenwood & Hinings (1996);

- How should the change be implemented; this refers to the process of change, which recognises historical and continuing struggles for power accumulation by individuals and groups. The process of change is a sequence of actions and events that can explain the origins and the outcome of organisational phenomena, such as problems in effectiveness and efficiency (Gilbert et al., 2015). The process of change is complementary to the context of change as it formulates the action to the knowledge of what works (Langley et al., 2013). During the implementation stage, a complex interplay of power relationships among stakeholders with contradictory interests can emerge (i.e. those who want stabilisation and those who want a new direction of the organisation) [Pichault, 2007].

The organisation's history that is categorised under the inner context in the model of Pettigrew et al. (1989) encompasses the historical development of the organisation over time (see Fig. 4. 4). The structure refers to the formal arrangement of authority and responsibility within the organisational hierarchy. This is typically expressed in terms of functions in the company and/or the lines of project management that can be responsible for delivering products and services to the customers. The organisations in the model of Pettigrew et al. (1989) are perceived as cultures (i.e. webs of norms and common values and beliefs). Politics refer to the distribution of power within the organisation (e.g. the power divide between management and trade unions). The economic environment that is categorised under the outer context in the model of Pettigrew et al. (1989) refers to the national and international economic conditions that include recessions and crises. The business environment covers the demands, characteristics, and restrictions within the industry where the company operates. The political environment considers the international relations between the country (or countries) where the company operates and the rest of the world. The social (and economic) trends are the enabling or constraining conditions that affect the operation of the organisation. For example, many Greek SOEs were monopolies within the country since the 1970s. However, in the last decade or so, the Greek market has been gradually opening to allow private organisations to compete with the SOEs (Aleksiou, 2014).

Pettigrew et al. (1989) suggested that the prior strategic initiatives (or those currently in progress) of the organisation to implement changes contribute to the content of change in the organisation (Fig. 4. 4). The model recognised the importance of certain strategy components in the content of change. Such components include functional contributions, strategic

objectives, and sources of strategy. Functional contributions refer to the participation of various functional departments such as the IT and marketing. Objectives refer to the targets the change will achieve. Sources of strategy are the origins of change. These might be ideas for improvement from top to bottom or bottom-up, the impact of competitors, or ideas originating from experts in the industry. The measurement and evaluation in Pettigrew et al.'s (1989) model includes the performance measurement indicators from the execution of business processes, and comparison of targets with actual results.

The triggers for change that are categorised under the process of change in the model of Pettigrew et al. (1989) are the factors that caused management to realise the need for change (see Fig. 4. 4). Management process and action in the model include the management of context (i.e. the way the organisation operates in order to satisfy the requirements of the environment), and possible implementation issues (i.e. challenges that need to be overcome during change implementation). The implementation process refers to the various phases of change and what the organisation learns during those phases. The availability of technology refers to the technical means required to implement the changes. The time frames in the model refer to the whole time required to implement the changes.

The model of Pettigrew et al. (1989) originates from an observation made by the authors that any idea for change could lead to a dynamic process which resulted in that idea to be either unexplored, derailed, or on its way to implementation (Pettigrew, 2011). There was a contrast between strategic management as rational decision-making, and the empirical work of how strategies are actualised (Sminia, 2016). Pettigrew (1987) argued that the content of strategic change cannot be understood separately from the process by which it is actualised, and from the context in which it takes place. The formulation of the theoretical framework of context, content, and process of change of Pettigrew et al. (1989) was influenced by population ecology (Pettigrew, 2011). Population Ecology is a theoretical framework for change which assumes that, organisational survival requires compatibility with the organisational environment, which includes all the external social, economic, and political conditions that influence organisational actions (Druckman, et al., 1997).

Sminia (2017) notes that the theoretical framework involving context, content, and process of change is defined as contextualism, and the term was derived from Pepper (1945). The contextualist approach normally consists of six steps (Pettigrew, 2011):

- Drafting of a chronological description of the situation under study;
- Exploring change as it happens over time;
- Contrast the findings with existing theoretical frameworks;
- Focus on understanding the context of the change;

- Relate the content of change (i.e. what is changing) with the context;
- Integrate the process of change (i.e. how change is happening) with the context.

Using the model of Pettigrew et al. (1989) requires investigation of change over time and can be represented by a triangle with context, content, and process on its corners (see Fig. 4. 5). The three angles of the triangle should be treated as mutually constitutive. This represents a longitudinal methodology that can utilise multiple methods to collect data while change is progressing. It is important to supplement the model with historical data to understand where the change under observation originates (Sminia, 2017)

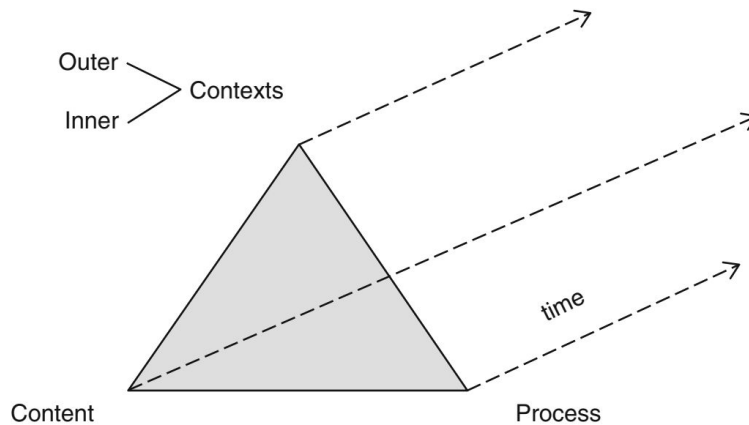


Fig. 4. 5. The longitudinal nature of the model of Pettigrew et al. (1989) and the equal importance of context, content, and process. Source: Sminia (2017, p1039).

While observing and exploring change in the organisation, the researcher should engage with the phenomena related to change and avoid just explaining them in a detached stance (Pettigrew, 2005; Schwarz & Stensaker, 2014). The model of Pettigrew et al. (1989) adopts a strategic approach to change, which means that the model focuses on critical processes that are associated with the high-level objectives of the organisation (Kettinger et al., 1997). The model creates a link between the initiatives for change and competitiveness, and the corporate strategy (Teng et al., 1998). The main purpose of Pettigrew et al.'s (1989) model is to comprehend change as it initiates from the top management. The top management can assess variations in the economic, business, and political conditions and implement new strategies in order to strengthen the competitiveness of the organisation.

According to Sminia (2016) the context, content, and process model of change developed by Pettigrew et al. (1989) is a milestone in the field of CM for large organisations owned or controlled by the state. The Greek SOEs are exclusively or largely controlled by the state. One of the main advantages of Pettigrew et al.'s (1989) categorisation of factors was that the external pressures for change, as well as the internal characteristics of the organisation

to achieve that change were taken into account. According to Newton (2000) and Lau (2002), this advantage was obvious in the model of Pettigrew et al. (1989). Furthermore, the data collection and analysis could take into consideration the historical perspectives of the organisation, which could be used for generalised theory building (Burgelman, 2011). The model provides the opportunity to understand change requirements in a wider perspective such as competitiveness, effective management of the public sector, effective human resource management, and managerial decision making (Sminia, 2016).

On the other hand, Buchanan and Boddy (1992) criticised the model of Pettigrew et al. (1989) for discouraging managers by making them realise that they have very little power in changing the organisational environment. Sminia (2016) argued that in Pettigrew et al. (1989), and Pettigrew (1987, 2011), there are sufficient details about designing and conducting a contextualist research project. However, these works lack detailed descriptions of how all the collected data has been analysed, apart from mentioning that judgment and discussion among research team members was required. Iqbal (2003) has argued that this type of model creation approach usually has the tendency to emphasise on the context and content of change, while having a weak orientation towards the process of change. The gap in knowledge on how to implement change (i.e. the process of change) in SOEs through the adoption of BPM has been stressed by Iqbal (2003). This is particularly relevant to the Greek SOEs that attempt BPM implementation. For that reason, the research focused on the study of BPM as a method of implementing change in the Greek SOEs.

Since the generation of the theoretical framework of Pettigrew et al. (1989), it has been used extensively within public sector organisations as a change management tool/technique or method (Rajan & Ram, 2000; LeBrasseur et al., 2002; Iqbal, 2003; Self & Armenakis, 2007; Pichault 2007; Al-Shahi, 2011; Axelsson, 2016). Some of the most important applications of the model derived from the literature review are presented in Table 4. 1.

Authors	Use of Pettigrew et al. (1989) model in public sector organisations
Rajan & Ram (2000)	A case study of restructuring in the Indian electricity supply industry that indicated a requirement for government commitment and policy on power sector reform, strong leadership within the organisation, and measures to develop the management capability of the utility
LeBrasseur et al. (2002)	Two case studies in Canadian public hospitals concentrated on organisational learning through the implementation of change following external pressures from the government. Resistance to change was reduced through dialogue and top management commitment.
Iqbal (2003)	A method of radical change has been developed for British Aerospace and involves understanding of a current process, establishing a new process scope, and empowering teams for implementation
Karyda et al., (2005)	Research on change from the implementation of information systems security policies in a social security organisation and a centre for the treatment of vulnerable individuals in Greece. Hierarchical structures inhibited change efforts. Use of a code of practice in the organisation was facilitating to change. The change efforts generated increased internal competition among employees.
Constantinides & Barrett (2006)	Implementation of a public telemedicine system in a healthcare region of Greece. Focus was on context and process and their interaction with the information and communication technology systems. Intense internal and external stakeholder dynamics were observed through continuous negotiations to allow and shape the implementation of change.
Self & Armenakis (2007)	It was implemented in a large telecommunications organisation and was concluded that when employees perceive that their organisation is supportive of them, receptivity of change may increase towards the organisation's justification for introducing a change initiative
Pichault (2007)	It concentrated on public sector reforms in Belgium and particularly in the Human Resources Management divisions of three organisations. Even though the reforms were imposed by the government in the same way to all organisations, there was variability in the context, content, and process
Al-Shahi (2011)	Emphasis was given to change implemented to improve inter-organisational collaboration in public sector in Oman. A new framework was developed by focusing on the context and the process of change.
Gilbert et al. (2015)	The model was used in five government-controlled healthcare organisations in Canada. The origin of change was public policy for reforms. Actualisation of change was observed in three stages: (a) building consensus for the need to implement the change; (b) the organisations went through an accreditation of the policies to agree with the government what changes should be implemented; and (c) the change implementation programme was put in action
Axelsson (2016)	It focused on strategic change in the Swedish public education sector. Misconceptions and little understanding among the research participants was evident. The main requirement was to fine tune the change initiatives so that they take into account the local conditions. The change should be implemented incrementally rather than radically.

Table 4. 1. More recent use of the model of context, content, and process of change of Pettigrew et al. (1989) in public sector organisations.

The particular model of context, content, and process of change of Pettigrew et al. (1989) was selected for this for the following reasons:

- The research problem and the premises of the conceptual framework are aligned. The main research problem is the understanding of contextual and processual factors associated with the implementation of change. The main premise of the change model is to explore the contextual and processual factors as a social phenomenon;
- This model has been developed with large organisations in mind and has been traditionally used for exploring change in public sector organisations. AERO is the largest aerospace organisation in the country and is controlled and owned by the state;
- The theoretical framework of Pettigrew et al. (1989) relies on historical organisational information to generate understanding of the current situation, and understand why change is needed and what needs to change. The internal and external historic characteristics relating to the operation of Greek SOEs, combined with guaranteed long-term employment have shaped the background where change is attempted.
- The nature of the research problem is dynamic, since organisational change is influenced by fluctuations in the business and economic environment, as well as the internal contextual framework. One of the major parameters of the change model is the dynamic nature of its parameters over time;
- The Ancient Greek Philosophical influence as a facilitator or inhibitor to change, combined with the impact of the change management method of Business Process Management are particularly important in Greek SOEs. The model of context, content, and process of change of Pettigrew et al. (1989) allows the understanding of the interactions between AGP and BPM factors of change under its constitutive components.

Four alternative models were considered to structure the research:

- McKinsey 7-S model by Waterman et al. (1982);
- Receptive Context of Change model by Pettigrew et al. (1992);
- Cultural Web model by Johnson & Scholes (1999);
- Radical Change Method by Iqbal (2003).

These models are presented in Table 4. 2. The researcher believes that the model of Pettigrew et al. (1989) is the most appropriate one among the ones considered, since it combines the advantages of the alternatives, while it shares none of their disadvantages under consideration.

Model / Author	Summary	Factors considered	Strengths / Weaknesses
McKinsey 7-S Waterman et al. (1982)	It is a model to assess change through four hard (easy to evaluate) and three soft (difficult to measure) change parameters. The parameters are interdependent, which means if one is changed, there are changes to the rest.	Strategy, Structure, Systems, Skills, Staff, Style, Shared values	Implementation of such a model can have an impact on culture and facilitate change. The history of the organisation and its environment play very little role.
Receptive Context of Change Pettigrew et al. (1992)	The model builds on the earlier model of context, content, and process of change by Pettigrew et al. (1989). It is derived from empirical studies in healthcare organisations. It explores the interaction between eight factors that influence receptivity (acceptance and adoption) of change	Quality and coherence of policy, Environmental pressure, Organisational culture, Change agenda & its locale, Simplicity of goals & priorities, Cooperative inter-organisation networks, Managerial relations, Key people leading change	Complexity of the interactions between factors is taken into consideration. Takes into account both external / internal context of change. It can help managers align change with strategy. It does not take into account local legislation that could be inhibiting change efforts through bureaucracy. There is a lot of emphasis on the contextual outcome of change but not so much on the process of change (i.e. implementation method).
Cultural Web Johnson & Scholes (1999)	Culture is a metaphor for the organisation. Factors inhibiting change are analysed to implement change and align operations with strategy.	Stories, Symbols, Power structures, Organisational structures, Control systems, Rituals & routines	Analysis of the organisational culture is a process to generate collective cooperation and improvement. It has very little consideration of the business and economic environment of the organisation.
Radical Change Method Iqbal (2003)	It is an extension of the model of context, content, process of change of Pettigrew et al. (1989). It was implemented in a large British Aerospace organisation. It views change as a process itself.	Evaluation, Envisioning, Empowerment, Pursuit of Excellence	It takes into account the historical aspects of the organisation, the external pressures for change, and the internal politics. It adds parameters to the process of change for the specific industry. The study was limited to a case organisation undergoing radical change; there is no proof that this is applicable to gradual change cases. The model does not offer any extension to the content of change.

Table 4. 2. Alternatives to the model context, content, and process of change of Pettigrew et al. (1989) considered to structure the study of change in the Greek SOEs.

The model of context, content, and process of change of Pettigrew et al. (1989) can be complementary to BPM in the following ways:

- Change in the model is a process itself. This means that change can be a sequence of first understanding why change is needed, then negotiating what needs to change, and finally, formulating how to implement the change (Pettigrew et al., 2001; Iqbal, 2003; Paroutis and Pettigrew, 2007; Pettigrew, 2011);
- The model of Pettigrew et al. (1989) helps align the business processes with the organisational strategy (Iqbal, 2013). The key element of the model that is complementary to BPM is the improvement and adaptation of business process to reach the organisational goals (Smith and Fingar, 2003). Thus, with the use of the Pettigrew et al. (1989) model of change, BPM efforts can concentrate on designing and operating processes that adapt to the changes in customer requirements;
- Changes in the organisational structure can be a result of BPM implementation in an attempt to generate more effective processes (Dumas et al., 2013). The model of Pettigrew et al. (1989) examines the role of structure, so that barriers between departments are eliminated to enhance cross-functional cooperation (Dale et al., 1999);
- Pettigrew et al. (1989) emphasise on the significance of examining the context of change by starting from the history of the organisation. BPM does not necessarily demand a historical review of the organisation. However, understanding the historical context of the organisation helps bring continuity and change in BPM efforts (Jarzabkowski, 2003);
- The model of Pettigrew et al. (1989) is reliant on the external business, political and economic environment. Dale et al. (1999) argued that consideration of external factors such as the business environment and the economic – political climate when designing new processes can help reduce or even avoid destabilisation of the organisation during the change steps. This is mainly because the change stakeholders can envisage a wider perspective of business improvement and grasp the reasoning behind changing business processes;
- Pettigrew et al.'s (1989) model does not only think about the past and the present, it also thinks about the future (Pettigrew, 2011). It considers change as an evolution during time. Considering the time frame of BPM implementation can prove very important in the success of process improvement projects, as each organisation may have its own pace of BPM implementation (Vidgen and Wang, 2006);

- The model of Pettigrew et al. (1989) emphasises on the role of internal political forces and power distribution in the organisation. In BPM, such internal political phenomena can manifest with the formation of coalitions of interest groups that are in tension (Pfeffrey, 1993). For example, management versus workers, production versus sales, and so on. The organisation is therefore a balance of forces, which continually shift. An appreciation of such political dynamics helps to realise who has the power to facilitate or inhibit BMP efforts.

4.2 Research Philosophy

Following the approach defined in Fig. 4. 1 and Fig. 4. 2, the first step was to specify the research philosophy. Johnson and Clark (2006) noted that researchers need to be aware of the philosophical commitments for the choice of research strategy, because this has a significant impact on the understanding of what is investigated. According to Robson (2011), in order for a research methodology to be credible, the researcher must adopt a scientific attitude, which underlines the need for a systematic, sceptical and ethical approach. Fig. 4. 1 shows some of the different research philosophies that a researcher could adopt. The researcher has embraced the realism philosophy for conducting this research project. Realism closely relates to scientific enquiry and it assumes a scientific approach to the development of knowledge (Blackburn, 2005). At the epicentre of realism lies the notion that what one senses is reality, and objects have an existence, independent of the human mind (Saunders et al., 2012). Realism supports the collection and the understanding of data, and the reality is viewed as a function of existing theories to explain various effects, by finding the prior and current cause (Arbnor and Bjerke, 1997). Thus, practitioners utilising this approach try to understand the system by studying the actors within the system.

The realism research philosophy is aligned with the Socratic philosophic approach, mainly because it assumes that regardless of the individual perspectives of observers, there is a universal reality (Manousakis, 2003; Oikonomou, 2006; Makris, 2006). This view contradicts the belief that only the mind and its contents exist; the underlying idea is that the reality is independent of the mind (Crotty, 1998; Kyrtatas and Ragkos, 2013). So, when a person learns to use his / her own reasoning, he / she can think and find the universal truth (Van Hooft, 1999). The realism research philosophy is also aligned with the change management model of Pettigrew et al. (1989), particularly for the categorisation of change

under the concepts of context, content, and process that were reviewed in the previous chapters. Furthermore, it is especially relevant when there is a need to develop theories, through the collection of evidence (Arriaga-Martinez and Cossio-Priego, 2013). This philosophy offers the opportunity to assume that there is an external, complex reality that can be grasped through observation of information (Craig, 1990). The approach to CM by Pettigrew et al. (1989) does not only recognise the meaning of the data collection, but also interprets the underlying meaning of the data, as it is required in the realism research philosophy (Fairclough et al., 2004; Jiang and Carpenter, 2013). The data collection in Pettigrew et al. (1989) cannot guarantee that the model created has a general applicability, simply because of the realist philosophy (Aliyu et al., 2014). However, the realism research philosophy attempts to symbolise a mind-independent truth or reality (Khlemtzos, 2004).

The Direct and Critical Realism are two categories of the realist research philosophy (Saunders et al., 2012). On the one hand, Direct Realism assumes that whatever people experience through their senses portrays the world accurately (Gibson, 1972). Critical realism, on the other hand is based on the belief that all experiences of people are sensations (Bhaskar, 2008; Coelho, 2010). These sensations are the images of the things and situations in the real world, not the things directly (Bhaskar, 2008). Critical Realism recognises the interactions between organisational structures and processes with the environment that is also in a dynamic state of change (Saunders et al., 2012). This view renders the Critical Realism research philosophy much more in line with the study of change, compared to Direct Realism (Saunders et al., 2012).

In business and management, the critical realist should recognise the importance of multilevel study (at the level of the individual, the group and the organisation), since each of these levels can influence the researcher's understanding of what is being studied (Sayer, 2000). Critical realism claims that there are two steps to experiencing the world: first, there is the object or situation itself and the sensations it conveys; and second, there is the mental processing that continues for some time after that sensation meets our senses (Saunders et al. 2012). According to Bhaskar (2008), critical realist researchers only understand what happens in the social world if they understand the social structures that have given rise to the phenomena that they seek to understand. In other words, what people see is only part of a bigger picture. For example, a researcher may observe the dialogue between two people that are in a very intense and controversial argument, even involving insults. The critical realist will accept that he or she experiences adversary behaviour from one person to the other. However, he/she cannot come to a conclusion of the ultimate reality of the situation unless he/she examines it from different perspectives. For instance, the two subjects may appear to

be adversaries and have a fighting dialogue about an issue, while in reality they may be both in a very friendly and cooperative mode of sarcastically/humorously replicating a situation they both find scornful (e.g. acting up). Dobson (2002) argued that people's knowledge of reality is a result of social conditioning and cannot be understood independently of the social actors involved in the knowledge derivation process. Consequently, regardless of how much a social researcher tries to be detached from the research he conducts, there is a high probability of subjective viewing. Ultimately, the organisational reality that is either explained or explored takes place in a social construction (Morgan & Smircich, 1990). The social construction refers to an organisation where people are habituated in a common understanding and perception of each other's actions that become institutionalised after some time (Berger, 1966).

4.3 Research Approach

The second step in the specification of research methodology in Fig. 4. 1 and in Fig. 4. 2 was the selection of the research approach. The research was conducted following initially a deductive and then an inductive analysis of the data collected in AERO. The main objective of the deductive approach is to evaluate the extent of validity and applicability of the existing theories in the specific organisational environment (Ketokivi and Mantere, 2010). The applicability of the theoretical model of change (incorporating context, content, and process) developed by Pettigrew et al. (1989) was explored in AERO. What is usual in an inductive research approach is to identify a gap in the logical argument, between the conclusion and the premises observed, while the conclusion should be supported by the observations made (Ketokivi and Mantere, 2010). According to Saunders et al. (2012), the inductive approach entails data collection that is used to explore a phenomenon, identify themes and patterns and then create a conceptual framework to explain the phenomenon.

Fig. 4. 3, shows that initially, the objective was to create a theoretical model of Change Management (CM) for the Greek SOEs. Ancient Greek Philosophy (AGP) was established as an underlying theoretical framework that influences CM in Greek SOEs. Then, the implementation of CM in Greek SOEs is influenced by deployment of Business Process Management (BPM).

The deductive analysis was conducted by going through the following steps suggested by Blaikie (2010):

- Initially testable propositions about the validity of context, content, and process in the model of Pettigrew et al. (1989) were put forward to form the starting theoretical framework;
- By using existing literature, some testable propositions were deduced. These propositions referred to the facilitating or inhibiting role of AGP on change implementation in the Greek SOEs;
- The logic of the argument that produced the above influencing factors was examined by comparing this argument with the existing factors in Pettigrew et al. (1989) to see if it offered an advance in understanding;
- The above propositions were tested by collecting appropriate data to evaluate how consistent were the resulting themes with the situation in AERO;
- The above consistency was not corroborated in all the examined propositions for the particular organizational environment. For that reason there was a need to follow up with the development of a new theoretical framework. The latter was elaborated during the inductive analysis.

According to Saunders et al. (2012) deduction has its origins in research in the natural sciences. However, the emergence of the social sciences in the twentieth century led social science researchers to be critical of an approach that enabled a cause–effect link to be made between particular variables without an understanding of the way in which people interpreted their social world. Another criticism of deduction is that it normally constructs a rigid methodology that does not allow alternative explanations of what is happening. Consequently, there is a sense of finality about the selection of theory and definition of the hypotheses (Easterby-Smith et al., 2008). Topics on which there is adequate literature, and from which an initial theoretical framework and hypotheses can be defined, lend themselves more readily to deduction (Saunders et al. 2012). This was to a great extent the situation with the current research project. There is indeed a plethora of literature about CM, BPM, and AGP. This was viewed as a good starting point of gathering a theoretical platform to work with, regardless of the fact that there was not adequate literature focusing on the interrelationships of these elements and in particular for Greek SOEs. This phase of the research generated new exciting topics with much debate among the participants and on which little literature sources could be found. As Saunders et al. (2012) argued, in a situation such as this, it is more appropriate to work inductively by generating data and analysing and reflecting upon what theoretical themes the data are suggesting. This was the main reason why, for this research, the deductive approach was followed by an inductive analysis of the data.

According to Saunders et al. (2012) a strength of the inductive research approach is that it can lead to the creation of a theoretical model of influencing variables between particular factors, through an understanding of the way, people interpret their social world. Another advantage of induction is that it does not necessarily construct a rigid methodology. This allows alternative explanations of what is happening to be presented, which means there is no finality about the formation of theory (Easterby-Smith et al. 2008). Many authors have suggested that an inductive approach is well aligned with the study of change in organisations, mainly because the researcher can collect data, analyse the different perspectives and generate a theoretical model for change (Anderson, 2009; Irwin, 2010; Majewska-Button, 2010; Mitchell, 2011; Sorensen and Shulamit, 2012; Jenks, 2013; Nancarrow et al., 2013; Arbab et al., 2014). Topics on which there is inadequate literature, and from which an initial theoretical framework and hypotheses cannot be defined, lend themselves more readily to induction (Saunders et al. 2012). This was to a great extent the situation with the current research project, particularly for literature targeting interrelationships of the research themes being explored in Greek SOEs.

The sequence of deduction-induction was in line with the methodology followed by Pettigrew et al. (1989) in generating the model of context, content, and process of change (Corbin and Strauss, 2008). Such an approach was also followed by Iqbal (2003) and McCafferty (2013) who used Pettigrew's models of change in large public-sector organisations such as British Aerospace and the NHS respectively.

A critical realism philosophy was adopted for this study, mainly because of the acceptance of a single objective reality that can be captured in a theoretical framework by observing relevant phenomena (Manicas, 2006; Bhaskar, 2008; Tsekeris, 2010; Bendassolli, 2013; Scrambler, 2015). Critical realism can accommodate the deductive-inductive approach by studying groups, environment - related factors, and changes as they happen, thus generating meanings and interrelationships for process improvements as they occur (Pawson and Tilley, 1997; Fairbrother et al., 2015). Critical realism allows for logical inferences, by focusing on the interrelationships between factors that can be inductively categorised, to create a theoretical framework (Downward et al., 2002). Logical inference is the study of a sample that leads to the discovery of interrelating factors that justify a phenomenon, rendering the researcher confident that the same factors apply to a larger population (Mitchell, 1983).

4.4 Research Design (methodological choice)

After specifying the research approach, the research design is concerned with the overall plan of the research project and it mainly involves the choice of research methodology (Saunders et al., 2012). Fig. 4. 1 illustrates that the main methodological choice has to do mainly with selecting whether the research is qualitative, quantitative or mixed. The research method adopted for this research project was qualitative (Fig. 4. 2). Qualitative methods can conveniently be associated with any data collection technique (such as an interview) or data analysis procedure (such as categorising data) that generates or uses non-numerical data (Saunders et al. 2012).

The qualitative method was followed for both data collection and data analysis. Qualitative studies aim for depth, usually with only a single example or a very small number of related examples (Cooper & Schindler, 2003). Robson (2011) argued that there are various reasons why qualitative research might be selected. For example, it might be difficult to determine whether there are existing theories to support the researcher's ideas, or not. Indeed, there was dearth of literature about the influence of AGP and BPM on CM, particularly for Greek SOEs. Furthermore, qualitative research allows purpose determination and basic planning, but the plan morphs as the research unfolds. Finally, according to Robson (2011), qualitative research allows the researcher to be one of the subjects of research and become immersed in the study. This was the case with the author of this research project, as he was employed by the company, where the research took place.

The realism research philosophy (adopted in this research project) can often lead to qualitative methods of analysing data being used to explore perceptions (Segal-Andrews, 1994; Tashakkori and Teddlie, 2010). The category of qualitative methods that uses one or more qualitative data collection techniques (e.g. interviews and focus group discussions), to answer the research questions is known as multiple qualitative method, or multimethod qualitative (Tashakkori and Teddlie, 2010). The qualitative multimethod can combine the strengths and overcome the weaknesses associated with using only one method, as well as providing scope for a richer approach to data collection, analysis and interpretation (Bryman, 2006). Multimethod qualitative studies can inductively explore the factors that lead to ambiguity and relationships, complicated by contradictory interests and tangled power, which can be present in large organisations influenced by the state (Cobb and Rubin, 2006). The multimethod qualitative data can suggest new trends in information use, changes in people's attitudes and behaviours (Rowley and Urquhart, 2007). Even though, the multimethod qualitative study allows detailed exploratory analysis of a sample (that was the case here),

with the aim to generalise a theory, the findings may be limited to a certain period of time, during which the data were collected (Wondimu et al., 2010). The multimethod qualitative study can provide the opportunity to debate, break down assumptions, question, and enact the learning (Vandermause et al., 2014). Auster and Wylie (2006) argued that this type of qualitative method can promote active learning (i.e. proceed to action based on what someone has learned, and think about the consequences of these actions).

The qualitative methodology has been implemented by many researchers who study change in SOEs or in the public sector, in order to explore factors that influence the change process (Onyango-Ouma et al., 2001; Stewart and Kringas 2003; Ates, 2004; Drummond-Hay and Bamford, 2009; Romana, 2010; Stoltenkamp and Akwega, 2011; Odelius et al., 2015; Pilkaitė and Chmieliauskas, 2015). The qualitative multimethod has repeatedly been adopted in the theoretical framework of change developed by Pettigrew et al., (1989), both in the case of private and public sector organisations (Iqbal, 2003; Pettigrew, 1987, 2001, 2005, 2011, 2012). Many researchers have used the qualitative multimethod for the study of Business Process Management in SOEs and in the public sector, with the aim to understand the interrelationships between factors affecting change (Thompson, 1996; Czaban and Whitley 1998; James, 2006; Gore, 2008; Protopsaltis, 2008; Gohr and Santos, 2011; Ahrend et al., 2013, Niehaves et al., 2013). The possibility of using the Socratic dialogue as a qualitative method of research in SOEs and in the public sector has been explored by many researchers (Hannabuss, 1996; Parker and Pearson, 2005; Boghossion, 2006; Prescott, 2011; Grill et al., 2015; Kalathaki, 2015).

4.5 Research Strategy

Following the methodological choice of qualitative research discussed in the previous section, the next step was to decide about the research strategy (Fig. 4. 1 and Fig. 4. 2). The research strategy for this project was ethnography. According to Denzin and Lincoln (2011), ethnography is a very suitable strategy to study groups and their cultural aspects. One of the main characteristics of ethnography is that the researcher works among the people who he/she is studying, and the people that are being studied interact with one another and share the same space with the researcher (Saunders et al., 2012; Yanow, 2012). The author of the thesis worked in the same organisation with the people that he studied. Moreover, the researcher

participated in focus groups as a participant – observer. Therefore, ethnography was considered an appropriate research strategy.

In particular, the author of this thesis believes that as a researcher, he is a realist ethnographer. The realist ethnographer typically uses experiences and observations of implementing change within the organisation, and believes in objectivity, factual reporting and identifying true meanings (Englund et al., 2000; Cunliffe, 2010). This type of ethnographer is expected to report an observed situation through facts, structures, processes and practices (Jordan and Lambert, 2010). The realist ethnography research philosophy can expose multiple histories in the organisation, at once and create forms of existence in the world (Cucu, 2010). The realist ethnographer writes up his/her account in the third person, portraying his/her role as the impersonal reporter of facts, using edited quotations without personal bias (Fischer, 2010). The realist ethnographer can generate credible depictions of situations because: (a) realist data provide evidence for understanding the world; and (b) a testable theory can be developed (Fine, 1999).

The researcher has adopted the realist ethnographer role, as much as possible, particularly during data collection. Nevertheless, it can be argued that there was a degree of interpretive ethnography, particularly during the grouping of data into categories for further analysis. Interpretive ethnography allows for the likelihood of multiple meanings rather than identifying a single true meaning (Ybema et al., 2010). In simple terms, if another researcher analysed the same data, he/she might identify different interrelating factors than the other researcher. There is even the possibility that the same researcher may analyse the same data differently at a future point in time.

According to Corbin and Strauss (2008), the researcher usually collects and analyses data simultaneously, developing analytical codes as these emerge from the data, in order to reorganise the data into categories. The reorganisation of data into categories is called open coding, and the process of recognising relationships between categories is referred to as axial coding (Pratt, 2008). Then, the integration of categories to produce a theory is labelled selective coding (Saunders et al. 2012). Such coding techniques were implemented in this research project. Further details about the inductive data analysis are provided later in this chapter.

The ancient Greek philosopher Aristotle is believed to be one of the pioneers of ethnographic examinations by developing analyses of the human condition, while focusing on people's activities as meaningful, purposive endeavours (Blumer, 1969; Prus and Mitchell, 2009). Aristotle as an ethnographer, observed human conduct in an inductive approach by

exploring the interrelationships between factors that can generate theories, based on cause and effect reasoning (Puddephatt and Prus, 2007; Grills and Prus, 2008).

Multiple qualitative methods used here (e.g. interviews, focus group discussions) are suitable for ethnographic research in organisations, mainly because they promote communication and observation that leads to better understanding of different views about a situation (Denzin, 1995; Fine, 1999; Maguire, 2006; Stevens, 2007). Many authors claim that ethnography is a suitable research strategy for the realist research philosophy that was adopted here (Porter, 1993; Brannan, 2005; Dean et al., 2006; Alvesson and Skoldberg, 2009; Budd, 2012; Oladele et al., 2012; Barron, 2013; Suckley et al., 2013). Ethnography can uncover real unwritten rules of organisational operations by enabling diagnosis of the situation, and sometimes change and improvement (Scott-Morgan, 1994; Ellison and Owen, 2010; Ellison and Flowers, 2012). The ethnographic research strategy can provide a platform for developing an extension to the theoretical framework of Pettigrew et al. (1989), by analysing what was said and how it was said (Zeld, 1996). Ethnographers tend to study change and business processes in SOEs, mainly because the multitude of participants' perspectives needs to be sorted into meaningful categories for theory development (de Waal, 2004; Giannaris, 2005; Stowe, 2005; Davin, 2006; Gore, 2008).

4.6 Gaining Access

According to Saunders et al. (2012), the ability to obtain data for the research relies heavily on gaining access to an appropriate source; traditional access to data (i.e. face-to-face interaction) is the most common type of access in an organisation (as was the case with AERO, during conducting interviews and observations).

The researcher was a full-time employee of the organisation where he was conducting the research. The unit where he was employed was highly experimental and was at the forefront of new developments in management. By definition, it was the managerial Research & Development (R&D) function of the company. The nature of the job was such that it allowed the researcher to have a high exposure and access to all the directorates and subordinate departments of the organisation. The unit that employed the researcher acted as an internal consultancy for reorganisation and strategic issues. Conducting systematic research was the main function of the researcher in his everyday working life. BPM and CM were both important for the managerial unit and the organisation. The researcher informed his

managers of his intention to conduct business / management research for academic purposes and gave an outline of the research scope as well as the methodology to be followed.

Permission was given to conduct the research with the main condition that confidentiality and anonymity of both the organisation as well as the participants involved was kept. Due to the nature of its business, AERO S.A. has a relatively strict policy about outgoing information. This barrier was easily overcome by well-established academic practices. For instance, a pseudonym for the organisation's name was used, while avoiding giving information from the data collected that would reveal people's real identities and organisational situations, of a sensitive nature. The agreement between the researcher and the organisation also included that the findings of the research for academic purposes would be completely accessible by anybody in the organisation.

The employment of the researcher in the organisation thus facilitated access to the data used in this research project. During the researcher's employment in AERO, the organisation was attempting a change programme of converting an old system of standard operating procedures (SOPs) into a system of using business processes under the aegis of BPM. The nature of the researcher's work involved frequent meetings with all the company's directors and key individuals (called process facilitators) responsible for the advancement of change towards being a process-based organisation. According to Easterby-Smith et al. (2008), the major concerns of organisations about granting access to researchers are: cost, sensitivity of the topic and confidentiality of information. The cost of conducting the research to the organisation was ultimately minimal. This was due to the fact that the data collection method coincided to a great extent with the researcher's duties as an employee of the company. This setup provided the opportunity to use these discussions for collecting data for this research project.

All of the participants were informed beforehand about the intention of the researcher to use parts of their conversations for the fulfilment of a PhD degree and when asked, there was no objection by anyone. According to Robson (2011) gaining cooperation from the intended participants is a matter of developing relationships. The fact that the researcher was generally trusted as a colleague, also eliminated early suspicions about why he was undertaking the research project and what use would be made of the data. To that extent, it was observed that as the interviews were progressing in various parts of the company over time, the participants were becoming quickly more and more open to discussion and debate.

4.7 Ethical Considerations

Saunders et al. (2012) provided a definition of business research ethics as the standards of behaviour that guide the conduct of the researcher, in relation to the rights of those who become the subject of the work, or are affected by it. According to Edelstein et al. (1987), possibly the first ethical principles were written by Hippocrates, an Ancient Greek physician considered to be the father of medicine. This statement of ethical guidelines (Hippocratic Oath) was written for the conduct of medical doctors, and in the modern world it would be equivalent to professional medical standards (Sritharan et al., 2000). While it has been used as an oath to swear in newly qualified doctors in the modern world, it has been reformulated through time to accommodate different cultural values (Hulkower, 2010). The ethical principle in the Hippocratic Oath of avoiding harm and injustice, and respecting privacy has remained as a vital ethical principle for today's researchers. The author of this research project adopted a deontological view of ethical conduct. According to Berry (2004) deontology requires following rules to guide the researcher's conduct; acting outside the rules can never be justified and if the rules are inadequate, it is necessary to amend them. As a basis of appropriate conduct, the researcher has abided by the code of ethics of the University of Newcastle upon Tyne, where this research project is to be submitted for a PhD degree. Similarly, the researcher has abided by the business ethics of AERO, where the research took place.

Wolcott (2009) emphasised that in qualitative research, one of the main opportunities and challenges is to regard the people that participate in the research from a humane point of view. They should not be regarded as subjects. The point for the researcher is to realise that he/she is a human conducting research among other humans rather than on other humans. To the best of the author's knowledge, no action or negligence of action has occurred during the research project that would cause any harm to the organisation or to any of the people participating in the research. The researcher has always striven to operate with integrity and objectivity, acting openly and being truthful about the details of this research project. In order to conduct a successful research project, the author has tried to develop trust and respect among the research participants, with the utmost respect for people's dignity.

Maintaining the anonymity and confidentiality of the organisation and of the participants has been a standard practice throughout the research project. Whipp and Clark (1986) have demonstrated that the anonymity for interviewees does not require fictionalisation of the organisation, since findings can be analysed and abstracted from time and place, as if existing in an extended present. No data or information about the

organisational specifics, or of people involved, have been revealed in this project without the consent of the individuals involved. For instance, when people's responses to questions or opinions have been quoted in this research, their consent has been ensured beforehand. On certain occasions, the relevant positions of the individuals (e.g. director of marketing, process facilitator in training) have been revealed when quoting their opinions because they have been asked to give permission (their names have always been withheld). All of the data that were collected during the research project will remain in the secure possession of the researcher. Participants have also been informed that they can have access to their interview data if required. Access to the data and the findings will be made available to the organisation, where the research took place.

The researcher believes that this research project represents a win-win scenario for all the people involved, including AERO's management and other employees, as well as the researcher himself. The organisation will have full access to the findings of this research project. The organisation's goal during this research project was to implement a change programme by adopting Business Process Management. The researcher spent most of his time collecting data for the research in a similar way to how he carried out his job, which was the facilitation of the above organisational goal. The researcher will benefit from the use of the data collected by submitting it to fulfil the requirements of a PhD degree and also learn how to be better at his job. The participants were given the opportunity to participate in a study, to have their voices heard and become better informed on how to contribute in the organisational goal for change.

4.8 Selection of Sample

According to Robson (2011), a major reason for selecting the target population and a target sample in qualitative research is the availability of the population and of the sample. In this research project, population refers to the whole of the workforce in AERO and sample refers to the selected participants. The qualitative researcher should deliberately seek a sample that specifically fits the focus of the research (Robson, 2011). The particular sampling avoided cost and time constraints of including all the population in the research data collection. This is why data collection from a sample may actually generate higher quality results than data collection from the whole population (Barnett, 2002).

During this research project, the sample was selected in such a way that it comprised company directors and process facilitators of the organisation. The main reason for selecting those individuals was that they were key influencers to the main research project elements and it was possible to consistently interview them. Both the directors and the process facilitators of each directorate had the main responsibility of realising the change from the old system of business procedures into business processes according to the company policy. Depending on the processes, a director, or a process facilitator might typically have process ownership after the changes. This did not necessarily mean that the process (activity and task) owners carried out the work all by themselves. Particularly, the process facilitators were perceived in the organisation as change agents who had to find creative ways of leading this change program that took the form of project management. The process facilitators had an administrative role in the organisation. They were following up any requirements for review of existing processes with the process owners within the Directorate where they worked, and they were the main point of contact with the Planning & Organisation Directorate in order to disseminate information and any issues relating to the change implementation. The role of process owners was to be responsible for the governance of process performance and process change. Process owners were functionally positioned within the Directorates of the organisation and had to implement the decisions of the top management. The roles of process facilitator and process owner were established as a result of the relevant requirements of the Greek State Law 3429 for the operation of Greek SOEs (Papoulias, 2005).

The organisation during the period of focus had 29 directorates (see chapter 5 for more functional details of each directorate) and each one was assigned with a director and process facilitator at any given time. The role of process facilitator was typically assumed by an employee, assigned with the responsibility to maintain, monitor and follow up the processes that involved his/her directorate. In practice, any process facilitator was regarded as a change agent for the corresponding directorate. According to Saunders et al. (2012), this sample of participants can be categorised as a non-probability sample with respect to the population. In this type of sample, it is impossible to answer research questions that require statistical inferences about the characteristics of the population. It may still be possible to generalise from the non-probability sample about the population, but not on statistical grounds (Saunders et al., 2012).

The size of the sample was selected according to: (a) the access capability, which in this case was company-wide; and (b) the relevance to the main research questions. According to Patton (2002), in purely or predominantly qualitative research, the non-probability sample size has a lesser importance, compared to data collection and analysis skills. Saunders et al.

(2012) suggested that when collecting qualitative data, for example using interviews, the researcher should stop further data collection when data saturation is reached. The latter refers to the point, where further data do not provide any significant new information, rather repetition of the existing data. Creswell (2007) argued that for general qualitative research, it should be expected to collect data from about 30 participants or more if there was a requirement for comparison between distinct groups. The sample size in this research project was much higher than that suggested above (56 directors and 30 process facilitators).

The main criterion for sample selection was the availability of the sample, and therefore it can be characterised as a convenience sample (Saunders et al. 2012). Conversely, the selection of the sample was based on the relevance and the importance of the people's views in formulating an emerging theory, which is termed as theoretical sampling (Saunders et al. 2012). The following aspects were evident:

- Data could not be collected from the whole population (the company had more than 3000 employees);
- Detailed and highly credible statistical inferences were out of the scope of this study;
- There was no absolute need for the sample to represent the population as the sample's role was more immediately relevant to the company's change program at this stage;
- Access to the sample was not particularly difficult.

Each directorate had one director and one process facilitator only, at any given time.

Fig. 4. 6 illustrates that the group of directors was larger than that of the process facilitators, because top management of the company changed when there was a new elected government. This has been a typical government practice, particularly for the upper management positions of Greek SOEs (Alexiadis, 1994; Rammata, 2011). Fig. 4. 6 also illustrates the fact that not all of the participants were business process owners (62 process owners and 24 non-process owners).

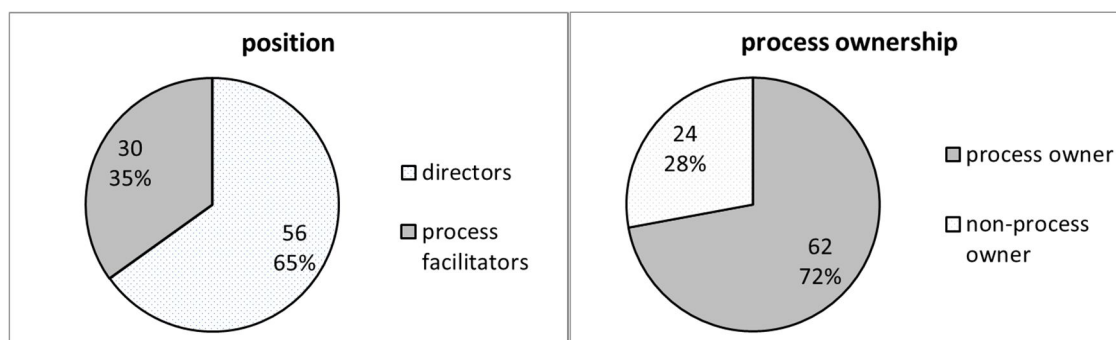


Fig. 4. 6. Sample demographics according to position and business process ownership.

A categorisation of the sample was according to the duration of employment in the organisation in decades. The main reason for this categorisation was to reflect large recruitment intakes that have historically taken place almost every ten years. Fig. 4. 7 and Fig. 4. 8 illustrate that the majority of the employees in the sample were employed for more than 20 years by the organisation. However, the same was not applicable to the duration that they had spent in their job role (as a director or facilitator). The process facilitators were relatively new to their posts, compared to their time of employment in the company. The reason was that this job role was created about 6 years before the completion of the data gathering of this study.

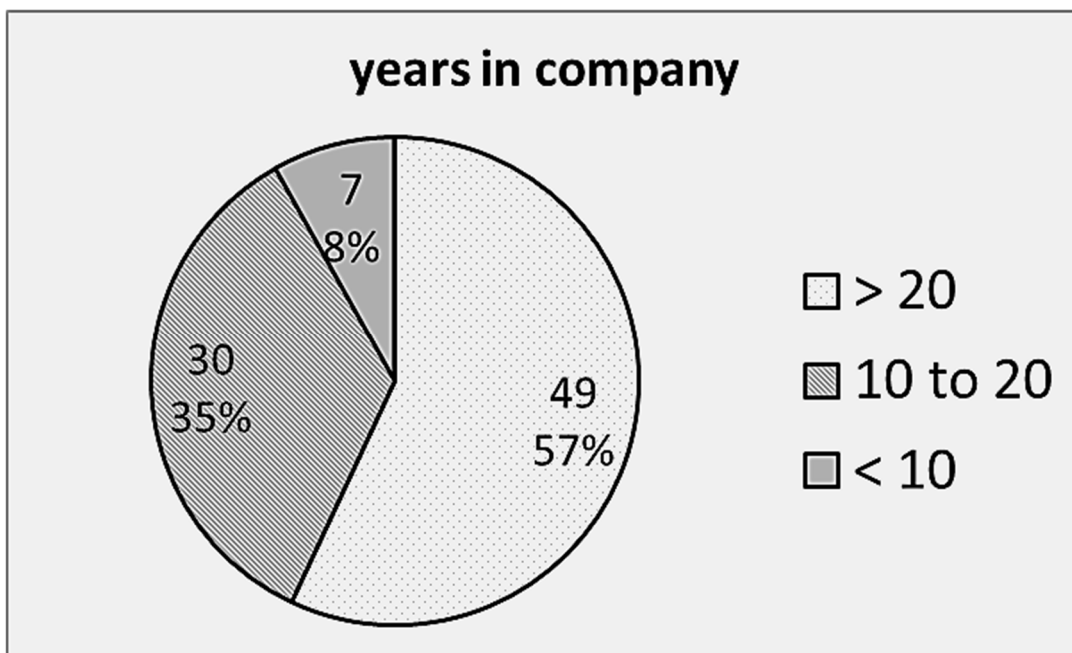


Fig. 4. 7. Sample spread according to time of employment in the organisation (three decades categorisation).

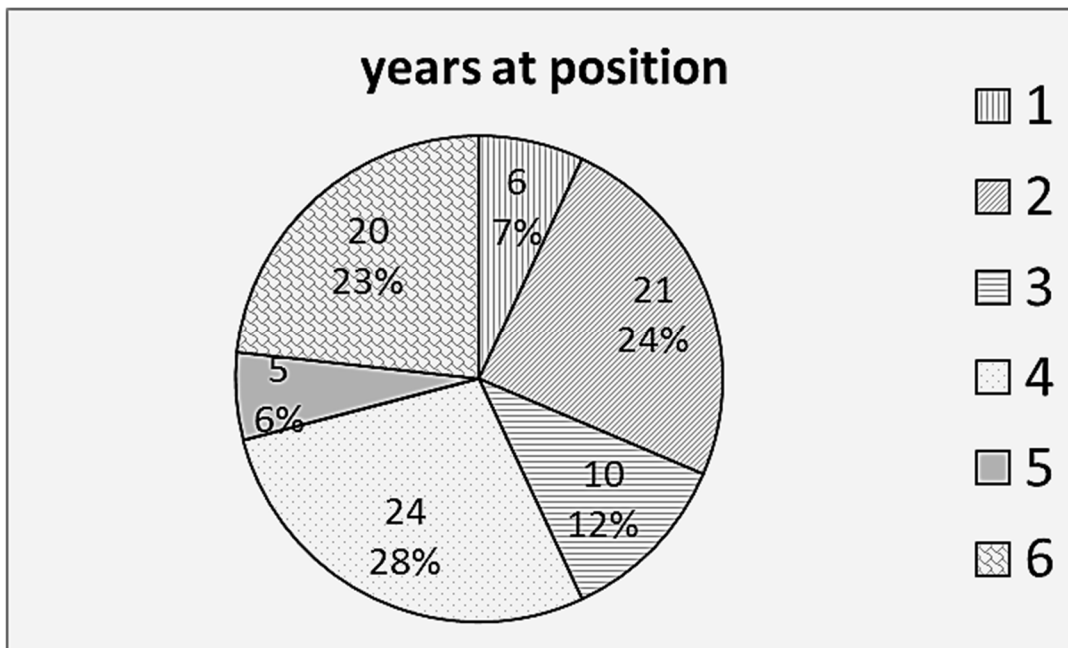


Fig. 4. 8. Sample spread according to time serving at the particular job role (from 1 to 6 years).

4.9 Data Collection

This section provides a detailed discussion about the data collection method that was adopted during this research project. Data collection needs to be specified after the research strategy has been chosen (ethnography), access to the data has been secured, and the sample for data collection has been identified (Saunders et al., 2012). Initially, there is a discussion about the data collection during focus groups discussions and the participant as observer role of the researcher. This type of observer is when the researcher takes part in the group discussions and his role as a researcher is known by the group members (Gill and Johnson, 2010). The second sub-section discusses the data collection method that was implemented during unstructured interviews. The section is completed by discussing the Socratic dialogue technique that was applied in data collection during the research project.

4.9.1 Participant Observation

One of the data collection methods was participant observation. Gill and Johnson (2010) described this type of data collection as the systematic observation, recording, description, analysis and interpretation of people's behaviour while the researcher / observer is part of the

people / organisation being observed. Participant observation took place during focus group discussions, which were used for data collection, particularly during the initial stages of this research project. According to Krueger and Casey (2009), focus groups can be used as group interviews, where the topic of discussion is pre-defined and there is an effort to enable and record discussions between participants. Participants were selected with the criterion of being responsible for designing and altering business processes. In that sense, this reflected probability sample selection, because the participants had to be relevant to the business process in focus.

The author was both the researcher as well as a fellow employee of the sample of people being observed in AERO. Participant observation is qualitative and its emphasis is on discovering the meanings that people attach to their actions (Saunders et al. 2012). Participant observation is a recommended data collection method for ethnographic research, mainly because in a short period of time, a universal view of the organisation and the main issues can be synthesised from the participants' collective views (Stone, 1998; Kawulich, 2005; McKnight, 2007; Biber and Leavy, 2010; Blakely, 2011; Bass, 2014). Participant observation has been implemented for data collection in the study of change in SOEs (Putterman and Dong, 2000; Cheng and Qi, 2002; Lavelle, 2008; Fu and Satish, 2012).

During focus group discussions, the researcher had the role of participant as observer. Gill and Johnson (2010) identified the participant as observer being one form of participant observation, in which the researcher's identity is revealed (overt observation). The researcher was open about the fact that he was conducting research at AERO. The observations were recorded by taking notes of both primary and secondary observations. According to Delbridge and Kirkpatrick (1994) primary observations are recorded by the researcher as notes of what was said, at the time, and secondary observations are the observer's interpretations of what was said. The author concentrated on observing and describing the behaviours of participants and their opinions, as well as observing particular events associated with the outset and the sequence of events. This is what Robson (2011) categorised as descriptive observation. Thus, the main role of the researcher in the focus groups was mostly to observe and record, rather than participate. The participation in the discussions was basically to remind the participants about the topic and the goal of the discussion, to ask questions of clarification, and to ask questions that gave the opportunity to the participants to demonstrate the logic behind their suggestions for change.

A typical setting, during which the author recorded data, while being participant as observer in the focus groups at AERO was when directors and process facilitators gathered to design a business process. Normally, the directors and the process facilitators of two or more

directorates discussed process modelling of a business process that crossed their directorates, in the presence of the researcher. The researcher's participative role was to facilitate the discussion, and there was also the opportunity (and requirement) to intervene, as well as take notes during the discussion. The researcher always tried to avoid convincing any of the participants to follow one or the other course of action. The main concern was to try to understand the common perspective among the participants.

According to Saunders et al. (2012) some of the main advantages of participant observation are:

- There can be a good explanation of what happens and useful data are collected;
- It is very useful for a researcher who works in the same organisation that is in focus (the author was an employee of AERO while conducting the research);
- There is the opportunity to experience the emotions of the other participants.

Conversely, some of the disadvantages include:

- The data collection is very time consuming and the researcher's role is very demanding, including a challenge in accurate data recording;
- There can be role conflicts for the researcher; for example, the author had to continuously make the distinction of colleague versus researcher.

While being participant as observer in the focus group sessions at AERO, the author tried to implement what Skordoulis and Dawson (2007) argued Socrates would do, if he was in a similar organisation. Thus, the researcher tried to position himself in the group discussions in a way that simulated being in an intra-organisational marketplace (internal agora), conducting discussions about what was valuable and what was not, about quality and expertise, about competitive advantage and how to handle change. The researcher also tried to draw into the discussions of that internal agora, participants who were reluctant to participate.

The questions that were asked were similar to the Socratic questions suggested by Paul (1995):

- What do you mean by this?
- How does this relate to our discussion?
- What are you assuming in this case?
- What other information do we need?
- Can anyone see this another way?
- If that happened, what else would happen as a result?
- Does everybody agree that this is the question?

Typically, the author selected and arranged both directors and process facilitators to meet in his presence. The participants that were invited to the focus groups represented their directorate, where the researcher initially thought the business process in focus crossed organisational boundaries. Occasionally, it was concluded that one directorate representation might not be required, or instead, representatives from another directorate were needed. Then in the follow-up focus group meeting, this change was arranged.

Focus group discussions can be very useful in multimethod qualitative research (adopted here), since they provide a universal understanding of each participant's perception, through questions based on reasoning, with the purpose to answer the research question (Pettigrew et al., 1992; Brooker, 2005; Zvonkovic et al., 2005; Terosky et al., 2014).

From all the focus group discussions that took place during this research project, only a limited number of about eight of them were considered to generate data relevant to the development of a theoretical framework for CM in Greek SOEs. For the rest, either the new knowledge was minimal (repetition of concepts), or the topic was too specialised and technical in nature (e.g. discussion about the sequence of activities and tasks for certain business processes). The typical duration of each focus group was about one to two hours. The data collected were either what the participants said about the change efforts in AERO, or the researcher's interpretation of what were the main factors for change (i.e. what the participants were trying to convince each other to do). The data were collected by taking notes, while the discussion was taking place. The main purpose was to collect ideas that could be categorised into context, content, and process of change, in line with the theoretical framework of Pettigrew et al. (1989).

4.9.2 Interviews

Interviews were conducted in Greek with the respondents from the sample (directors, process facilitators), on a one-to-one basis. The interviews served the purpose of data collection, in parallel to the focus group discussion. Research interviews are purposeful conversations between two or more people (Saunders et al., 2012). The interviewer is expected to establish rapport, to ask unambiguous questions, to which the interviewee responds willingly (King, 2004). The interviewer should carefully listen to the responses in order to be able to carry the research forward. During this research project, the interviews were unstructured and in-depth (Fig. 4. 3). According to King (2004), these types of interviews are often referred to as qualitative research interviews.

The unstructured interviews that were conducted during this research project were fairly informal. According to Ghauri and Grønhaug (2010), this type of interview is very suitable for exploring a general set of research themes extensively. The interviewer may exercise relatively significant direction of the discussion, as the respondent provides opinions and views to specific questions (Easterby-Smith et al. 2008). The use of unstructured interviews is suitable for qualitative research and particularly for the ethnographic research strategy, as was the case here (Arnfred, 2015). Interviews have been used by many researchers for the study of change in SOEs (Pettigrew et al., 1989, 1992; Pingle, 1997; Cheng and Qi, 2002; Li, 2002; Morris et al., 2002; Smyth and Qingguo, 2002; Hideki et al., 2011; Mikolajewska, 2014). This research project was essentially an exploratory study. This type of study allows the researcher to explore the links between research themes, as they have been found in the literature, and the way they are perceived in an organisation (Babbie, 2007). In an exploratory study, unstructured interviews can be very helpful to find out what is happening and to evaluate the validity of existing literature (Cooper and Schindler, 2008).

During scientific research, it is imperative to make assumptions that generally underpin understanding of the research questions, the choice of methodology and interpretation of the findings (Crotty, 1998). One of the main assumptions held by the researcher is that the participants were truthful and answered questions honestly to the best of their knowledge, and their opinions were not influenced by the researcher. It is true that when using the Socratic dialogue, the interviewer subconsciously tends to guide the interviewee using logical subsequent questions to reach a certain conclusion (Bolten, 2001). However, the interviewees maintain their freedom of selecting an answer, or even not responding at all.

Each of the unstructured interviews lasted for about one to two hours. At least four interviews were conducted per participant. During the first interview, the focus was on the main research themes of CM. The interviews generated ideas and topics relating to the influence of AGP on CM, and the impact of BPM in implementing change. The subsequent interviews used the topics of discussion from the previous interviews in an effort to explore the content (what), context (why), and process (how) of change, and generate factors that could be used for coding. The approach would be to remind the participant of the concepts that were discussed in the previous interviews and then elaborate from there. Ideas from the literature review were also explored to understand the perspective of the interlocutors, as the interviews progressed. The participants were asked if they agreed or not. Sometimes, the researcher had to explain a bit more about what the findings from the literature review were implying. On many occasions, the interlocutors elaborated on the subject and added their own themes. If a respondent suggested some interrelating factors that were not originally found to

be important during the literature review, then it was evaluated to see if any of these factors could still be categorised as content, context, or process of change. Those factors that could fall in any of those three categories were further discussed with other interviewees for triangulation of research data.

4.9.3 Socratic Dialogue

A major aspect of conducting the focus group discussions and the interviews during this research project was the use of the Socratic method of questioning. The author cannot claim under any circumstances that his questioning skills are comparable to that of Socrates. That would be hubris. In fact, the author's Socratic questioning techniques were quite novice during the initial focus groups and interviews. However, as the research project progressed with time, the researcher's questioning skills were improved and the Socratic method could be implemented to a greater extent, particularly during the interviews. It was somewhat more challenging to implement the Socratic method during the focus group discussions, mainly because the situation was much more dynamic. Even though the topic of discussion was well-defined, and a logical question could initiate dialogue, the contributions from participants were much more difficult to follow, compared to one-to-one interviews. During focus group discussions, the principles of Socratic dialogue were applied less consistently, compared to the unstructured interviews.

According to Simpson (1997), the Socratic Maieutic method of dialogue is highly valued in business / management research, because it focuses more on asking the right questions than providing the right answers. Then, following the Socratic theory that the universal truth is embedded in every human being, when being asked the right questions, it helps them unlock this truth and logically come to the right conclusions. The main objective of trying to implement the Socratic method of questioning in AERO was to infer a logical conclusion from the answers produced by the participants, when the right questions were asked.

A typical example of Socratic dialogue during a focus group discussion at AERO is given below. The researcher had the role of participant as observer (PO) and the various participants (P1, P2, etc.) contributed to the discussion, the topic of which was the improvement of the change process.

- P1: *"The changes at AERO have historically been slow and there is a lot of resistance associated with them."*
- PO: {observation} the *participants* generally talk about change in

AERO being difficult to implement and they have an attitude of disbelief that anything will ever change.

- PO: *"Why is change problematic at AERO?"*
- P2: *"There is no motivation to change anything."*
- PO: *"What kind of motivation do you think we need here?"*
- P2: *"There has to be serious will from the top."*
- PO: *"What do you mean by that?"*
- P2: *"I mean the government, and the top management need to prove they think about these things seriously."*
- PO: *"Does everyone agree with this?"*
- P3: *"It is not only the government. My long experience tells me that the sense of urgency can drive change."*
- P1: *"The Ancient Greeks used to say that even the Gods get convinced to do something when there is a great need for it."*
- PO: {observation} *discussion* between the participants moves towards the value of what the Ancient Greek Philosophers used to say.
- PO: *"So, how can the sense of urgency motivate change?"*
- P3: *"In case of emergency, you tend to keep all communication to the bare minimum and you get straight to the point. This is what we need to apply to get the changes around here faster."*

In this particular extract of the above discussion, the researcher played a more participative role compared to the observation role. However, the opposite generally happened during focus group discussions. In the above example, the researcher tried to find influencing factors of AGP on CM and categorise them into context, content, and process of change, in line with Pettigrew et al. (1989). What is discovered from that discussion is what needs to change is to realise the sense of urgency associated with change (content of change). The main reason for such urgency is believed to be the generation of motivating factors for faster change (context of change). The sense of urgency can trigger enhanced communication that can make the change process more efficient (process of change). A notable element in that discussion was the reference to the Ancient Greeks. In fact, the reference to the Ancient Greeks made by participant P1 was right, since the Ancient Greek Philosopher Pittacus (650BC - 560 BC) talked about the importance of urgency as a change motivator.

Using the Socratic method in focus group interviews can be an excellent method to canvas the thoughts and opinions of participants and enrich common knowledge (Roberts and Ryrie, 2014). The Socratic dialectic approach in focus group discussions can stimulate enthusiasm and interest among the participants, stimulate thinking, and improve decision-making (Roberts and Ryrie, 2014). Socrates has proven that systematic questions and answers among a group can lead to the truth and stimulate participants' involvement (Boghossion, 2006). The person who acts as the facilitator in the Socratic group discussions should motivate, encourage and guide the participants, as well as analyse the content of the discussions (Bowe et al., 2009). Facilitation of such discussions may require demonstration of

inter-relationships between relevant principles and topics and frequent reminding to the participants that the ideas were generated by them and not by the facilitator (Pinsonneault et al., 1999). The role of the facilitator, in such discussions is important, in order to avoid the phenomenon of participants discussing endlessly, without learning anything of substance (Yang, 2008).

The Socratic dialectic method can enhance critical thinking in focus group discussions, as participants have the opportunity to think freely and challenge other participants' ideas with their own (Maiorana, 1991; Paul, 1995; Scordoulis and Dawson, 2007; Yang, 2008). Ennis (1985, p45) defined critical thinking as *'the reasonable, reflective thinking that is focused on deciding what to believe or do.'* The Socratic method can result in increased learning, as participants elaborate, clarify, and justify their personal responses (Yang, 2008).

In general, the Socratic type of dialogue, during the interviews in AERO unfolded through the following steps, based on the methodology of Bolten (2001):

- I. First, a well-defined general question was set by the researcher and was asked to the participant (the question on various occasions could also arise from the participant);
- II. Robust examples from the participant's experience were collected, in which the given theme of discussion was relevant to the question at hand;
- III. A dominant example was selected to be the basis of analysis and argumentations during the dialogue;
- IV. Key statements were recorded as notes, in order to have clarity about the sequence of the dialogue;
- V. When possible, other interviewees were asked the same question following the above method, in order to reach a commonly accepted generality.

To illustrate an example of the applicability of the method, the following is a representative extract from a Socratic type of dialogue at AERO, between the researcher (interviewer - Int) and a process facilitator (respondent – Resp).

- Int: *"How can a successful change from the old system of procedures to the new system of business processes in AERO take place?"*
- Resp: *"First of all, I think everybody has to change their attitude, perhaps all the employees need to be replaced."*
- Int: *"Do you mean that there are no employees here that have the right attitude for change, or are they all bad people beyond hope, and need to be replaced?"*
- Resp: *"I don't want to sound so pessimistic. It is just my frustration, after all these years that I do not see anything happening towards the right direction."*
- Int: *"Do you think the change from procedures to processes will*

help the company go towards the right direction?”

- Resp: *“If it is implemented in the correct way it will, but I am afraid this is another fancy program that will never succeed.”*
- Int: *“Do you think it is impossible to succeed even though other companies have made it succeed?”*
- Resp: *“It can succeed but it is going to be very difficult. At the moment we all see the company simply as money making machine [...] everybody has a similar attitude. Everybody comes here every day to put the minimum effort and get the salary at the end of the month [...] This is what the company does to its customers.”*
- Int: *“How can the company be regarded as something else than just a money generating machine?”*
- Resp: *“We need to have a clear view. The company must be like an institution. It must be something respectable in everyone’s eyes.”*
- Int: *“Have you got any idea how can the company be regarded as a respectable institution?”*
- Resp: *“Again this is very difficult [...] after all these years that we are used to this situation. I don’t want to sound negative again. But how can you make everybody work in the right way, not because they are told to do so, but from their own self-command? [...] and then how do you make the management of the company stick to the application of the change to processes? These things look like impossible to me.”*
- Int: *“I understand. Are management commitment and self-command enough or are there more things that need to happen in order to succeed in the change from procedures to processes?”*

Then, the dialogue would continue on that theme. From the above dialogue, the researcher tried to find influencing factors of BPM on CM and categorise them into context, content, and process of change, in line with Pettigrew et al., (1989). What follows from that discussion is what needs to change is people’s attitudes towards change (content of change). The discussion generated an interrelating factor between CM and BPM. That was the need to perceive the organisation as a prestigious entity. The reason for transforming the organisation into a prestigious institution rather than a mere money generating machine was the anticipation that the society would value the existence of the organisation and value the need of its existence (context of change). Then, the way to make this change (process of change) requires top management commitment and employees’ self-command. It is clear that there are two elements present in this discussion that are paramount for such categorisation, in accordance with the theoretical framework of Pettigrew et al., (1989). First, the respondent drew upon historical aspects of past failures of change efforts, therefore the categorisation is not ahistorical. Second, the discussion made reference to what other companies are doing in implementing BPM, how AERO treats its customers, and the image of the organisation in the society. This reveals links with the organisational environment that are important in the theoretical framework of Pettigrew et al. (1989).

The use of unstructured interviews is a form of social interaction, which can yield useful information, in the same way that the Socratic method of questioning does (Bechhofer and Paterson, 2000). However, it requires both parties involved in the dialogue to have the will to extract this information, simply because people do not proceed through their daily lives by the principles of Socratic questioning that establishes what everyone knows and what the meaning to others is (Bechhofer and Paterson, 2000). Conducting unstructured interviews, on the principles of the Socratic method can help the interviewees take responsibility for their own understanding and create the ability to ask the right questions to get thoughtful answers (Prescott, 2011). The Socratic method, as well as the unstructured interview can simplify complex real life situations and make them easier to understand (Scordoulis and Dawson, 2007; Jayasree, 2014; Kalathaki, 2015). The Socratic approach as an unstructured interviewing method can be catalytic in deep knowledge acquisition, without the need to memorise and reproduce data (Freitas and Filho & Musse, 2013). The use of the Socratic dialogue in unstructured interviews can provide participants with the skill of logical argument (Cole et al., 2015).

This form of questioning can go beyond the objective of conveying information, which is important in unstructured interviews. Raising questions in a Socratic manner can provide the opportunity for the interviewee to actually change his/her usual manner, due to the enhanced learning experience (Coppola et al., 2001). Socrates has shown a way of questioning that draws out the underlying story, without leading the participant into a set answer, pretty much in the same way, unstructured interviews tend to interpret respondents' arguments (Vandermause and Fleming, 2011). Participants in unstructured interviews that are designed according to the Socratic principles may feel that a high value interaction takes place (Porter and St-Jacques, 2014). The use of the Socratic dialogue in unstructured interviews can increase the participants' motivation and their sense of self-confidence to achieve their personal goals (Banfield and Wilkerson, 2014).

The interviewer conducting unstructured interviews that are based on the Socratic method needs to be careful, to prevent the interviewee from limiting the discussion around personal experiences only, without relevance to the topic (Angeli et al., 2003). The initial reaction by participants in such interviews may be negative, because this is not something they may be used to (Cole et al., 2015).

4.9.4 Company records and documents

Documents such as company records are constructed in particular contexts, by particular authors, designed for a particular audience and with particular purposes and consequences (Mason, 2002). Use of data from documents such as company records can be beneficial for triangulation of data (Miller and Alvarado, 2005). Triangulation refers to either using different groups of sources, or using different methods of data gathering (Yin, 2009). Company records were used mostly during the deductive analysis. Those documents were available to the public. They included historical records about the company and the business and economic environment. There was a limitation which documents could be used in the research. The main reason was to avoid releasing sensitive and confidential details about the organisation. The process of reading, understanding and selecting documents in this manner has added a dimension of data generation to the process of data collection (Mason, 2002).

4.9.5 Timeline of data collection

During the author's work at AERO, it was possible to set up some of the interviews and the focus group discussions, in order to collect research data that were related to specific business processes. This means that not all of the research interviews and focus group discussions were associated with particular business processes. Only a subset of research data were collected from business process management related meetings.

Period	2005 to	2007				2008				2009				2010
	2006	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	onwards
Number of research interviews		18	29	41	46	47	42	37	39	29	16			14
Number of focus group discussions used in research			1			2		2	1	1	1			

Table 4. 3. Timeline of collecting data for this research project.

This work was somewhat different from the interviews and the focus group discussions that were particularly setup for research purposes. Data were systematically collected during the research interviews and focus group discussions. There was note taking during the other discussions, but not for the purposes of research. Table 4. 3 shows the timeline of data collection at AERO. The author's employment started in 2005. However, it was not until the beginning of 2007 that systematic data collection for the research project could be conducted. This was mainly because the author concentrated mostly on performing a comprehensive

literature review, between 2005 and 2007. Relevant data were only collected until the second quarter of 2009, while the work for the organisation's BPM efforts continued. Supplementary data were collected in the form of fourteen unstructured interviews between 2012 and 2015. This was the period of the Greek economic crisis, which had a major impact on the operations of the SOEs.

4.10 Qualitative Data Analysis

In the previous section, the discussion concerned the data collection via focus group discussions and unstructured interviews. This section discusses the research methodology for the analysis of the data. Theoretical insights were the result of data analysis. This section examines the qualitative analysis, as a dominant methodology for data analysis throughout the whole research project.

Qualitative data were collected during this research project (Fig. 4. 3). According to Dey (1993), when analysing qualitative data, it should be taken into account that they are usually based on meanings expressed through words. They are also non-standardised and they require classification into categories. Their analysis should normally be carried out through the use of conceptualisation. Bryman (1988) argued that qualitative analysis of data can be valid under the auspices of deductive and inductive approaches; the qualitative analysis can help in identifying new relationships between the themes as they emerge from the data, develop questions and new hypotheses. Coffey and Atkinson (1996) argued that the researcher needs to be clear about how data are analysed; data analysis from induction is less structured and relies on interpretation.

The data from the AERO interviews and focus groups were categorised into themes or codes. The themes were grouped into three categories, in accordance with the theoretical approach to change of Pettigrew et al. (1989). The criteria for categorisation were based on: (a) what needs to change (content of change); (b) why the change is needed (context of change); and (c) how the change can happen (process of change). The factors that emerged from the interviews and the focus group discussions were grouped under the three main themes. These themes were (Fig. 4. 3): (a) CM - Change Management (an overarching theme throughout the whole research project); (b) AGP - Ancient Greek Philosophy (referring to a dominant cultural background in Greek SOEs); and (c) BPM - Business Process Management (the major manifestation of change in modern Greek SOEs). Attention was given to the

interrelations between the factors that linked the above themes. Corbin and Strauss (2008) categorised these types of factors either as concept driven or data driven. The former are normally derived from existing published literature. The latter may either emerge during data analysis or may be actual terms used by the participants. This categorisation was useful, because it could bring forward the absence of a factor when the researcher expected it to be present. Such omissions highlighted digressions from existing theories and fuelled interest for further research and new theory building.

The NVivo 10 software was used to manage, classify, and organise the data. The units of data were either words, phrases from the interviews, or complete paragraphs of interpretations of dialogue. In the NVivo software language, this is called coding. Therefore, to code some source or data is synonymous with to gather, or categorise the data by associating words and phrases with higher level categories. Following data coding into categories (themes or nodes as termed in NVivo), the analysis continued by looking for themes that could be grouped further into 2nd-order factors, in line with the grouping approach of Corley and Gioia (2004) and Gioia et al. (2012), in order to be able to generate a conceptual model for change in the Greek SOEs. This structuring of data was aligned with the approach followed by Pettigrew et al. (1989) for developing the original model of change, for large public sector organisations and SOEs. The relationships between themes were established either directly or indirectly. The direct way was grouping themes that emerged from responses to direct questions about links between those themes (e.g. how can business processes facilitate change in the organisation). The indirect links emerged by finding factors that related to more than one of the research themes. For example, training was a factor that linked AGP with CM and BPM with CM. This method of finding relationships between themes strengthens any theoretical model, mainly because the association of one theme to another may not be sufficient for inferring a causal connection between them (Dey, 1993).

4.11 Critique

Following the research methodology outlined by Saunders et al. (2012), understanding the research philosophy should be at an early stage, as it is a more generalised concept that steers the whole research (see Fig 4.1). Critical realism was embraced in this research (see section 4.2) because it recognises the interactions between organisational structures and processes with the environment (Saunders et al., 2012). This was particularly important as

Pettigrew et al.'s (1989) model of context, content, and process of change forms the underpinning core of the research.

Following the selection of Critical Realism, Ethnography was chosen as the research strategy for this project (see section 4.5) among the possible alternatives (e.g. action research, grounded theory etc.). Ethnography is a very suitable strategy when the researcher works among the people who he/she is studying, and the people that are being studied interact with one another and share the same space with the researcher (Saunders et al., 2012; Yanow, 2012). This was exactly the situation in AERO. Many authors claim that ethnography is aligned with the realist research philosophy (Porter, 1993; Brannan, 2005; Dean et al., 2006; Alvesson and Skoldberg, 2009; Budd, 2012; Oladele et al., 2012; Barron, 2013; Suckley et al., 2013).

Following the selection of ethnographic research strategy, the data were collected by using the Socratic Dialectic Method in participant observation in focus group discussions, and in one-to-one unstructured interviews (see section 4.9.3). Interviews and focus group discussions are suitable for ethnographic research in organisations, mainly because they promote communication and observation that leads to better understanding of different views about a situation (Denzin, 1995; Fine, 1999; Maguire, 2006; Stevens, 2007, Arnfred, 2015). Using the Socratic questioning method in focus groups and interviews can clarify what is valuable and what is not, how to generate quality and distinguish expertise, where the competitive advantage is, and how to handle change (Skordoulis and Dawson 2007). The Socratic Dialectic method is aligned with the critical realism approach because it brings forward universal truth and logical inference of the right conclusions (Fabian, 1990; Simpson, 1997; Boghossion, 2006; Freitas and Filho & Musse, 2013; Cole et al., 2015; Mathe & Mfolwe, 2017). The Socratic method also provides valuable data in ethnographic studies. The researcher can discover the truth by starting from an ethnographic observation and then ask a sequence of logically structured questions, referring back to the original or new observations (Mertz, 2007). McCarthy (1992) viewed ethnography as representations of dialogue, over which the ethnographer retains final control, much as the interviewer in the Socratic dialogues. Ho (2008) argued that the Socratic dialogue can facilitate the experiential, interpretive, and polyphonic processes in ethnography. The Socratic dialectic increases the chances of capturing the reality in ethnographic research as it creates scepticism with respect to knowing about the sensate or humanly known world (Kacperczyk & Konecki, 2006).

4.12 Concluding Remarks of the Chapter

This chapter presented and discussed the research methodology that was adopted during this research project. The researcher's focus during planning and implementing the methodology was to follow scientific research principles. He adopted the realism research philosophy supported by an inductive research approach. The qualitative methodology included multiple data collection methods such as unstructured interviews and focus group discussions. These data collection techniques were implemented during an ethnographic research strategy. The Socratic dialogue was applied both during the interviews and the focus groups. The main reason of choosing the above methodology was to conduct the research project in line with the main theoretical framework of change in SOEs developed by Pettigrew et al. (1989). Furthermore, it was important to align the chosen research methodology with the theoretical approach of CM, AGP, and BPM, analysed in the previous chapters. The main objective was to address the research gaps identified in the academic literature and answer the research questions. The aim was to generate an extension to the theoretical framework of Pettigrew et al. (1989), in order to understand the role of AGP and the impact of BPM on the successful implementation of change in Greek SOEs.

Chapter 5. The AERO SOE

In this chapter, a deductive analysis of the data is conducted using the Pettigrew et al. (1989) model of change, which is shown in Fig. 5. 1 below. The data were collected from interviews and documents generated by the organisation. The fieldwork in this research project was carried out in a large Greek State-Owned Enterprise (given the pseudonym AERO) that is active in the aerospace industry. This chapter provides background information about AERO to explain the operations of a typical Greek SOE.

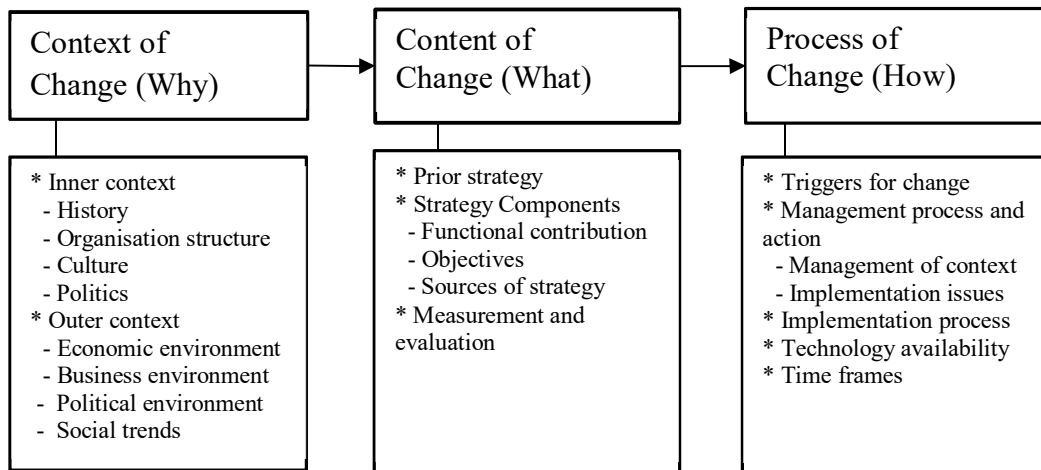


Fig. 5. 1. Context, content, and process in the management of strategic and operational change and competitiveness (Pettigrew et al., 1989).

This chapter contributes to the understanding of the content (what), context (why), and the process (how) of change in AERO, in accordance with Pettigrew et al.'s (1989) theoretical framework. The context refers to the national economic, political, and social environment, as well as the organisational strategy, structure, culture, management and politics of the organisation. The content of change refers to the importance of particular areas of the organisation and its operation throughout the transformation. The process of change concentrates on the implementation of change taking into account historical and continuing struggles for power by individuals and groups.

A brief analysis of the historical factors that led to the current status of the organisation is considered necessary and contributes to the context of change in AERO. A historical research would imply that the current state of the organisation is simply a result of random events. The deductive analysis of the content of change in AERO is conducted by examining some prior competitive strategies and some major strategy components (in accordance with Pettigrew et al., 1989, see Fig. 5. 1).

5.1 Inner Context

This section focuses on the inner context of change in AERO, in accordance with the model of Pettigrew et al. (1989). This includes elements such as the history, the organisational structure, and the internal politics.

“AERO” is a pseudonym that was given to the company to protect its identity. The company agreed to support this research project on the basis that it would be given anonymity. The same applies to internal information, such as employees’ names and production know-how. The company has supported academic research in the past, both locally and internationally. However, research supported by the company has traditionally been mostly of a technical nature. This is the first time that a management research project has been conducted in this company. Thus, for practical purposes, the fictitious name “AERO” was used throughout this thesis. The information that is presented about the company is publicly available through the Internet and marketing publications. People’s identities have been disguised in order to ensure confidentiality.

5.1.1 Historic Perspectives

It is important to provide certain historical and political factors to show how changes and managerial dynamics have shaped the company to its current state. Weick (1995) suggested that managers usually operate as historians who make decisions depending on how good their memories are. Down (2001) argued that historical references to the life of an organisation are useful for interpretation and decision making, without the need to be a historian. The purpose is not to give the most accurate and thorough historical presentation here. Such a scientific analysis would fall outside the scope of this research project. However, all of the discussion provided here is based on a set of unstructured interviews that involved a large number of employees who have been with the company since its foundation. Quotes from Directors (D) and Process facilitators (PF) have been included and company records have been referred to in this section.

The main purpose of the organisation is typical of Greek SOEs. AERO is designed to provide a public service: to support the Greek aerospace defence sector. Recently, emphasis has been on providing products and services to third parties (i.e. outside the Greek Air Force).

AERO was established in a remote area about 50km away from the capital in the 1970s. These facilities remain in the same location today, with the addition of head offices in the

capital's city centre. The whole construction project was undertaken by a US company. AERO's original personnel were a 30-strong team of top American executive managers (AERO internal document, 2000). These American managers moved to Greece, in order to supervise the company's creation from its foundations. As the building construction was underway, about 300 local people were employed. They came from a nearby privately-owned factory that was manufacturing aircraft components.

"When I quit my previous job and started here, I felt like I was moving to a much more advanced place of work" (PF04).

Most of the first employees of AERO were offered about twice their previous salary, plus many benefits, which was unheard of at that time, especially for non-top executive employees.

I still remember when I heard about the salary, I thought they were joking. Then, I realised there were benefits on top of that. It was just unbelievable" (PF02).

These benefits included private pension and health care schemes, food, and compensation for transportation to and from home.

The construction of buildings took about one year. The first building to be completed was that of general administration (AERO internal document, 2000). During the first years, the personnel that were commuting from the capital city used their own cars. Travel costs were reimbursed, and those who did not have cars were being offered a lift by their colleagues. This is quite significant to mention, since the transportation issue has changed so much nowadays, with more than 70 hired buses making the same trip daily.

"I was in the committee that bought the first machines. Most of them were not really cutting edge technology, but they had never been used before. However, the tools were both brand new and of the latest technology" (D06).

The target was to employ about 3000 people.

"There were no locals with experience on the subject and this created a major problem" (D47).

The immediate solution was to employ non-specialist personnel and look for experienced workers in foreign countries. The top management was from the US and all of the documentation about the operational procedures was in the English language (AERO internal document, 2000). The Greek language was a barrier for any potential foreigners who wanted to settle down in the country, even if the official language inside the company was English. The language barrier was overcome by employing Greeks who had emigrated to

other countries during the previous decade. The 1960s was an era during which many Greeks emigrated out to the USA, Canada, Australia and Germany (Haston, 2011). Many of those emigrants had already found jobs in the aerospace industries in those countries.

“I am one of the many Greeks who left an aerospace job from the USA to come to work in AERO. Most of us were not in high positions in those companies, but we were definitely much more advanced than the locals on this subject” (PF03).

Many of the Greek emigrants had a keen desire to return to their mother land, and a considerable number of emigrants returned to get jobs in AERO.

“It was great that we had the chance to get a good job in our own country. Coming back to the homeland is embedded in the Greek psyche” (PF03).

The typical recruitment procedure involved calling candidates to the head office in the capital’s city centre. Then almost immediately, the candidates were transported to the company’s main site 50km away from the capital. The candidates were segregated into technical and non-technical applicants (blue and white collar respectively). The interview procedure involved verifying the applicants’ qualifications, and the completion of a 100-long multiple-choice questionnaire (AERO internal document, 2000). This was reportedly as an extremely easy to answer questionnaire, designed to check the applicants’ technical or general perception.

“That introductory test was really very easy” (PF03). “The introductory test was designed to be easy to satisfy the typical requirements from the state. AERO was desperate for specialist personnel that were not available. Regardless of people’s technical expertise, there was a lot of training later” (D33).

There was also an English language test for each candidate.

“I remember taking the English language test in a room with many others. The invigilators were very lenient with many people whose English was only basic. There was a high demand for technicians who spoke English, and there were not many around” (PF04).

English language has always played a major role in the operation of AERO, because all the manuals for the aircraft and engine maintenance are in English. The last stage of the early recruitment procedure was testing of practical skills. For a blue-collar worker, this would require the creation of a relatively simple component on a tooling machine, or something similar that would prove basic knowledge in the field (AERO internal document, 2000). Following that, the first line supervisor gave approval to continue with a six-month temporary

employment. Then there was an induction week, during which, the employees would attend various presentations about the nature of the work and a tour around the various units. After the six-month trial period, a permanent employment contract was offered to the employee (AERO internal document, 2000).

During the course of this research, the number of employees at AERO has remained constant (i.e. around 3000 people). The location and the language requirements have remained the same.

5.1.2 Organisation Structure

AERO S.A. has a typical hierarchical, top-down management structure with compartmentalised functions, which is characteristic of the state-owned organisations (Greek Law 3429, Papoulias, 2005). There is a limited number of project managers who operate laterally within a matrix structure. These managers are responsible for the operation of certain major product and service lines that cross the functional boundaries of the organisation. The company comprises twenty nine directorates which are grouped under seven general directorates. There is a Chief Executive Officer (CEO) assigned to direct those seven general directorates; in turn, the CEO has to report to the board of directors. The board of directors is typically appointed by the government and is led by a chairman. The CEO has a dual role; he is an official member of the board of directors and is also appointed directly by the government. Only two out of the fifteen board members are employee representatives who are elected directly by the employees, every two years. Each one of the twenty nine directorates comprises a number of departments, which in turn are divided into sections. The hierarchical structure within AERO is briefly outlined in Fig. 5. 2.

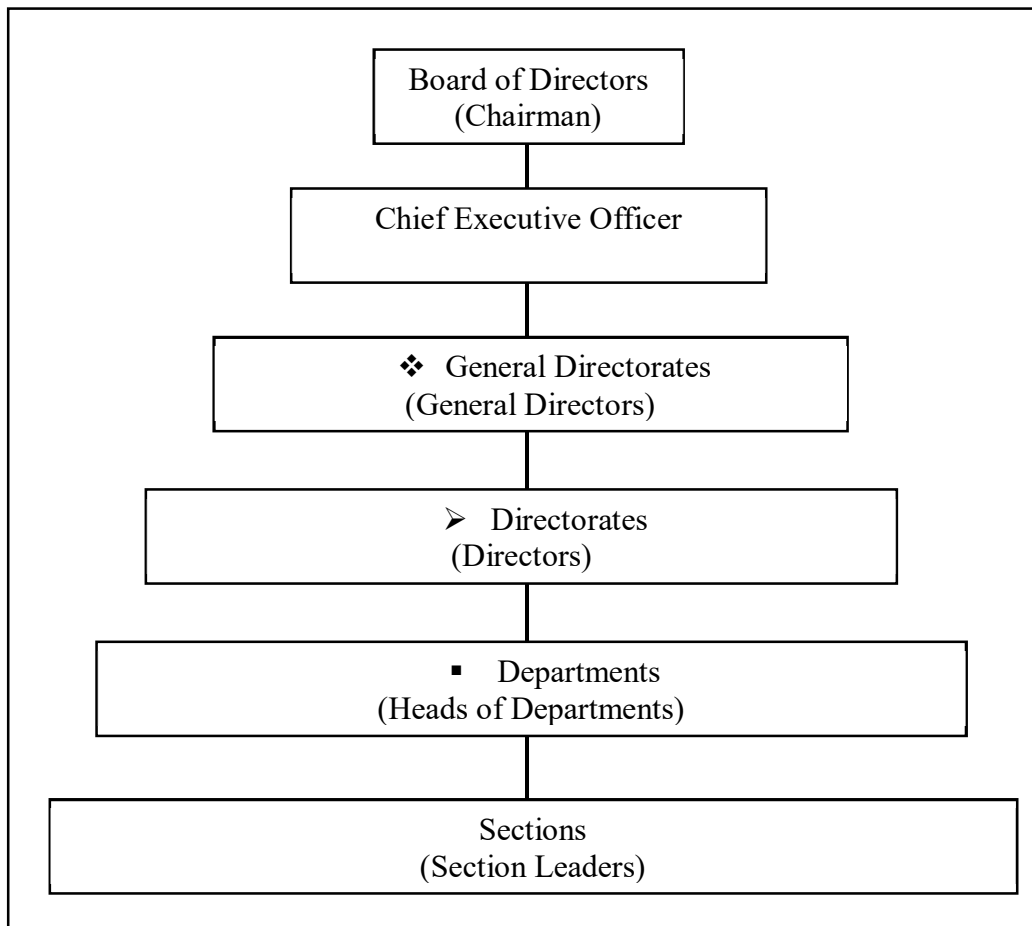


Fig. 5. 2. Hierarchical structure in AERO S.A.

An outline of the structure of AERO is explained below. This chapter provides a brief description of the responsibilities of the general directorates.

- ❖ Commercial General Directorate; its main role is to handle the commercial aspects of the company and it contains four directorates:
 - Marketing & Sales Directorate
 - Contracts Directorate;
 - Project Management Directorate;
 - International Relations Directorate.

- ❖ Production Plants General Directorate; this is the general directorate that employs the majority of employees and is mainly about the so called ‘blue collar’ (i.e. technical or manual work) part of the company. It contains six directorates:
 - Aircraft Plant Directorate;
 - Engines Plant Directorate;

- Electronics Plant Directorate;
 - Manufacturing Plant Directorate;
 - Quality Control Directorate;
 - Facilities Maintenance Directorate.
- ❖ Engineering Research & Technology General Directorate; this is the part of the company that undertakes product-specific Research and Development (R&D) projects of a technological nature. The research work is carried out in cooperation with R&D departments of foreign organisations (industrial partners), and occasionally with the state's technical Universities. It contains three directorates:
- Aircraft Systems Strategy & Development Directorate;
 - Electronic Systems Strategy & Development Directorate;
 - Engineering Directorate.
- ❖ Support Operations General Directorate; this is the largest administrative part of the company employing most of the so called 'white collar' personnel. It monitors a wide variety of corporate activities and is typically associated with bureaucratic functions. Lately, there has been an effort to simplify the internal procedures of this part of the company and this research project has particularly focused on this purpose. This general directorate contains four directorates:
- Human Resources Directorate;
 - Training Directorate;
 - Supply Chain Directorate;
 - Informatics Directorate.
- ❖ Strategic Planning & Development General Directorate; this is responsible for formulating the corporate strategy for the company, but also acts as an internal business consulting unit, making recommendations to the CEO. The creation of this general directorate is the result of a recent state's initiative to reform government-funded organisations and turn them into self-sufficient commercial entities. The creation of such a unit is therefore reinforced by corresponding legislation (Greek Law 3429, Papoulias, 2005). The initial

concept was to focus on business process re-engineering and lean production (internally), as well as the creation of new and strengthening existing commercial agreements (externally). However, due to the nature of the business, emphasis is also given to new ventures, such as civil aviation, satellite systems and composite materials. This general directorate comprises five directorates:

- Civil Aviation Directorate;
- Satellite Systems & Applications Directorate;
- Composite Material Manufacturing & Development Directorate;
- Planning & Organisation Directorate;
- Business Cooperation Directorate.

❖ Finance General Directorate; this is responsible for keeping track of and carrying out all the economic transactions for the company. It contains only one directorate:

- Finance Directorate.

❖ Staff Services General Directorate; this is the part of the company that provides support services that ensure health, safety and security of the personnel. It is the public face of the company, as well as being responsible for quality assurance. It contains three directorates:

- Public Relations and Press Directorate;
- Quality Assurance Directorate;
- Flight, Ground Safety Accident Prevention Directorate.

The researcher started his employment in AERO in February 2005 as a Corporate Research Specialist in the Organisation Department under the General Directorate of Strategic Planning and Development. His role has been to participate in the initiative to introduce a Business Process Management (BPM) system using Information Technology. He has contributed in the transformation of the old system of company procedures into processes. He has also been an essential part of a group of people that act as change agents.

Recently, the company's top management has recognised the value of developing lean processes and the benefits to be derived from the application of the Balanced Scorecard (BSC). Lean processes refer to producing output with less work, but without loss in value (Womack et al., 2006). The BSC is a strategy performance management tool that can be used

by managers to keep track of the execution of activities, and to monitor the consequences arising from these actions (Kaplan and Norton, 1996). The implementation in AERO focused initially on the support processes (e.g. financial, human resources, commercial, procurement, training, internal auditing etc.) in order to eliminate bureaucracy.

5.1.3 Internal Politics

Since the early years of AERO's establishment, the strong role of internal politics has contributed to the current state of the organisation. Successive Greek governments have continuously intervened in the management of the company. In the late 1970s, the government had decided that AERO should have about 3000 employees, and recruitment was still on the way towards that goal. The conservative government had established a certificate of political orientation until the early 80s (Karyfillis, 2008). To some extent, that was supposed to be proof of being a non-communist. This was very widely required in order to have any sort of interaction with the government, as well as to get a job in the private sector. This particular certificate was also requested by AERO, before any applicant for a job was considered for an interview.

“During those early days, nobody was considered for a job [in AERO], unless they had this certificate” (PF02).

After almost the first 1000 people had been employed by AERO in the early 1980s, unexpectedly, a noticeable number of redundancies started to take place. Surprisingly enough, intensive employee intake continued to occur in parallel to those redundancies.

“There was a time when hundreds of new employees were hired, while hundreds were fired in the same time” (D06).

The reason for this phenomenon was that the management was trying to remove employees who were trying to establish a workers' union inside the company. The reasoning behind the management's effort to resist the creation of a union was that at that time, the working conditions, salaries, and various benefits that the employees were enjoying, were simply unsurpassed, anywhere else in the country. Therefore, management believed that there was no reason for employees to create a union in that case.

“If you were considering joining any trade union at the time, you couldn't stay here for long” (PF02).

For example, despite the requirement to pass an English language test in order to be

employed in those early years, English was still formally taught after the permanent employment contract was signed. The company was paying full salaries to people taking an intensive course in English for 8 hours per day, for 6 months (AERO internal document, 2000). Offices were rented in the capital city centre for that purpose. All of the benefits, including compensation for transportation and food continued to take place.

“This was unheard of for any other public organisation in the country, even for large multinational or local privately-owned companies at the time” (PF04).

Thus, the early management of AERO was committed to prove that the formation of a workers’ union was unnecessary.

Nevertheless, the creation of unions for all organisations around the country was being heavily promoted at that time by the opposition; the socialist political party PASOK (Resvanis, 2012). Following the Papandreou government election in the 80s, a trade union was established in AERO.

“That was the first time in the history of AERO that somebody could join the trade union without feeling threatened of losing their job” (PF02). “The employees who were running for the company’s union leadership were seeking votes from their colleagues by openly declaring that they were representing the one or the other political party’s ideologies” (PF03).

The country’s political system has been so influential since then, that even nowadays, the company’s employees’ union is based on political divisions.

Since 1994, the criteria for recruitment of personnel in the public sector and the Greek SOEs have been dictated by the Greek State Law 2190 (Karamanlis, 1994). This law allocates credits for the candidates’ educational qualifications, work experience, foreign languages, family status, etc. Greek SOEs, are obliged to advertise positions on offer, and the candidates with the highest credit scores get selected for the jobs. The aim of this law was to remove the preferential selection of individuals to work in the public sector and the Greek SOEs, according to their political affiliations.

During most of the first decade of the company’s existence, the conservative government promoted an organisational attitude that was very authoritarian and with pressure on the employees to perform to their maximum potential.

“The Karamanlis capitalist government was in line with the management that wanted very hard work. The whole company was working as if it was an extension of the army” (D33). “Managers were behaving like army sergeants back then” (PF04).

In the early 1980s, the Papandreou Socialist Party won the election. Papandreou became

prime minister, while Karamanlis became the country's president. It was a period, during which, the country's president would strongly oppose the decisions of the socialist government (Diamantopoulos, 1997). However, the position of the country's president has always been ceremonial, with most of the executive power residing with the prime minister and his party that had the majority vote in the parliament (Diamantopoulos, 1997). All of the employees that were made redundant during the first years of AERO's existence gained the right to be employed again, after the government's direct political intervention (AERO internal document, 2000). Despite those people having been made redundant for several years, most re-assumed their positions in the company, as if they had never left. Additionally, all of the 30 top managers who were American were made redundant and they returned home (AERO internal document, 2000). Rotating AERO's managers, even at the lowest levels, has been repeated, many times when the government changed.

"I've been here since AERO's creation. I cannot remember a change in government that was not associated with changes in the company's managers and directors" (D16).

In fact, this phenomenon has also taken place, even when ministers were assigned to different cabinet positions, within the same government.

"The fact that people in [AERO's] management change even when the ministers change is something we have learned well all these years" (D33).

However, the government's political intervention in AERO's operation has been reportedly less intense during the last decade.

"In the last ten years or so, we didn't have so many changes in managers following elections, compared to the old days" (PF03).

The political influence on Greek SOEs' operations was very strong during the 1980's and the 1990's (Adam, 2005). For example, selecting raw material and equipment suppliers or other external service providers to the company was based on their political support for the governing party.

"I have served in purchase committees both with the socialist and capitalist governments. In the old days, very often we've had bidding competitions for a supplier overridden by an order from above [the government]. We knew that the winner was simply not openly supporting the governing party. These situations have changed for the better nowadays, but we are still not perfect" (D06).

In most cases, that attitude has resulted in very low quality of incoming services or goods. In a very high quality-sensitive sector such as the aerospace industry, second-best

materials are not acceptable to the customers, or by the manufacturing standards themselves. Thus, very often, material from a politically friendly supplier would be purchased. It would then be deemed obsolete according to the quality standards, and the appropriate material would be purchased again from the correct source.

“I’ve worked in many departments in the past, where we had to place an order for consumables twice, because they did not satisfy the quality standards the first time. Why did we [AERO] buy low quality stuff the first time round? Don’t ask me ask the politicians” (D33).

These policies increased the cost of operation of AERO. If the state is the owner, as well as almost the only client of an SOE, then the organisation is a cost to the country that has to be covered by taxation (Adam, 2005). This legacy has led to recent government initiatives to try and transform AERO into a more commercially adept organisation by attracting customers, other than the state’s air force.

“AERO has never been under more pressure by the government to develop business with organisations other than the Hellenic Air Force. We are succeeding, but we still have a long road in front of us” (D02).

The white-collar employees have always been perceived as slightly more privileged in AERO compared to the blue-collar employees. Normally, office staff has had a better working environment in more luxurious air-conditioned premises, without the physical burden that occurs in the technical aspect of the work. Furthermore, white collar employees have always had a more prestigious working environment, due to co-existence and daily interaction with the highly educated engineers and scientists that also occupy the office spaces. It has, therefore, always been the aim of many blue-collar personnel to get a job in the offices. On many occasions, there has been external political intervention in the company’s allocation of human resources. Many times, a phone call from a member of parliament’s political office would place a request to the top management for a worker’s transfer from the workshop to the offices.

“There was a time that such requests were so many that one of the major tasks of a secretary in the CEO’s office was tracking the fulfilment of those requests” (D16).

Usually, the workers who succeeded with such internal transfer requests, through the intervening political party members, would be replaced by other workers from the shop floor when a change of government occurred. In this way, the administrative personnel were kept to a reasonable degree constant, as the previously transferred blue collar personnel would return to assume their previous posts. The researcher has only uncovered one single case of a

woman, who had an office job, and willingly transferred to a job of a technical nature. In this particular case, she was initially recruited as a secretary. Following her request and some political intervention, she was transferred to a lab that tested the chemical quality of aviation fuels and oils to be used by the aircraft.

“The political interventions, particularly for internal transfers in the past have caused inflexibility in managerial decisions” (D47).

Such practices have constrained management’s ability to increase efficiency.

Moreover, various new departments and sections were created when certain general directors or departmental directors were replaced by the changing governments (particularly in the 1980s and 1990s). It was considered a devaluation of human dignity to have really capable executive staff demoted down in the organisational hierarchy, simply because a new political party came to power. On certain occasions, individuals took their cases to court, in order to retain their previous salary and privileges. In almost every case, the employees won.

“Managers who either threatened or actually took the company to court maintained their income” (D02).

According to Alexiadis (1994), the law protects public sector officials against reduction or removal of their basic income due to transfers. There are no such strict protective measures for managers of the Greek SOEs, yet in practice, governments have treated them equivalently (Papazoglou, 2010).

5.1.4 Culture

With the socialist government of the early 1980’s in place, the sense of job security was enhanced in Greek SOEs, since the term permanent employment was being taken literally (Alexiadis, 1994). This is a very important cultural aspect in the operation of the company that has lasted for decades. This common attitude formed over time has even today affected the performance of the organisation.

“What we knew back then was that Papandreou gave us permanent employment in AERO. Nobody could fire us no matter what” (PF02).

Therefore, in the whole Greek public sector and the state-owned organisations since then, it has been extremely difficult and rare to make employees redundant, whether they perform their duties effectively or not (Salteris, 2013). Permanent employment in the Greek public sector was adopted, in order to remedy a previous political phenomenon of massive

redundancies every time the government changed (Vougioukas & Megaridis, 1993; Alexiadis, 1994).

“The sense of absolute job security that we started experiencing in the 80s [in AERO] has influenced many employees’ behaviour. I remember particularly after the formation of the trade union many people felt so protected that sometimes they even refused to perform their duties or were absent from work without any justification” (D48).

This situation is believed to be less intense in AERO, compared to other Greek SOEs, mainly due to two reasons. The first is that the salary, benefits and working conditions have always been at the top level, compared to the rest of the public sector, and second, the number of employees has remained more or less the same since the 1980s.

“I was working in the ministry of transportation before being transferred to AERO. The rebellious attitude of employees there [in the ministry] was much more evident than what I have ever experienced in AERO. My income has been much better here. The directorate of the ministry that I used to work for doubled in personnel in the 90s, and the situation went out of control. People are much more disciplined in AERO, even though we enjoy practically the same job security as in the public sector” (PF21).

The permanent employment contracts in AERO and the other Greek SOEs are not legally the same as the permanent employment contracts in the public sector (Alexiadis, 1994). The employment contracts in Greek SOEs can have indefinite duration, while the employment contracts in the public sector can truly be permanent (Papathanasiou, 1985, Kaidatzis, 2005). This means that a Greek SOE may actually terminate an indefinite employment contract if an employee’s performance is low, for example. However, the consecutive governments since the 1980s have treated employment in Greek SOEs as permanent, unless clearly declared and signed as temporary employment contracts (Papazoglou, 2010).

5.2 Outer Context

This section concentrates on the outer context such as the business and the political environment where the company has operated and currently operates.

5.2.1 Business Environment

AERO S.A. was established in the mid-1970s and is today one of the major state-owned defence companies in the Mediterranean area, with an established reputation in the international market as a reliable service provider and business partner. The company's average yearly net income during the period of data collection and analysis for this research project was about €250 million. AERO employs many thousands of employees and the main areas of activity are the following:

- Military aircraft and engine maintenance, repair, overhaul;
- Development, design, manufacturing of electronic, telecommunication products, Satellite and weapon systems;
- Aero-structures manufacturing and assembly;
- Technical training in a wide range of defence and aerospace industry skills;
- Repair and Calibration of precision measuring devices and general production equipment.

The business environment where AERO is active, is dominated by procedures for aerospace technology that are usually strictly prescribed to maintain flight safety. This means that there is literally no room for quality mistakes. Individual workers responsible for any deviation from the end-products' expected performance can be traced. In that respect, products and services to AERO's external clients have traditionally received great reviews. However, the high level of technical conformance to requirements has not been matched by the internal effectiveness and efficiency of the administrative procedures.

"Our quality control record has always been comparable and even better than that of the largest players in the aerospace industry. What we need to improve is administration and support functions in AERO. This will make us competitive in profit too" (D48).

5.2.2 Political Environment

AERO S.A. was one of the first organisations in the country with such an advanced technological framework. Since its establishment, it has been solely owned by the state. It has been heavily influenced by the political and economic policies in the country, which is typical for Greek SOEs (Papazoglou, 2010).

The concept of creating AERO was proposed by the first elected government in the 1970s. That was immediately after the military coup of the early 1970s collapsed and democracy was restored in the country (Kaidatzis, 2005). That first elected government decided to invest in its defence program, by focusing on the military air force. This has been a major defence investment since then, mainly due to its effectiveness against an on-going (perceived) threat from an eastern neighbouring country (AERO internal document, 2000). The operability of the military air force, especially in the case of conflict with a foreign threat, created a need for a maintenance and repair unit for the military aircraft and engines.

“Even though the country had no technical expertise in aviation maintenance at the time, this service could not be allowed to be outsourced to another country” (D02).

The main reason was that in case of conflict, the enemy could strike a deal with the country that undertook the military air force maintenance, and discontinue providing the service amid on-going hostilities. As a consequence, all of the military aircraft would shortly become inoperable in the middle of the battle.

“So, it was critical, to have the military aircraft maintenance operating self-sufficiently, under the control of the state” (D02).

The first elected government, after democracy was restored in the 70s was inclined towards a capitalist free market ideology, and one of the main allies of the country at that period was the USA (Hanson, 2011). Just before the collapse of military rule in Greece, the US Vice President at that time, visited the country and stayed for 3 days engaging in discussions about creating an industrial establishment. The negotiations mainly took place between the state, a state-owned bank and a US aerospace corporation (AERO internal document, 2000).

“Since day 1 of AERO’s conception, everything was according to US specifications, in terms of technology as well as management” (D16).

AERO’s primary purpose was initially the repair of the state’s military aircraft.

“Even from the very first years of operation, there was the intention to extend the functionality of the company towards the civil aviation too”

(D47).

AERO's major client is the Greek government through the Ministry of Defence. Since the mid-1990s, successive governments have tried to reform the company by encouraging a shift of activities, from purely military to commercial. Market competitiveness for Greek SOEs has been on the agenda of Greek governments in the last decades (Salteris, 2013; Mylonas and Joumard, 1999). During the period of this research project, about 80 per cent of AERO's work load and income were generated from maintenance, repair and overhaul of the state's military aircraft and aviation engines. The remaining income and workload came from the rest of the above-mentioned activities. These activities are mainly linked to non-state international customers. There are typically two types of business functions. The first one is direct sales of services to the clients, while the second one is more complex as it involves the establishment of a so called 'Mutual Benefits Agreement'. According to the latter, AERO may, for example, provide the maintenance for aviation engines of a foreign organisation for a certain period of time, while the foreign organisation supplies an agreed number of helicopters or other aircraft to AERO's owner, which is the state.

5.3 Strategic Content of Change at AERO

This section focuses on the content of change in AERO, in accordance with the model of Pettigrew et al. (1989). The content of change refers to the importance of particular areas of the organisation and its operation throughout the transformation. The model views the transformation of the organisation by assuming that change is strategically adopted by management as a way forward. Typically, historical and environmental aspects of the competitive strategy are considered. Then, functional contributions to the strategy of change are analysed.

5.3.1 Prior Competitive Strategy

Pettigrew et al (1989) identified the early organisational competitive strategy (including the periods of reform efforts) to be an important historical aspect of change. The mission of AERO since it was established has been the maintenance and repair of the Hellenic Air Force

aircraft (AERO, 2015). This primary directive has remained almost unchanged over the years. The main strategy for keeping the planes of the HAF in a state of readiness has traditionally concentrated on high quality work and short delivery times (AERO, 2015). The quality of workmanship and the stringent control of technical procedures has established AERO as a world renowned organisation for complying with the strictest international aerospace standards and regulations. Long-term and uninterrupted international quality certification by ISO, NADCAP, and EASA are but a few of AERO's achievements in the area of technical quality control.

“We have always concentrated on technical detail [since the beginning of AERO]. This has not changed and will never change. It is our main competitive advantage” (D51).

Making sure that the HAF aircraft are combat ready has always been one of the highest priorities for AERO. Scheduled maintenance and random repairs have always created pressure to render the aircraft ready for duty, in the minimum time possible. The same approach has been adopted for non-HAF clients too. However, in the last decade or so, concentrating on efficient scheduling for delivering to clients outside of the Greek government has been at the centre of attention.

“Delivering on time or ahead of time to the [Greek] government was always top priority. We got used to this and we were applying it to the other clients. At some point we realised that there is no need to be in a state of panic for all cases. Good planning is important” (PF02).

As a consequence of the above strategy, on many occasions, high costs and overspends have occurred. The financial deficits of AERO have always been tolerated or absorbed by previous Greek governments, as has been the case for most of the Greek SOEs (Papazoglou, 2010). Ensuring profitability has indeed come second to providing products and services of high quality and on time to the client.

“We have always cared for quality and avoiding delays. The CEOs don't care about making a loss. All [Greek SOEs] have losses [...] it doesn't matter” (D09).

In recent years, the top management of AERO has concentrated its efforts on making the company profitable. Renegotiation of the government contracts, more aggressive marketing to non-government clients, and reduction of personnel have been the main strategic moves towards this goal (AERO, 2015). The government has traditionally been regarded as a definite source of income to AERO.

“The Ministry [of Defence] has given life to [AERO] for many years” (PF03).

For reasons of national security, the previous Greek governments have chosen not to outsource the maintenance of HAF aircraft to a private organisation that cannot potentially be controlled by the state.

“It is important to control the ownership of [AERO] to avoid any bad surprises in case of a war” (D02).

However, the recent financial restrictions imposed on the country have forced the Greek government to cut down on defence expenditure in general (Mavropanou, 2014).

To counter balance the reduced income from the government, AERO has been under pressure from the government to generate income from other national and international clients. This move has raised the significance of competition.

“The main effort now, is to sign contracts for business with international companies. We need to be able to compete. We can do that, but we need to play the marketing game” (D02).

The marketing strategy of AERO for non-Greek government clients has remained almost unchanged since the 1980s. This strategy concentrated on communicating that AERO can provide high quality products and services, on time, and with competitive costs (AERO, 2000). The salaries in AERO have traditionally been considered lower than those of other major international competitors that can provide similar quality output.

“Our salaries were very good compared to [what] others [were paid in Greece]. They were still lower than the salaries of our competitors in the West” (PF01).

The lower wages helped to drive prices down and thus create a competitive advantage for AERO since the 1980s (AERO, 2000). However, the security provided by the Greek government did not motivate AERO to market itself internationally.

“Marketing has always relied on the government to make deals with other countries. Now, we go out there and market ourselves” (D31).

5.3.2 Strategy Components

Pettigrew et al (1989) considered important elements of the organisational strategy for change, such as the contribution from each corporate function. This section expands on the above mentioned elements of the organisational strategy for change. The directorates of marketing and sales, informatics, and human resources have played a key role in the change

efforts of AERO. The functional contributions are recognised and appreciated in the company's management manual. They have remained unchanged since the year 2000.

- **Functional contribution to change**

The main contributing functions of marketing and sales to the change efforts in AERO can be considered to be the following:

- Product and service pricing: this refers to determining and negotiating prices for products and services for all types of clients. The pricing for the Greek government contracts are based on a low profit margin. The contracts for all other clients are influenced by the negotiations between foreign governments and the state. AERO's management suggests prices to the Greek government and they are finalised after discussions with the Ministry of Defence or the Ministry of Finance;
- Product and service distribution: this is about ensuring that products and services are made available to the clients. Products are distributed to clients directly from the main site of AERO. Services may include repairs and maintenance that take place on the main site of AERO. Particularly, in the case of aircraft maintenance and upgrade, services (labour) and products (components) are delivered on the aircraft, at the main site of AERO. Then the aircraft can fly directly to the premises of the clients. Therefore, the service and product distribution is relatively simple. The only service that involves delivering a service to the client's premises is training and technical consultancy;
- Customer satisfaction: this refers to the efforts of AERO to provide products and services to clients that meet or exceed their requirements. The clients are very often involved in the design as well as the execution stages of projects in order to ensure quality standards.

"For non[-Greek] government contracts, [AERO] can go into a cooperative design stage with the client for four to six years before execution" (PF19).

The Informatics Directorate is responsible for selection, operation and maintenance of all of the Information Systems (IS) in AERO. Change is closely related to IS in the organisation, particularly through the determination of the sequence of activity completion.

"If you have a process or an activity that requires other processes to complete before it starts, it is alright. But you have to be careful not to overdo it with all the parallelisation. You can easily lose track of the situation and then you get all the inputs and outputs into a big mess" (PF27).

The researcher as a change agent was actively involved in discussions that helped to clarify the role of the Informatics Directorate. Originally, there was a widely accepted view that the Informatics Directorate's role was to dictate the way operations were executed in the company based on the available types of information systems (including software and hardware). This belief changed so that the Informatics Directorate was viewed as a solutions provider for the company. This meant that each function had to define its specific IT requirements in order to operate efficiently and achieve its objectives.

The Human Resources Directorate has a key role in the management of change in AERO. The number of employees has remained almost constant since the 1980s until 2010 (AERO, 2015). The recent economic crisis in Greece forced management to find ways to cut costs. One of those ways was the reduction of personnel. No collective redundancies could be actualised in Greek SOEs, since the permanent employment contracts were protected by Greek legislation (Alexiadis, 1994). Top management in AERO decided to reduce permanent personnel by not filling any vacancies that occurred due to retirements and resignations with people from outside the company. In the last six years, an effort has been underway to fill critical vacancies by retraining and reallocating personnel internally. If this was not possible, an attempt was made to outsource the vacancies to companies that hire temporary personnel. The main objective was to make sure that the number of permanent employees with legally protected contracts were reduced.

“No-one gets fired. Those who retire or resign are not replaced by external [staff]... If we cannot find a replacement internally, and the job is critical, we consider temporary contracts [externally]” (D51).

The main issue with such action was some loss of experience and organisational knowledge. Many individuals had accumulated experience and knowledge in AERO for decades. Unfortunately, on many occasions, particularly for technical personnel, this knowledge was not recorded in detail. In the past, when the time came for someone to retire, the need for replacement was identified well in advance. New recruits were placed side by side with the people to be replaced, in order to pass on knowledge and experience. In recent years, this policy was not followed successfully, as there seemed to be confusion and delay with recruiting internal personnel replacements.

“Internal move of personnel has caused many problems. It takes too long to find the staff to replace those who retire. We are losing a lot of knowledge this way” (PF11). “Two people are retiring in our Directorate next week. Human Resources knew about this for months. No internal move has been authorised. Even with external replacement, their experience will be lost [...] the same thing is happening with dozens of others. I don't understand why” (PF17).

- **Strategy objectives**

Following the directives from the EU and the Greek government, AERO adopted a corporate strategy during the period of this research study that was based on two major objectives:

- Competitiveness, which could be achieved by focusing on:
 - Offering competitive products and services;
 - Maintaining a low production cost;
 - Adopting a quick response and flexibility to meet the market requirements.
- Effectiveness, which could be achieved by focusing on:
 - Gaining experience in international cooperation with partner organisations;
 - Flexibility in decision making and reduction of bureaucracy;
 - Knowledge of the national legislation and procedures.

AERO's top management anticipated that these objectives could be reached through the company's long-standing capabilities:

- Long experience in the aerospace industry;
- Specialised technical personnel;
- High quality of workmanship.

5.3.3 Measurement and Evaluation

The researcher's work, as an employee at AERO, resulted in the establishment of at least one Key Performance Indicator (KPI) for each business process. For example, the customer satisfaction process showed an average increase of 1% per year of the customer expectation versus perception metric, since it was established in 2008. This KPI was monitoring how much the AERO products and services met customer expectations. Similarly, the number of new products and services accepted by the clients has increased 2% per year since the establishment of the relevant product/service development process.

5.4 Change Program at AERO

This section focuses on the process of change in AERO, in accordance with the model of Pettigrew et al. (1989).

5.4.1 Triggers for Change

The way of working at AERO was initially prescribed by the company manual that was written in the early 1970s. The management adopted the operating documentation from a large American aerospace organisation that also specialised in military applications. The documentation was categorised at three levels as follows:

- Management Policy and Directives (MPD) refer to the high-level set of basic principles and guidelines, designed for the pursuit of long-term goals
- Standard Procedures & Instructions (SPI) refer to mid-level operating specifications that define the execution of activities, necessary to run the business. They can involve more than one directorate of the company.
- Directorate Operating Instructions (DOI) refer to the low-level and more detailed specification of the work. These are normally confined within a Directorate.

This documentation was kept without any remarkable changes for about 30 years. The main justification was that the way of working had not changed significantly since the establishment of AERO in the 1970s. The Greek Law 3429 (Papoulias, 2005) imposed the need to reform the Greek SOEs, so that they do not rely entirely on public funding, and they become competitive in the free market. There was a requirement to focus on business process improvements (internally), as well as strengthening existing commercial agreements and establishing new ones (externally). Following this governmental push for change in the Greek SOEs, the researcher was employed in the Planning and Organisation Directorate of AERO.

5.4.2 Implementation Process

The researcher was employed to be part of a team in the Planning & Organisation Directorate, assigned with the task of re-organisation of internal processes, by acting as

change agents and internal consultants to the CEO. The daily work for the researcher was to facilitate the change of existing, or generation of new business processes spanning the whole organisation. This duty was carried out by first identifying a process that needed some improvements or was missing altogether. Then, the directorates that were and/or should be involved in this process were determined. Initially, the list of relevant directorates was populated by using the experience of senior staff, and making some logical inferences. For example, the activity of contracts preparation was considered to be part of the products and services development process (discussed later in more detail). The Directorates of Contracts, and Marketing and Sales were obvious directorates to be included in the process design. Furthermore, the Directorates of Civil Aviation and Quality Assurance were identified by more experienced participants, due to the historic involvement of those directorates in contracts preparation. Contacts with individual directors and process facilitators helped further to identify relevant directorates for any process. Group meetings were organised with all of the relevant participants and discussions were facilitated in order to generate the new processes. In addition to group meetings, the researcher conducted one-to-one discussions with relevant directors, process facilitators and other key employees. The role of the research was to keep track of progress and help with individual steps of the processes. This help was in the form of suggestions, particularly for the sequence of activities that were limited by other processes, the relevant participants of which were not always present.

Period	2005 to	2007				2008				2009				2010 onwards
	2006	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Process														
Customer satisfaction		Ix2	Ix2		Ix6	Ix2		Ix4		Ix4				
Customer strategy development		Ix2	Ix2											
Understanding the customer		Ix4	Fx1			Ix4								
Products/services development					Ix2	Ix2	Ix2	Ix6		Ix4				
Customer feedback				Ix2		Fx1	Ix2							
Procurement									Ix6	Fx1	Ix2			
Advertising			Ix4											
Warehousing					Ix2		Ix2							
Benefits administration				Ix2	Ix2									
Health & safety management			Ix4											
Process design				Ix2		Ix2								
IT services management							Ix2	Fx1	Ix4	Ix2				
Training		Ix2	Ix4		Ix4									

Table 5. 1. Timeline of the generation of some of the major business processes at AERO S.A. (shaded areas indicate duration; I: related research interviews; F: related focus group discussions).

Table 5. 1 illustrates the timeline of the establishment of some of the major business

processes at AERO. The time it took to negotiate and finalise each of those processes is indicated by the shaded bars. The time spread of the number of relevant interviews (I) and focus group discussions (F), which took place during the generation of those processes is illustrated in corresponding cells of that table. Not all of the research interviews and focus group discussions were associated with particular business processes. Only a subset of research data were collected from business process management related meetings. The definition that was adopted for each of the processes mentioned in Table 5. 1, as well as other major processes that were established during the researcher's employment at AERO is given in Table 5. 2.

Process	Definition	Strategic Contribution
Customer satisfaction	Ensuring the customers receive the products and services they require	Competitiveness
Customer strategy development	Establishing policies for treating the existing and potential customers	Competitiveness
Understanding the customer	Maintaining a record of who the customers are and understanding their needs	Competitiveness
Products/services development	Planning and executing all required activities that generate new products and services	Competitiveness and Effectiveness
Customer feedback	Collect and use information from the customers about their satisfaction of the delivered products and services	Competitiveness and Effectiveness
Procurement	Acquiring raw material, goods and services from external sources	Competitiveness and Effectiveness
Advertising	Managing the commercial promotion campaigns for products and services	Competitiveness
Warehousing	Controlling the storage and movement (including shipping in and out) of materials in the warehouse	Effectiveness
Benefits administration	Managing the employee benefits (in addition to the salaries)	Effectiveness
Health & safety management	Ensuring operations are conducted in a healthy and safe manner	Effectiveness
Process design	The generation of efficient and effective business processes to serve customer requirements	Competitiveness and Effectiveness
IT services management	Planning, delivering, using and controlling IT to support operations	Effectiveness
Training	Knowledge dissemination for external clients and personnel	Competitiveness and Effectiveness

Table 5. 2. Definition of major business processes in AERO S.A. and their contribution to achieving strategy objectives.

The major business processes are listed in Table 5. 2 together with their contribution to assisting AERO to achieve its strategy objectives (discussed in the content of change section). Certain processes such as customer satisfaction, customer strategy development, and understanding the customer were part of the competitive strategy objectives. This was mainly because they were associated with the quick response and flexibility required to meet market requirements. Processes such as warehousing and IT services management were associated with effectiveness, mainly because they contributed to flexibility in decision making and helped to reduce bureaucracy. The benefits administration process and health and safety management process also contributed to effectiveness, mainly because AERO's staff possessed very good knowledge of the national legislation and the associated procedures. The products and services development and customer feedback processes were strategically important in underpinning company growth and competitiveness as more data were gathered on customer requirements and on how to provide added value. The processes of procurement, process design, and training aided both competitiveness and effectiveness. This was achieved through controlling costs, improving flexibility in decision making and by reducing bureaucracy.

A typical business process that was generated from the beginning during the researcher's employment at AERO is illustrated in Fig. 5. 3. Customer satisfaction at AERO has been managed very satisfactorily since the company's establishment. However, this has not been done in a systematic processual manner. Many scattered and fragmented procedures and documents, including internal memos and letters were generated over the years, since the 1970s, in an effort to deal with customer satisfaction. The main effort of the researcher as a change agent was to first gather all the relevant documentation and understand the main concepts behind it. Then the researcher organised and participated in a meeting with the relevant stakeholders to discuss and decide about the building elements and their sequence for the establishment of a new business process. The stakeholders required in this case included representatives from all of AERO's Directorates. The input to that process was the will of AERO to attract and keep customers, particularly from the private sector. Then a customer strategy was developed, including long term policies for the interactions with the existing and potential clients. It was considered important to understand what the customer requirements were by systematically recording relevant marketing information about them. Based on that information, it was possible to develop products and services according to the customers' particular needs. To improve the process, customer feedback about the delivered products and services was evaluated, and compared to what the competition could deliver. The process

output was satisfied customers, who were expected to come back to AERO, with more product and service requests.

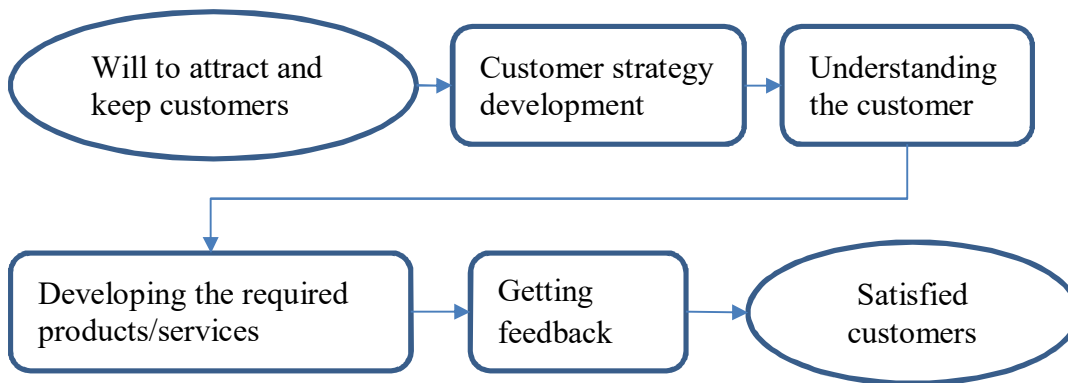


Fig. 5. 3. Customer satisfaction process at AERO S.A.

For the establishment of the customer satisfaction process, the researcher organised and participated in a total of thirty-one meetings from 2007 to 2009. This was part of the researcher's role as a change agent in AERO. The improvement and redesign of this process continued after this period. The data gathered from those meetings has not been used in this research project. For the purpose of data collection for this research, the researcher organised a total of twenty person-to-person unstructured interviews with process facilitators and directors involved in this process design and implementation from 2007 to 2009 (see timeline in Table 5. 1). The participants were properly informed about the purpose of those interviews following the deontology of the data collection method. The purpose of the interviews was twofold: (i) discuss the specific process; (ii) to ask questions about the 'why, what, and how' of change in AERO.

Each of the processual components of the customer satisfaction strategy was another business process that also spanned across many departments in AERO. Fig. 5. 4 illustrates this, by analysing the products and services development process. The input to this process is the understanding of the customer needs and peculiarities. A proposal had to be prepared and sent to the potential client. Upon the proposal acceptance by the client, a contract had to be prepared by AERO, for signature by all parties involved. The formal agreement could also include ceremonial activities or press conferences, particularly for large contracts. AERO needed to generate more detailed specifications about the future products or services and get them approved by the client. Technical designs had to be created, so that the specifications could be met. Production planning was responsible for identifying materials, human resources, and equipment for the agreed products and services. All materials, services, and

equipment that were not available at AERO had to be procured. Then, the actual manufacturing or production was executed in order to deliver what the customer was expecting. The product/service delivery might include further ceremonial activities. The customers usually included in the agreement, the provision of after sales services that ensured the continued function of the purchased goods. The output of this process was the fulfilment of the customer requirements.

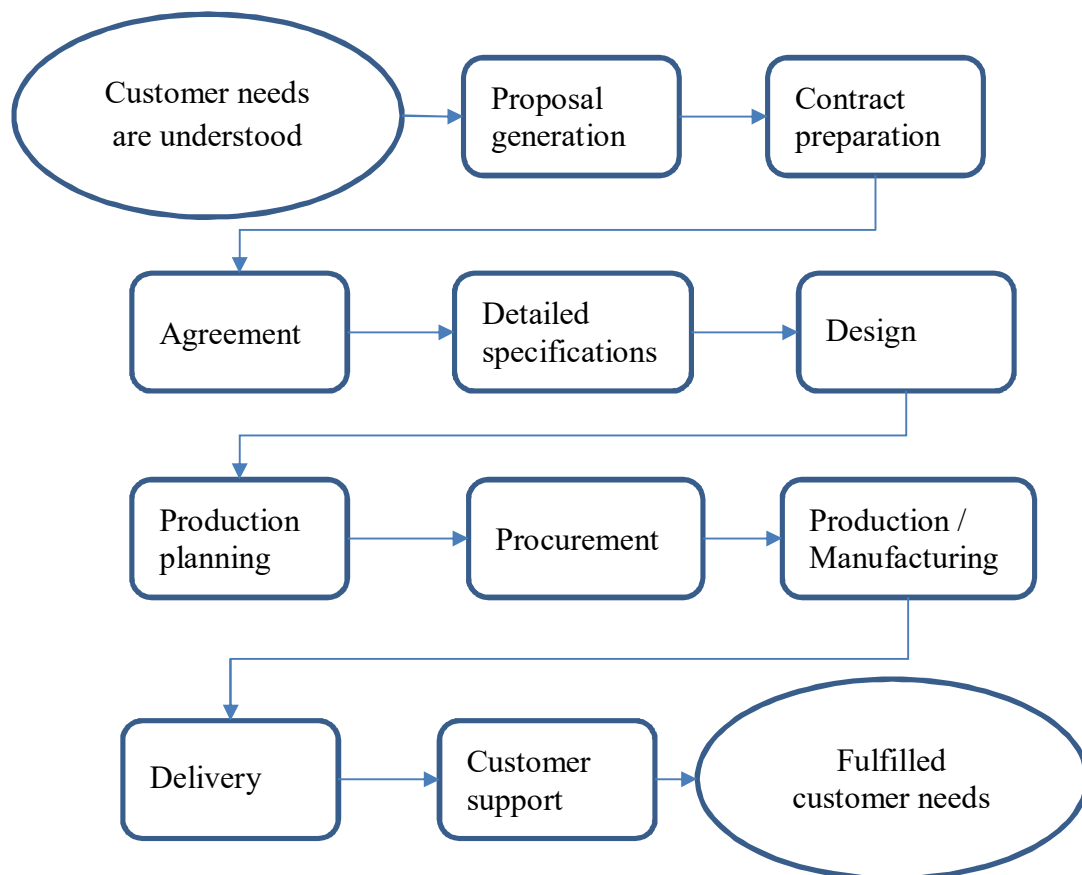


Fig. 5. 4. Products and services development process at AERO S.A.

The researcher was involved in the redesign and implementation of products and services development process from the last quarter of 2007 onwards (see shaded region in Table 5. 1). The researcher organised and participated in meetings with stakeholders, particularly with the Production and Design Directorates of AERO. This was part of the researcher's role as a change agent. Data for the research project were formally collected from a total of sixteen person-to-person unstructured interviews from mid-2007 until the beginning of 2009 (see timeline in Table 5. 1).

One of the major components of the product/service development process was the procurement process. The activities involved in the procurement process are illustrated in Fig.

5. 5. The input to this process was the bill of materials and services that needed to be purchased by external suppliers. This input was also the output to the production planning process (Fig. 5. 4). Detailed specifications were generated for each outsourced product or service. A market study was required, in order to identify potential suppliers, understand potential limitations in volumes and delivery times, and ensure the quality of available goods. Based on the market study, the required supplied goods' specifications were finalised. Suppliers were selected and provided with a purchase order, and details about delivery scheduling and storage requirements were specified. The quality of the delivered goods and services was checked by AERO specialists. Finally, payment to the suppliers was arranged. The output of the procurement process was the availability of the outsourced goods and services, which was also the input to the production and manufacturing process. The activities described above were similarly divided into more detailed tasks. The concept of moving from the high-level processes to the more specific ones has been illustrated by the examples from Fig. 5. 3 to Fig. 5. 5.

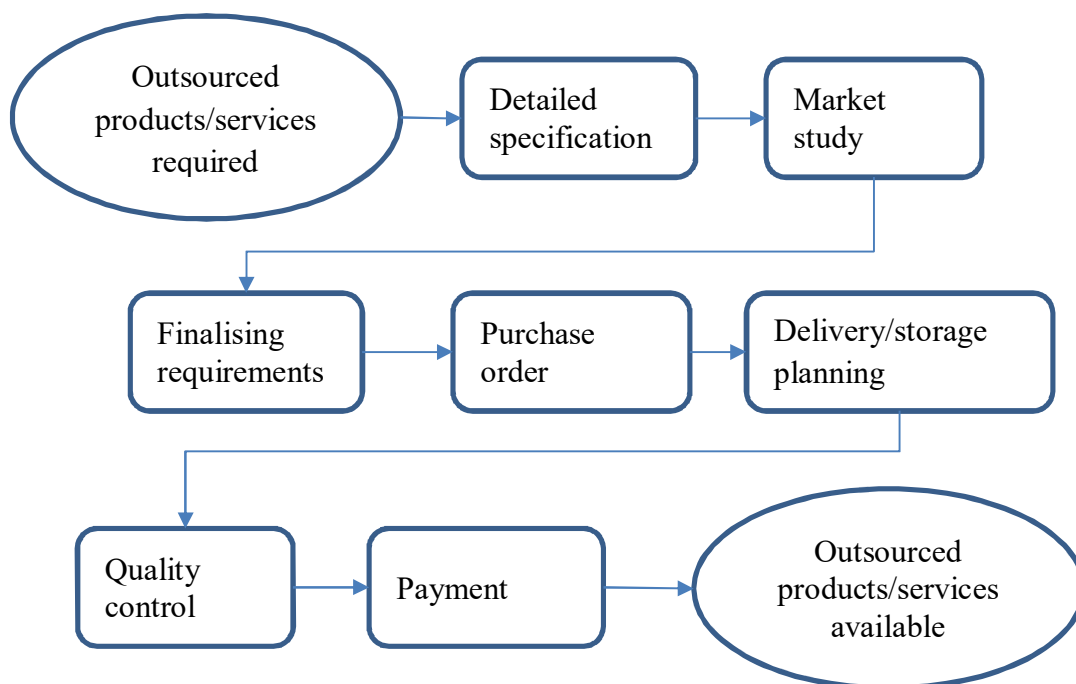


Fig. 5. 5. Products and services procurement process at AERO S.A.

The researcher was involved in the redesign and implementation of the products and services procurement process from the last quarter of 2008 onwards (see Table 5. 1). As a change agent, the researcher organised and participated in meetings with stakeholders, particularly with the Production Plants and the Supply Chain Directorates of AERO. Data for the research project were formally collected from a total of eight unstructured interviews from

late-2008 until mid-2009. The researcher also collected data when he had the role of participant as observer in a focus group discussion dedicated to this process improvement in early 2009 (see timeline in Table 5. 1).

What is also significant to demonstrate is the interaction of the various directorates in AERO during the process design analysed above. Table 5. 3 shows the list of directorates that were integral to the design of the product/service development process (see Fig. 5. 4). Almost all of the directorates in the organisation had to meet and discuss the individual processes that constituted the product/service development process. Not every directorate in the list participated in the design of every subsequent process. The asterisks in Table 5. 3 indicate which directorates had to finally get involved for the individual subsequent processes. It was the researcher's job to manage this process design and ensure the cooperation between the various participants from the respective directorates.

Directorate	Process									
	Proposal generation	Contract preparation	Agreement	Detailed specifications	Design	Production planning	Procurement	Production / Manufacturing	Delivery	Customer support
Marketing & Sales	*	*	*							*
Contracts	*	*	*							
Project Management	*			*	*	*	*	*	*	*
International Relations	*	*	*							*
Aircraft Plant	*			*	*	*	*	*	*	*
Engines Plant	*			*	*	*	*	*	*	*
Electronics Plant	*			*	*	*	*	*	*	*
Manufacturing Plant	*			*	*	*	*	*	*	*
Quality Control	*			*	*	*	*	*	*	*
Facilities Maintenance						*		*		
Aircraft Systems Strategy & Development						*				
Electronic Systems Strategy & Development						*				
Engineering						*		*		
Human Resources				*						
Training				*		*		*		
Supply Chain	*			*	*	*	*	*		*
Informatics				*	*	*				*
Civil Aviation	*	*	*	*	*					*
Satellite Systems & Applications	*	*	*	*	*					*
Composite Material Manufacturing & Development	*	*	*	*	*					*
Planning & Organization	*	*	*	*	*	*	*	*	*	*
Business Cooperation	*					*				*
Finance		*				*				
Public Relations and Press	*								*	*
Quality Assurance	*	*	*	*	*	*	*	*	*	*
Flight, Ground Safety Accident Prevention	*			*	*	*	*	*		

Table 5. 3. Participation of directorates in the creation of products and services development process at AERO S.A., analysed into the constituent processes (see Fig. 5. 4).

One of the most important strategic objectives in AERO was to increase sales of products and services to clients beyond the Greek public sector. It was then realised that emphasis should be given to the design and implementation of an advertising process (see Fig. 5. 6). The input to the advertising process is the identification of a potential client, which is one of the outputs generated within the wider process of marketing in AERO. This ensures that the potential client is worth pursuing and requires products and services that AERO can provide. It is important to assess the available resources (including machinery and personnel capable of delivering the project internally and externally). Furthermore, an estimate is required for how long the new project will take, and how much it will cost. For example,

servicing a specific engine for a client may require the purchase of new machinery as well as training of existing personnel, or hiring of new staff. Then a team of specialists needs to be assembled to produce creative advertising. AERO has realised that in the aerospace industry, advertising needs to emphasise the ability to deliver a customised solution to meet the individual needs of each potential client. An advertising campaign should target potential clients through channels such as personal contacts and visits, newsletters, email, and presentations and forums. The reactions, questions, clarifications, criticisms, and comparisons with other competitors, expressed by the potential clients are valuable feedback and opportunities for improving the advertising campaign. The output of the process is a potential client who is informed of the services that AERO can deliver with the utmost focus on quality.

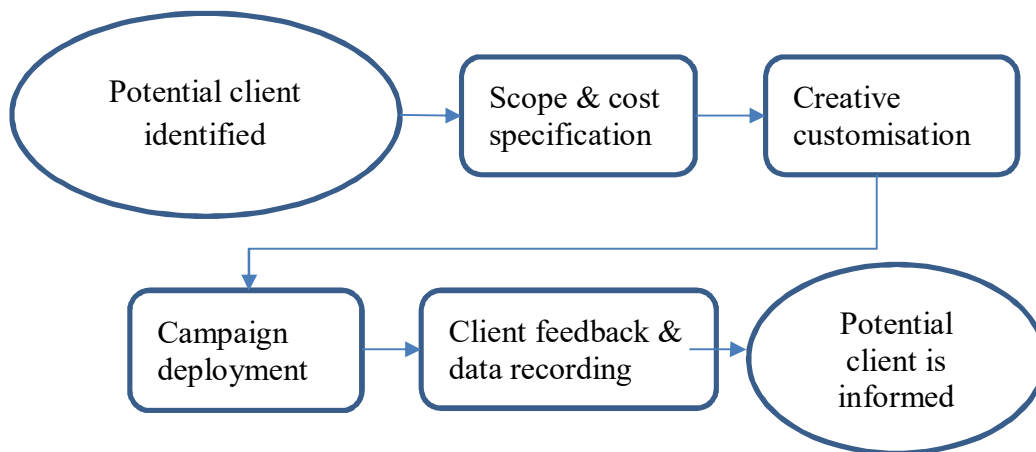


Fig. 5. 6. Advertising process at AERO S.A.

An advertising procedure was already in place for many years in AERO, before establishing the new process above. Personnel initially considered it to be a very bureaucratic procedure that did not provide reasons for the various steps specified. The researcher organised and participated in meetings that sought to replace the old advertising procedure by a new process. This was part of his change agent role from 2006 to 2007. Furthermore, the researcher conducted four unstructured interviews in 2007 to collect data for the research project (see Table 5. 1).

Successful operation of AERO requires support from IT. There was no formal process of IT management in the company, which created considerable confusion. It was hard to distinguish between IT being a solution providing function to resolve a specific technical problem, as opposed to a provider of software/hardware products and services that specify the way operations are supposed to run. The researcher organised and participated in numerous

meetings with representatives from all of the directorates in AERO in order to clarify the role of IT and to establish a process for IT services management (see Fig. 5. 7). This work was part of the researcher's role as a change agent. Furthermore, the researcher organised eight unstructured interviews and one focus group discussion during the period 2008-2009 to collect data for this research project. The starting topic of the interviews and the focus group were about the changes required in the role of IT in the company. However, the discussions developed further to include general matters of change in AERO.

It was decided that IT should provide technical solutions to problems requiring support on demand. Even if there was no readily available software/hardware product in the market, IT was still responsible for finding a technical solution, so that the operational requirements of the company could be fulfilled. The input to the process was an internal or external request for software/hardware related service or product. The problem had to be understood and agreed between the requester and the IT representative. IT should then identify and plan the use of material and/or human resources that should be available and capable of solving the problem. The implementation of the solution that followed, included the acceptance of the suggested solution by the requester. An important element of this activity was to communicate the intended solution to potential stakeholders that could be affected by the change. The stakeholders (including the original requester) should provide feedback on the effectiveness and efficiency of the implemented solution and request any further support if required. The output of the process was a fulfilled request by IT (see Fig. 5. 7).

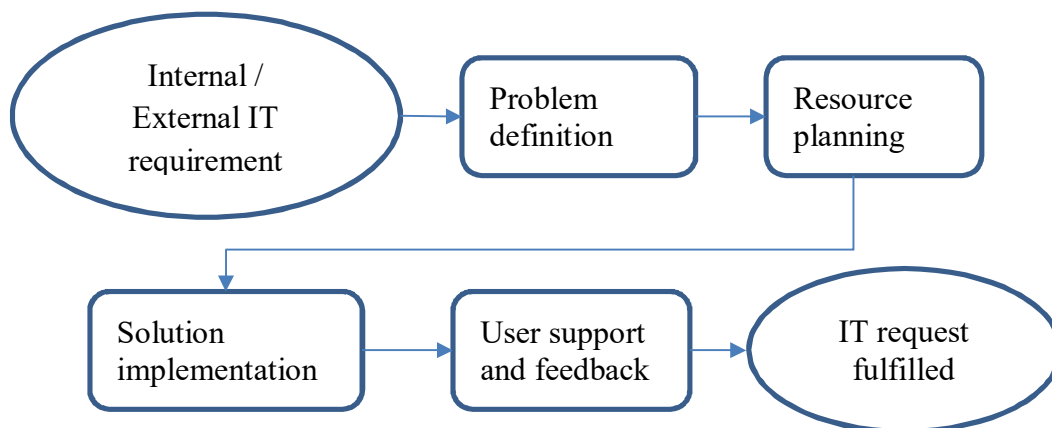


Fig. 5. 7. IT services management process at AERO S.A.

5.4.3 Technology Availability

One of the main contributing functions of information systems to the change efforts in AERO is Enterprise Resource Planning (ERP). ERP systems are business management systems that comprise integrated sets of comprehensive software, used to manage and integrate all business processes and functions within an organisation (Stemberger and Kovacic, 2008). The ERP system of AERO includes a set of business applications and tools for financial and cost accounting, sales and distribution, management of materials, human resources, production planning, and customer information. AERO has recognised two parameters of ERP in the company manual that may contribute to organisational improvements (in line with Zabjek et al., 2009):

- Employees' ability to learn; learning how to operate and occasionally modify the ERP system;
- Employees' ability to adapt; as the business processes evolve, employees have to be able to adapt themselves and the related IS to the new status.

AERO has established a list of principles for the effective operation of the ERP systems in the organisation (in line with Harrison, 2004; Gargeya and Brady, 2005; and Al-Mudimigh, 2007):

- Having clear objectives of what the ERP is supposed to serve;
- Team composition taking into account ability and experience with the goal to be results driven;
- The stakeholders of the ERP should have the ability to learn new things;
- Training of the users and the people immediately affected by the ERP;
- Establishing clear communication and progress updates;
- The choice between ERP customisation and business process redesign should be based on promoting customer satisfaction. If the effect on customer satisfaction cannot be identified, then the criterion becomes operational cost.

5.5 Critique and Concluding Remarks of the Chapter

This chapter presented background information about AERO S.A., where the research was conducted. Initially, a deductive analysis was conducted using the model of Pettigrew et al. (1989), to evaluate the qualitative data.

AERO is a typical Greek SOE with a largely hierarchical structure, specialising in the aerospace sector. During the period of this research project, it comprised twenty nine directorates and employed more than 3000 permanent employees. The structure presented here can provide useful information for future reference, since the organisation's structure may change with time.

The Greek government owns AERO in its entirety. Since the establishment of AERO, the various governments have played direct or indirect influencing roles in the company's operation. Indirect influence can be considered through the enactment of legislation impacting the operation of Greek SOEs (e.g. law 3429/2005), employment protection legislation (Alexiadis, 1994), or the strategic reform plans of SOEs for increasing competitiveness in the free market (Papazoglou, 2010). Direct political influences in AERO have been on the:

- Selection of international organisations for cooperation and business agreements, based on strategic alliances between countries;
- Criteria for employee recruitment, internal transfers, promotions, and disciplinary action;
- Allocation of managers and directors to their posts;
- Promoting trade union membership and empowerment of trade unions;
- Allocation of benefits to employees;
- Selection of suppliers of consumables, materials and equipment.

The main objective of this chapter was to provide a basic understanding of the particularities in the operation of a typical Greek SOE (such as AERO). This was achieved by referring to internal company records and unstructured interviews with the company's directors and business process facilitators. The events presented here were cross-checked with at least two directors and two process facilitators each time, to ensure validity and reliability. The study of the historical and political background of the company avoids an ahistorical research of change, and provides a connection with the business environment (Pettigrew et al., 1989, 1992).

The competitive strategy is a major element of change in the model of Pettigrew et al. (1989). It is historical and takes into account the business environment that the organisation

operates in. In the first three decades of the operation of AERO, there was limited consideration about developing a competitive strategy. This was mainly because about 80% of the company's income was from the guaranteed contracts with the Greek government. In that respect, AERO had a monopoly in the maintenance and repair of the HAF aircraft. The remaining contracts were mainly negotiated and won with the help of the Greek government through international bilateral agreements. In the last decade, or so, concentrating on efficient scheduling for delivering to clients outside of the Greek government has been at the centre of attention. As an international competitor, AERO has maintained focus on the high quality, as well as speed of delivery of its products and services. Furthermore, AERO has very competitive prices compared to many countries in the West, mainly due to the comparatively lower wages.

The major functional contributions to the strategy of change were considered from the perspective of the Directorates of Marketing and Sales, Informatics, and Human Resources. Pricing, and distribution of products and services, as well as customer satisfaction were considered to be the main functional elements of the contribution from the Marketing and Sales Directorate. The major contribution from the Informatics Directorate was the deployment, operation, and maintenance of the Enterprise Resource Planning (ERP) system. The Human Resources Directorate has a key role in the management of change in AERO. The number of employees remained almost constant from the 1980s until 2010 (AERO, 2015). The recent economic crisis in Greece forced management to find ways to cut costs. One of those ways was the reduction of personnel. Redundancies did not take place since the permanent employment contracts were protected by Greek legislation. For that reason, top management in AERO decided to reduce permanent personnel by not filling any vacancies that occurred due to retirements and resignations, with people from outside the company. Instead, internal transfers and occasional temporary contracts were implemented. One of the outcomes of this policy was the loss of some organisational knowledge and experience.

The researcher was employed as part of a team in the Planning & Organisation Directorate, assigned with the task of re-organisation of internal processes, by acting as change agents and internal consultants to the CEO. The daily work for the researcher was to facilitate the change of existing or generation of new business processes, spanning the whole organisation. This role required getting directors, process facilitators and other relevant individuals together, to discuss, design, and implement business processes. The work also involved one-to-one discussions with those participants for the purpose of implementing BPM. It is estimated that since the beginning of 2005, the researcher has been involved in several thousand interactions of this sort as part of his job.

The main positive outcome of the efforts to establish business processes in AERO was a better understanding of the content (what), context (why), and the process (how) of change. By facilitating discussions, it was easier for the participants to understand what needed to change in the organisation. Furthermore, commitment to change was strengthened, as the participants understood what the reasons were behind the proposed changes. Finally, the steps and sequence of activities and tasks were established, in order to implement the required changes. Prior to this change initiative, there were numerous procedures, instructions, memos, and letters that had accumulated over the years, attempting to provide guidelines for work. These were on many occasions perplexing, without showing any clear connection with an overall strategic view. Moreover, the old documentation lacked performance measurements of the prescribed work.

The main business processes at AERO required a long period to develop. Sometimes it took years until a consensus was reached. For instance, even when the first version of the customer satisfaction process was agreed in 2008, it took another 4 years of review, until all of the involved parties actually accepted and acted upon it. The main reason was the large number of directorates and participants that were required for the design and implementation of those major processes.

The elements of history, culture, and politics explored in AERO were categorised in the context of the model of Pettigrew et al. (1989) in a logical manner. Nevertheless, depending on the researcher's perspective, these elements could equally be under the content (what) of change in the Pettigrew model. They are part of the context because they provide a general contextual/background profile of the organisation and its environment, which justify the need for change. In that sense, this provides an answer to why change is required. Asking 'why' is a simplified expression of the contextual background that makes change necessary. Asking 'what' provides a simple way of identifying the specific situation or operation that needs to change. Finally, asking 'how' is a simplified reference to the method or action to follow in order to implement the change respectively. Iqbal (2003) argued that designing new or changing existing business processes falls under the category of process of change in the model of Pettigrew et al. (1989). However, the input of a business process could also be viewed as being part of the context (i.e. the reason or requirement) of change. The activities executed in a process could fall under the category of process of change (i.e. how the change is implemented), and the output of the process could be viewed as the content of (i.e. what needs to) change (Iqbal, 2003). Considering this alternative categorisation, some of the business processes designed or improved in AERO could be broken down into their constitutive components and categorised as in Table 5. 4.

Contextual elements of change (process inputs)	Contents of change (process outputs)	Process of change (activities in business processes that constitute the method of implementing change)
Will to attract and keep customers	Keep customers satisfied to generate repeat orders	Customer satisfaction process including understanding the customer's needs and developing customised products and services
Employees take advantage of company benefits in addition to their salary (e.g. private health care, transportation, etc.)	Administration and facilitation of the benefits to avoid mistakes and reduce time of compensation	Benefits administration process including monitoring of individual use of the existing benefits, liaising with the external and internal organisations that provide the benefits, cooperating with accounting for cost allocations, and collecting feedback on the quality of the supplied services
Systems and operations change over time	Improved performance of staff that can keep up with the changes	Training process including understanding and taking advantage of existing employees talents, finding appropriate trainers and methodology, and evaluating trainees
Identify potential clients to increase sales to other than Greek government	Potential clients are aware of AERO's capabilities	Advertising process including specification of the advertising scope and cost, and using creativity for customised advertising campaigns
Requirement for IT support so that operations can run efficiently	Fulfilling IT support requests to required quality, cost, and time	IT services management process including the problem definition, planning for IT related resources before implementing solution

Table 5. 4. Alternative categorisation for the business processes under the context, content, and process of change model of Pettigrew et al. (1989).

Business processes were regarded as part of the method of change implementation in this research project. For that reason, they were categorised as part of the Process of Change in the model of Pettigrew et al. (1989).

5.5.1 Summary of the Deductive Analysis of Data

This subsection summarises the findings of the deductive analysis of the data using the model of change developed by Pettigrew et al. (1989). Table 5. 5 groups the findings of the deductive analysis into the context (why) of change, content (what) of change, and process (how) of change.

- **Context of change**

AERO was established to provide technical support to the Hellenic Air Force and contribute to the defence of the country. The organisational structure is mainly vertical with functional management. However, there is also project management that operates on a horizontal level across the organisation. This combination creates a matrix structure. One of the main cultural values in AERO is having a job that is for life. This is embedded in the common belief system since it has been given as a privilege to the employees for the last 30 years. The management does not possess the ultimate power of making decisions and taking action in the organisation. Such power is shared with the government and trade unions. The political environment since the establishment of AERO has been a stable democracy with alternating capitalist and socialist governments. There is almost no competition for the Greek government contracts. The international contracts are normally the result of agreements between Greece and other countries. Both the domestic and international business environments require high technical standards to be satisfied in order to qualify the organisation as a supplier of aerospace products and services.

- **Content of change**

The strategy of AERO has focused on delivering products of high quality and on time. The management of the cost has typically taken second place, resulting in operational costs going over budget and requiring coverage of the deficits by the Greek government. The data for this research, concerning the functional contributions to the strategy of change were limited to the Directorates of Marketing and Sales, Informatics, and Human Resources. The main objective of AERO is to become competitive and effective and not have to rely upon financial support from the government. Key performance indicators have been established in business processes such as customer satisfaction and acceptance of new products and services. This enables management to measure and evaluate the change efforts.

- **Process of change**

The main trigger for implementing change has been the Greek legislation to reform the SOEs, to render them competitive and financially independent of the state. The implementation process refers to the implementation of BPM as a method for facilitating change in the Greek SOEs, covered by the legislation. Enterprise Resource Planning systems are the main technology available in AERO for implementing operational changes through the implementation of BPM. The efforts to implement the changes via BPM started about 10 years ago and are still ongoing.

Original model of Pettigrew et al. (1989)		Deductive analysis
Context	History	Covering public needs (e.g. defence support) [5.1.1]
	Organisation structure	Matrix (vertical hierarchy with functions and lateral via project management) [5.1.2]
	Culture	Job security [5.1.4]
	Politics	Strong presence of trade unions [5.1.3] Control by the government (intervention in the management) [5.1.3]
	Business environment	Strict technical standards for products and services [5.2.1]
	Political environment	Stable Democratic environment with alternating capitalist and socialist governments that have power to negotiate contracts with other countries [5.2.2]
Content	Prior strategy	Emphasis on quality and time of delivery [5.3.1]
	Functional contribution	Marketing and sales Informatics Human resources [5.3.2]
	Objectives	Competitiveness and effectiveness [5.3.2]
	Measurement and evaluation	Key Performance Indicators [5.3.3]
Process	Triggers for change	Greek legislation for autonomy of SOEs [5.4.1]
	Implementation process	Implementation of BPM [5.4.2]
	Technology availability	Enterprise Resource Planning [5.4.3]

Table 5. 5. Deductive analysis of data using Pettigrew et al.'s (1989) context, content, and process in the management of strategic and operational change and competitiveness (relevant sections of reference in square brackets).

Chapter 6. Research Results on Change Management from an Ancient Greek Philosophical Basis

The results from the inductive analysis of the research data are presented in this chapter. The main objective of this chapter is to show how the first primary research question can be answered from the analysis of the data. The influence of Ancient Greek Philosophy (AGP) on the management of change in Greek SOEs is explored in this chapter. These findings will be used to extend Pettigrew et al.'s (1989) model of change and generate a new CM model applicable to Greek SOEs.

This research is an exploratory study. Unstructured interviews and participant observation in focus groups were conducted with 56 Directors (D) and 30 Process Facilitators (PF) in AERO S.A. The Researcher (R) engaged in dialogue with the interlocutor and extracts of those dialogues are given to support the findings.

The first primary research question is:

AQ AGP-CM: What role does Ancient Greek Philosophy play in facilitating or inhibiting change in the Greek SOEs?

Following the approach of Pettigrew et al. (1989), the primary research question was divided into three secondary research questions:

AQ AGP-CM1: What is the context of change in Greek SOEs? In other words, why is the change needed?

AQ AGP-CM2: What is the content of change in Greek SOEs? In other words, what needs to change?

AQ AGP-CM3: What is the process of change in Greek SOEs? In other words, how should the change be implemented?

The Socratic method of questioning was adopted during the interviews and the focus group discussions, in order to identify whether AGP had any influence on CM. The questioning method of Socrates followed a logical approach of asking one question after the other, with the aim to make the interlocutor come to a logical conclusion (universal truth), by excluding irrationalities through generalisations.

6.1 The Context of Change in Greek SOEs

This section addresses one of the secondary research questions:

AQ AGP-CM1: What is the context of change in Greek SOEs? In other words, why is the change needed?

6.1.1 Change is Unavoidable

From the interviews and the focus group discussions, it was evident that there was a widespread belief that change cannot be avoided. On many occasions, this belief was rooted to the ancient Greek philosopher Heraclitus, who believed that everything changes in all aspects of life (Wheelwright, 1959). The underlying assumption was that change on a small or a large scale in an organisation eventually occurs at some point in time, regardless of resistance to change. The fact that change is unavoidable can be a facilitating factor to change in Greek SOEs. For example, during a focus group, the following discussion was recorded:

- PF07: *“We always talk about changes but we need to consider why we need to change.”*
- D16: *“Don’t you remember what Heraclitus said that everything changes?”*

(Observation: all of the participants seem to respect that belief as a given that needs no challenge)

- R: *“What do you assume by this?”*
- D16: *“Change will happen in all aspects of life forever.”*
- R: *“I am not sure if everybody agrees with this. Is this regardless of resistance to change in an organisation?”*
- PF11: *“Change will happen no matter what. We have seen it here so many times. The question is how long it takes.”*

(Observation: the rest of the participants appear to agree)

6.1.2 Urgency as a motivator for change

The data indicated that one of the major reasons for implementing change in the organisation can be the sense of urgency to deliver a product or service, or to avoid a crisis. Respondents believed that a crisis or a threatening situation to the organisation could be a stimulating factor for change (i.e. a facilitating factor for change). This characteristic was linked to cultural traits that originate from Ancient Greek life. The Ancient Greek

Themistoklis embraced the idea that a state of emergency can result in pioneering and accelerated change (Kyriazis and Zouboulakis, 2004). Currently, the Greek government facing pressures from the European Union is pushing for deep reforms in Greek SOEs. It is expected that once AERO is pushed to compete on the international market much more intensely, changes will be enforced as a matter of urgency. Such a critical situation was also viewed as a threatening state to the organisation, especially if the company proved uncompetitive against the international competition. Participants found such a critical state to be a stimulating factor for change. The following discussion, during a focus group session illustrates the argument:

- PF11: *“Have you thought about the reasons for implementing changes to our activities and tasks?”*
- D21: *“We are under a lot of pressure to change; it's like having to deal with a crisis.”*
- PF03: *“Don't forget that change under pressure has helped us [Greeks] to overcome the biggest problems since the ancient times.”*
- R: *“Do you mean that urgency by itself is enough to motivate change?”*
- PF03: *“It is at least one way that will work for sure.”*
- D21: *“I agree; there are certain characteristics that define us [Greeks] since the ancient times.”*
- R: *“Is the urgency generated only internally?”*
- D21: *“It comes from outside; it can be the client, the government, the EU”*
- PF03: *“Don't forget the competitors; if they try to steal our customers, we'll have to implement improvements. I am sure we'll be like the Ancient Greeks under the threat of invasion.”*

(Observation: reference to Ancient Greek cultural basis tends to turn the more sceptical participants to have a more positive attitude towards new ideas for improvements)

6.1.3 Sense of Direction and Purpose

Socrates was a strong adherent to the idea that change efforts should only take place when there is clear reasoning behind them (Lear, 1998). Research participants were aligned with the idea that one of the main reasons for adopting change was the establishment of justifiable objectives and direction, as a result of the change. During the data collection, it was observed that individuals were more supportive of change, when they understood that a desired outcome would be achieved afterwards. The participants sturdily wanted any changes to be consistent with and contribute towards the organisational mission. However, the perception among employees was that there was no clear direction and purpose to the

proposed change. This acted as an inhibiting factor to change. The following dialogue from a focus group discussion illustrates this:

R: *"I am trying to understand why changes in these directorates are so difficult to implement."*

D48: *"There is always the problem of understanding how changes fit with a higher purpose."*

PF26: *"I don't understand why you find this surprising. For thousands of years, the Greeks have never changed their way of life unless it was logical to do so."*

(Observation: reasons for change generated heated discussion about how frustrating organisational decisions have been in the past).

R: *"Is it only about making sense in order to embrace change?"*

D48: *"I have been here [in AERO] for many years and had to put up with a lot. I can surely say that understanding what is the high level outcome of change is the best starting point to embrace change."*

6.1.4 Individual Benefits

During data collection, it was evident that a major reason for supporting the generation of efficient and innovative processes was the expected personal gain for those suggesting or implementing the changes. Aristotle(b) (384BC - 322BC, 8, 1159a) argued that changes and improvements in the quality of work outcomes are positively associated with personal benefit or personal interest. This means that someone is expected to act towards improving their work if they derive some sort of personal benefit from this improvement. However, the research participants took the view that there was currently very little personal benefit to be gained from any changes. This was an inhibiting factor to change. During a focus group discussion, the following dialogue shows a typical perception of serving personal interest as a motivator for change:

PF02: *"[...] Well, I will draw my experience as a change agent and tell you that when I see some personal benefit from something, I do what needs to be done."*

R: *"What do you mean by this?"*

PF02: *"We are supposed to implement changes and think in an innovative way for improvements. The question is obvious: what do I gain from that?"*

R: *"Are you referring to money?"*

PF02: *"Extra money for the improvements that I implement is certainly one of the things I have in mind. There is no doubt about the motivating power of money. My main role has to do with improving processes and the value of each process is not the same."*

D47: *"Personal gain has helped introducing innovation since ancient times."*

D42: *“I want to remind everyone that all of the performance related pay systems that we tried in the past were considered unsuccessful.”*

(Observation: there is widespread resentment among the participants towards previous performance related pay systems.)

Respondents did not restrict their interests to gaining money or other material benefits from supporting change. They also perceived the assumption of a leadership position for change to be highly desirable. The Ancient Greek philosopher Xenophon was one of the strongest supporters of the idea that responsibility and leadership can be motivating reasons to change, resulting in business improvements (Stevenson, 1990). The following dialogue from a focus group discussion illustrates this conviction:

PF14: *“Implementing change is always difficult because people cannot see how they will personally benefit.”*

R: *“What kind of benefit are you referring to?”*

PF14: *“We [the Greeks] always want to be leaders. Perhaps this is something we have inherited from ancient times and it cannot change.”*

D42: *“This characteristic can actually be used to implement change. Just make someone a leader and they will immediately start thinking about changes.”*

R: *“Is this enough?”*

D42: *“Perhaps not. It is the sense of responsibility that everyone likes to take.”*

6.1.5 Change for High Quality Output

Many respondents believed that one of the major reasons to embrace change was the expected outcome of generating high quality process outputs. Quality was perceived as conformance to requirements, which could be achieved through implementing BPM. Many respondents viewed high quality as maximal adherence to the expected process output as specified by internal or external customers. The research participants believed that that historically, the company has focused on high quality output, which is part of the organisational culture. The will to maintain the ability for high quality output is a facilitating factor to change. Recognising and utilising individuals' capabilities and talents was highly regarded by the respondents. They believed that people should be able to use their capabilities effectively to improve the quality of process outputs. The association of individuals' talents with high quality outcome of work has also been discussed in Aristotle(a) (384BC - 322BC,

10, 1175a). The following dialogue that took place during one of the focus group discussions provides a good example of the above belief:

D11: *“I want everyone to understand that keeping a high standard and improving the quality of our work needs to accept the need to keep changing our operations.”*

R: *“Is quality a good reason for changing continuously?”*

PF08: *“Not only is it a good reason, it provides the opportunity to exploit special capabilities that everyone has.”*

D11: *“I remember from my Ancient Greek studies that Aristotle used to say that if you like something you will perform better at it.”*

R: *“Can you elaborate on this?”*

D11: *“If you have a talent at something and you like doing that, you will keep on improving.”*

(Observation: participants tend to become sarcastic about the fact that they believe people’s capabilities have not been exploited for years).

6.2. The Content of Change in Greek SOEs

This section addresses one of the secondary research questions:

AQ AGP-CM2: What is the content of change in Greek SOEs? In other words, what needs to change?

On many occasions, the factors that emerged from the dialogues for the context of change (see previous section) generated questions about the content of change.

6.2.1 Implications of Change Being Unavoidable

Following the discussions, which brought forward the belief that change is unavoidable (see 6.1.1), the exploratory research focused on what needs to change, as a result of this belief. The question that was asked to the respondents was:

“If we assume that change is unavoidable, then what needs to change in the organisation?”

It was concluded that there is a requirement to be ready in order to embrace and manage change, rather than trying to simply react to change. This necessity of readiness was viewed as the degree of alertness for the possible upcoming change, in order to be able to proactively respond. The respondents considered the necessity of readiness to be a facilitating factor to change.

"There is a saying where I come from: Water that doesn't flow, becomes spoiled. Change is necessary, even if we like it or not. So, if we cannot stimulate change, we should at least be prepared for it. All the pressure to harmonise with the European Directives about competitiveness may or may not actually work. The point is not what will be the trigger for change. The point is that [AERO and other] Greek SOEs need to change and will change. So you'd better be prepared" (D33).

The respondents believed that a large degree of uncertainty can be present when changes are planned and during the implementation stage, and familiarisation with this uncertainty is required. Respondents considered it important to embrace uncertainty and feel brave about it, rather than trying to avoid uncertainty. It may not be possible to predict what the required change will be, or what it will bring. This rendered the existing uncertainty as an inhibiting factor to change. However, it can be certain that change will be required, which makes uncertainty of future situations friendlier.

"I think our biggest frustration is uncertainty about the future and how everything that happens affects our lives. AERO has changed over the years and will definitely continue to change in the future. Change doesn't have to be a big spectacular situation. Everyday little things constitute change. Sometimes even by following your usual daily routine you actually experience change because there are so many parameters that affect our lives. So, there is no reason to be afraid of change" (D12).

Respondents believed that if change cannot be avoided, then change should be directed towards creating an ethical business operation. The constant change was viewed as an opportunity to transform the organisation in a way that it embraces ethical conduct at work. Unfortunately, the respondents did not feel that the Greek SOEs were operating ethically at all times, which was an inhibiting factor to change.

"The only reason that I would like changes to happen [in AERO] is the possibility of operating and behaving ethically. This is our biggest disease" (PF07).

Some respondents viewed the opportunity to embrace ethical conduct at work as an opportunity to strengthen the organisation's competitive advantage.

"For many years [Greek SOEs] have been regarded as sources of corruption. Being ethical will help [AERO] to be a stronger competitor" (D05).

Respondents believed that change can also strengthen the sense of trust that the public has in Greek SOEs.

“The public has a typical view about the corrupted [Greek] SOEs. Since we cannot avoid change, this is an opportunity to be ethical and make the public trust [AERO]” (PF18).

6.2.2 Activation of Change Agents

Aristotle(d) (384BC - 322BC) debated about the facilitation of change by individuals who take personal responsibility for the outcome of the change. The research respondents strongly associated this trait with the operation of change agents in AERO. They believed that change agents could implement change depending on their capabilities and talents. Process facilitators identified themselves as change agents who relished having the responsibility, as well as the freedom to act. The participants believed that activation of change agents in the organisation was a facilitating factor to change. The following dialogue illustrates that conviction:

R: *“If you had the power to change something, in order to improve the operation of your unit, what would that be?”*

PF25: *“I feel I am responsible and have the capability to change things. This is not because this responsibility was given to me. I took it, and I do what I feel is right.”*

R: *“Can you explain that a bit further?”*

PF25: *“I don’t need to explain because taking action when a result is needed is in our psyche from ancient times. I cannot simply wait for things to happen. I need to act to get the result.”*

R: *“As a process facilitator, what do you think needs to change?”*

PF25: *“I simply want to facilitate changes so that processes are efficient; and I want to take responsibility for the result. I am an agent of change.”*

6.2.3 Long-Term Change

Respondents stated that one of the main reasons for adopting change was the establishment of justifiable objectives and direction, as a result of the change (see 6.1.3). The research explored what needs to change, so that people could be more supportive of change, if they anticipated that a certain outcome or objective would be met after the change. The question that was asked to the respondents was:

“What needs to change in order to achieve the long-term direction and goals?”

The required change was expected to have some logical meaning to everyday operations, as well as long-term impact. Respondents expected some justification for change

before they would support it. This means that change implementation needs to simply make sense. The respondents did not generally believe that there was currently adequate justification for change, since there was lack of rationale. This was an inhibiting factor to change.

"Most of [AERO's] income comes from the Greek military contracts and we even have some military presence here, since they are our biggest customer. Well, do you think that we can be managed by barking orders like being in the army? If you want people to change the way they work, you need to convince them. Your suggestions have to be logical" (PF30).

Respondents expected the suggested changes to be consistent and contribute to the organisational mission. In other words, operational changes have to be aligned with the long-term vision of the organisation. The respondents did not think there was consistency between the suggested change and the organisational vision, which was an inhibiting factor to change.

"Every so often, a new management comes and changes the vision. Did you expect to press a button and make everyone change their habits? The changes must have the same direction with the overall company vision. If we need three years to get to the vision and the vision changes every two years, how is it ever going to work?" (PF20).

6.2.4 Pulling Rather than Pushing for Change

The Socratic method of finding the truth through dialogue is considered a viable method of reducing restraining forces to change, rather than pushing for change (Gray and Stark, 1988). The analogy in AERO was the wide preference of facilitating change by eliminating barriers to change, rather than pushing people to change regardless of the associated difficulties. The data indicated that participation in management decisions and empowerment of personnel to carry out changes needed to be more evident in the organisation. The fact that changes were being imposed by management rather than removing barriers to change was considered an inhibiting factor to change, among the research participants.

D19: *"The typical origin of change [in Greek SOEs] has always been some type of legislation. Then, the top management is expected to sort out the details of implementation. This mechanism rarely works because the barriers are still there."*

R: *"So, what needs to change in that mechanism?"*

D19: *"It is so strange that the country that has given birth to the Socratic method does not resort to it, to bring about change."*

R: *"What do you mean?"*

D19: *"A lot of this change will be much more successful if it*

originates from internal [organisational] dialogue in a bottom-up approach.”

R: *“What can this dialogue do?”*

D19: *“The people that work on the first line know better than anybody, what needs to change. All they need is the power to do things right. This is like the Socratic way of delivering what needs to change, as it is hidden in their minds.”*

6.2.5 Internal Marketplace of Processes

The data indicated that one of the main reasons for suggesting and implementing innovative changes can be the existence of individual gain or personal interest in the outcome of the change (see 6.1.4). The continuation of those discussions was about identifying what needs to change, in order to stimulate personal gain as a motivating factor for innovative improvements. The following dialogue from a focus group discussion provides an example:

PF02: *“There are companies that implement processes, based on their value that is negotiated internally, as if an internal marketplace exists.”*

R: *“Is this a system we need to implement in the company?”*

D47: *“The Greeks have been entrepreneurs since the ancient times. Haven't we travelled around the world to trade goods and expand civilisation? This is not a new concept. How it can be applied in here is what puzzles me.”*

(Observation: There seems to be significant interest in the operation of an internal marketplace of processes to satisfy the need for personal gain from implementing changes).

The respondents believed that overall, the concept of an internal marketplace of processes can facilitate change. They perceived the internal marketplace of processes to a great extent to be similar to an external free market for the exchange of services and goods in return for money. In the internal marketplace, process owners were expected to be motivated by personal gain, in order to stimulate promotion and sales of internal services in the form of a process output for the organisation. The question that was asked in interviews was:

“What changes are required to establish an internal marketplace of processes?”

The power to sell ideas and services through process actualisation was expected to be the responsibility of process owners through the power of dialogue. This was viewed as a bottom-up approach to change, rather than a to- down forced change.

“Process owners need to take advantage of their talents. [...] Selling their ideas and their services that is. They have the ability to convince

others and not order them to do things like soldiers. I believe their main power lies in dialogue” (PF21).

The buy-in process of implementing innovative changes and improvements was believed to be an essential requirement for management innovation. The autocratic management style in AERO needed to change. Some respondents believed that the management of business processes required an innovative perspective, which could prove attractive to internal stakeholders. Change which was strongly supported by staff could then be implemented more efficiently, without management having to resort to authoritarian measures to enforce changes.

“The concept of the internal marketplace of processes needs a buy-in period itself [...] It will create some clever management solutions [...] It is like selling your ideas to others. We are Greeks and we are good at innovation like Odysseus” (PF13).

Some respondents believed that the establishment of an internal marketplace of processes should be associated with monetary rewards. In simple terms, the internal sales of process outputs should be linked with monetary value.

“Selling process outputs internally should not be much different to selling services outside. There is a value for the output that defines the price [...] We need unique and clever changes around here [...] Innovation comes at a price” (D29).

The data showed that the internal marketplace of processes could facilitate change efforts.

“The internal marketplace will help change because it provides motivation to employees to sell new and improved processes to the company” (PF23).

However, it was not clear how process outputs that were inputs to other processes could be discarded simply based on their low value.

“If a process has value to management it survives, otherwise it does not. For some support processes that act as links between other processes it will be difficult to show their value” (D53).

6.3 The Process of Change in Greek SOEs

This section addresses one of the secondary research questions:

AQ AGP-CM3: What is the process of change in Greek SOEs? In other words, how should the change be implemented?

On many occasions, the factors that emerged from the dialogues for the context or the content of change (see previous sections) generated questions about the process of change.

6.3.1 Process of Change via the Sense of Urgency and External Threats

The data identified that a sense of urgency and threat from the organisational environment could be a reason for implementing change (see 6.1.2). Thus, as a continuation, the exploratory research focused on the conditions and means, which may lead to accelerated change, following the sense of urgency and threat from the business environment. The question that was typically asked to the respondents was:

“In what way can the sense of urgency and threat from the external environment be a motivator for change?”

It was widely suggested in interviews and focus group discussions that a sense of unity among the personnel in times of crisis is an Ancient Greek cultural characteristic, which is even evident in modern times. It is expected that everybody in the Greek organisation will put aside their differences and disagreements, and become an integral part of the team with common goals. This was a facilitating factor to change. As a result, if change is required to avert a crisis generated from the business environment, efforts for change are expected to be accelerated.

“The Greeks become unified when in danger. History has taught us this since Ancient times to now. If we get to a point where our way of life is threatened, our differences and conflicts will immediately disappear. It has happened many times, it will happen again” (PF12).

There was also a strong belief that in times of urgent demand for changes, everything can be accelerated by emphasising the core capabilities and minimising wasteful activities. In this way, implementing change can be more effective and lost time or resistance to change can be reduced. This was a facilitating factor to change.

“I remember it was one of the times that we had to maintain the presidential airplane. After the job was done, the pilot took it out of the hangar and due to an error, the plane's tail fin hit a wall. Nothing

major, but wouldn't be able to travel the next day as was scheduled. All the people that were still there didn't have a second thought. They brought it back in, stayed overnight and fixed it. All the paperwork and associated bureaucracy was put aside and people behaved as if it was a military aircraft at war that needed to get up in the air fast. There was not a single quality control issue. They managed themselves. No order came from official management. It was about taking pride in their work and having this feeling of duty. If they could act so efficiently every time, you would probably never need any management system [in AERO]" (D31).

In times of emergency, communication between the various stakeholders involved in change is expected to be as effective and efficient as possible. Enhanced communication is required in a critical situation, in order to ensure that change is both implemented and effective. The enhanced communication was considered facilitating factor to change among respondents.

"In case of emergency, you tend to keep all communication to the bare minimum and you get straight to the point. This is what we need to apply to get the changes around here faster" (PF22).

6.3.2 Process of Change through Change Agents

The data indicated that change agents need to be actively implementing change in the organisation. The main belief was that organisational change could be facilitated by individuals who take personal responsibility for implementing changes to whatever degree they can (see 6.2.2). As a continuation, the exploratory research focused on the conditions and ways that change agents could deliver the required outcome. The question that was asked to the respondents was:

"How can change agents be active facilitating change in the organisation?"

Respondents understood that change agents may often have to be involved in negotiations with the stakeholders that are affected by a change. Change agents were expected to be good negotiators to resolve any potential conflicts. Their negotiating capability could be a facilitating factor to change.

"As a change agent, I usually have to bridge two conflicting forces: management and the union. I need to keep good rapport with both of them and need to find solutions that will be somewhere in the middle of what each side wants" (PF25).

Change agents were expected to communicate the long-term vision and the anticipated benefits of implementing changes. This was mainly because change agents were directly interacting with the company personnel. In effect, such immediate interaction and communication could provide people with a motivation to support the change, if the end result was beneficial and made sense. The respondents believed that the ability to communicate long-term vision and associated benefits could be a facilitating factor of change.

"The changes that we suggest are mainly about business processes and activities. If you don't show any benefit to the parties involved, it is almost impossible to convince them to change" (PF28).

The data indicated that change agents need to be trustworthy. It was evident that people regard them with high esteem and were very cooperative with change agents that they trust. This was a facilitating factor to change.

"The main reason that I supported the idea of using change agents is because in the eyes of the average employee, the change agent is not part of the official management, is not corrupted by the union, and still wants to change things for the better. So, they have bigger chances to gain the trust of the employees" (D08).

6.3.3 Method for the Pulling Mechanism of Change

Following the discussions about the requirement to remove barriers to change, rather than pushing for change (see 6.2.4), the method of implementing that pulling mechanism was explored further. The following question was asked:

"How can the obstacles to change be removed?"

Respondents felt that they needed to have greater responsibility and freedom to act, in order to implement changes, particularly those that affect them. Simply having others dictating orders to them, without being consulted was not acceptable. Empowerment of personnel was a facilitating factor to change. In addition to providing employees with the power to suggest and implement changes, the personnel needed to have trust in management.

"I am probably the only one who offers this; I say to many people: Do you want to have the power to improve things and be your own boss? Fine, go and do it. I don't mind even if you want to be my boss in that respect. That's even less work for me. Why don't they grab the opportunity? It's a matter of trust" (D19).

The data showed that lateral thinking can help to remove barriers to change. This allows employees to think with an open mind to find solutions to problems rather than following orders. The respondents felt that lateral thinking was a facilitating factor for change.

"Once I explain to them [change participants] that they have the option to find whatever solution that might work, you won't believe how quickly creative ideas are on the table. The Greeks don't like being bossed around; they want to find solutions like Odysseus" (D23).

Many respondents argued that it is important to avoid disappointments from early failure to remove barriers to change. If the obstacles to change are too difficult to overcome, failure to change is expected, regardless how well a change programme is publicised internally. Those early failures can lead to disappointment, which needs to be replaced with perseverance. The respondents believed that perseverance is a common characteristic among them, which could be a facilitating factor for change.

"We have tried to implement a pulling mechanism of change in the past, by concentrating on removing things that were slowing us down. These things were there for so long that they were literally impossible to remove. The disappointment was so evident. Yet, I don't see any better way. So, we need to keep trying" (D26).

6.3.4 Leadership for Change

The data indicated that assigning leadership roles to individuals can be a significant motivating factor for promoting change in AERO (see 6.1.4). The main reason was that taking a leadership role was perceived as serving personal interests including personal gain. The follow up question to respondents was:

"How should business process owners act as leaders for change?"

Process owners in AERO are responsible for the governance of process performance and process change in accordance with the definition of Long (2012). The respondents believed that one of the main elements in process owners' behaviour should be the ability to influence others' perceptions and behaviours. Business process owners assigned with leadership roles for change should be charismatic in convincing others to follow innovative concepts. The respondents believed that many business process owners could facilitate change because they were charismatic and innovative.

"They have to have this charisma that influences others. But they have to be practical too. Following a super innovative idea can be beneficial but can also be dangerous" (PF09).

The data also showed a strong tendency among the respondents to think of process owners as potential change agents who needed to act accordingly. This was a facilitating factor to change. Process owners were expected to take responsibility and operate in a way

that promotes and facilitates change within the organisation. It was also stressed that to succeed as leaders, process owners needed to be trustworthy too.

"I believe process owners need to act as change agents. They need to be responsible for their operations and in this way they can be leaders [...] People need to find exemplary people to believe in. Then, they will follow them if they are trustworthy" (PF14).

The respondents expected process owners to lead by example. In other words, process owners were expected to apply to themselves, whatever they were preaching. Such leading by example was considered a facilitating factor for change among research participants. On many occasions, managers had requested operational improvements to be implemented in AERO, while the managers themselves were not implementing them. This immediately generated a poor perception among the personnel and the requested changes were rarely successful.

"When your department was first created, your colleagues came to me and asked me to setup processes and maps and KPIs and everything. I asked them: Have you set up all these things in your directorate? They said no, and I refused to meet anyone from your department, until you had these things applied on yourselves, before you tried them on me. You are here now, which means something" (D44).

6.3.5 Process for Quality

During the data collection, many respondents argued that one of the major reasons to embrace change was the expected outcome of generating high quality process outputs (see 6.1.5). As a continuation of the exploratory research, the following question was asked:

"How can the individual capabilities of business process owners be used to improve quality of output?"

The respondents indicated that first of all, business process owners should have a clear understanding of the process requirements. In other words, they needed to have a clear view of what internal and external customers want and value most. It was articulated that the procedures in AERO were perplexing and did not have obvious output requirements. When the process output requirements are made clear, process owners will be able to use their own capabilities or those of their teams, to implement improvements. Understanding what the requirements were by internal and external clients could lead to generating output of higher added value for them. Generating such an understanding was considered a facilitating factor among participants. It was expected that the ability to clarify the process requirements should be rewarded.

"One of the difficult processes in this directorate is warehousing. It may sound easy but it isn't. You see all this space and you think there shouldn't be any problem, but there is. Thousands of materials arrive here and sometimes they have to be stored for months, even years. This is something we cannot predict. Some of them need certain distances from each other, certain temperatures and special handling. All sorts of requirements come from outside and inside [AERO]. It gives us a headache to keep everybody happy. We have to find clever storage solutions and improvise. This is not work for the typical 8-hour shift person. [AERO] should be prepared to pay good money to those who have good ideas to solve problems here" (D55).

The data revealed that process owners who were willing and able to bypass bureaucracy were better positioned to use their capabilities to foster change. Due to heavy legislation and bureaucratic regulations, the operation of AERO and the other Greek SOEs had become very inefficient. Predicting where the bureaucratic rules may hinder the efficiency of a process and taking action to avoid such a barrier before it creates delays was viewed as facilitating in implementing changes.

"Work in Human Resources can be very tricky. There are so many regulations from the state and internally. Some of them are even conflicting. It is impossible for anybody to know all the legislation because there are even hundreds of court cases that add to the rules [...] One way of solving this is when in doubt, to go for a solution that is in favour of the employee. This saves [AERO] a lot of money compared to resolving a case in court" (PF08).

The respondents recognised that process owners had to be realistic in their choices and objectives when trying to implement changes. This would enable them to identify which capabilities and talents are required to make successful changes. In particular, process owners were expected to use their ability to pragmatically assess whether an internal or external customer's requirements could be met. This ability was viewed as a facilitating factor among the research participants.

"Process owners must be pragmatic [...] They] must balance two things: dream with reality. I see that they will do whatever it takes to keep the customer happy. But what happens if the customer wants things that all the money in the world cannot buy? I say some customers are not worth satisfying" (D36).

6.4 Summary of Results

Pettigrew et al's (1989) model of change was adopted to explore the underlying influence of Ancient Greek Philosophy (AGP) on initiatives to implement change management programmes (CM) in contemporary SOEs, such as AERO. One of the main underlying assumptions in this model is that organisations can be viewed as cultures themselves that have beliefs and values that shape them and distinguish them from other organisations in the society (Morgan, 2006). In the case of AERO, it was evident that people's beliefs and values were influenced by Ancient Greek Philosophy.

The main objective of this chapter was to answer the first primary research question:

AQ AGP-CM: What role does Ancient Greek Philosophy play in facilitating or inhibiting change in the Greek SOEs?

Following the approach of Pettigrew et al. (1989), the above primary research question was divided into three secondary research questions:

AQ AGP-CM1: What is the context of change in Greek SOEs? In other words, why is the change needed?

AQ AGP-CM2: What is the content of change in Greek SOEs? In other words, what needs to change?

AQ AGP-CM3: What is the process of change in Greek SOEs? In other words, how should the change be implemented?

6.4.1 Original Grouping of AGP Factors

To answer the research questions, the Socratic method of questioning was adopted during the interviews and the focus group discussions. The main factors that were explored during the data collection and analysis are summarised in the three following tables.

Factor	Description (with corresponding sections in brackets)	Facilitates/ Inhibits Change
Change is unavoidable	Change on a small or a large scale in an organisation will eventually occur at some point in time, regardless of resistance to change (6.1.1).	F
Sense of urgency as a motivator for change	A crisis or a threatening situation to the organisation can be a stimulating factor for change (6.1.2)	F
Direction and purpose of change are prerequisite	Employees will be more supportive of change when they perceive and anticipate a certain outcome or an objective to be met after the change (6.1.3)	I
Expecting to have individual gains	Motivation to generate efficient and innovative processes when there is some personal gain for them; this can be monetary benefit or taking a leadership role (6.1.4)	I
High quality process output	Quality is perceived as conformance to requirements and pursuit of achievement for the required process output; use of individuals' talent was considered essential (6.1.5)	F

Table 6. 1. Factors that originate from Ancient Greece which could have a cultural impact on the context (i.e. why) of change in contemporary Greek SOEs (F: facilitating factor to change; I: inhibiting factor to change)

Factor	Description (with corresponding sections in brackets)	Facilitates/ Inhibits Change
Necessity of readiness	A degree of alertness for the possible upcoming change is required in order to be able to proactively respond (6.2.1)	F
Uncertainty	It may not be possible to predict what the required change will be, however, it can be certain that change will be required; this makes uncertainty of the future situations friendlier (6.2.1)	I
Unethical business operation	The constant change can be viewed as an opportunity to transform the organisation in a way that it embraces ethical conduct (6.2.1)	I
Activation of change agents	Organisational change can be facilitated by individuals who take personal responsibility for implementing changes to whatever degree they can (6.2.2)	F
Making sense	Change is expected to have some logical meaning and people expect some reasoning for it before they support it (6.2.3)	F
Unclear vision	The suggested changes need to be consistent and contribute to the organisational mission (6.2.3)	I
Pushing for change	It is preferable to facilitate change by eliminating barriers to change rather than pushing people to change regardless of the associated difficulties (6.2.4)	I
Internal marketplace of business processes	An internal marketplace is perceived to a great extent as an external free market for the exchange of services and goods in return for money; when applied internally, business process owners are expected to sell internal services in the form of processes to the organisation, in return for money (6.2.5)	F

Table 6. 2. Factors that originate from Ancient Greece which could have a cultural impact on the content (i.e. what) of change in contemporary Greek SOEs (F: facilitating factor to change; I: inhibiting factor to change).

Factor	Description (with corresponding sections in brackets)	Facilitates/ Inhibits Change
Unity of purpose among personnel	Everybody in the organisation puts aside their differences and become an integral team with common goals (6.3.1)	F
Focus on lean business processes	There is emphasis on the core capabilities and minimisation of waste activities (6.3.1)	F
Enhanced communication	Communication becomes paramount when dealing with a crisis in order to make sure that change is effective (6.3.1)	F
Negotiation role of change agents	Change agents are expected to be good negotiators to eliminate conflicts of interest (6.3.2)	F
Communicating vision and benefits	Change agents are expected to motivate people to support the change if the end result is beneficial and makes sense (6.3.2)	F
Trustworthiness	People highly value and are very cooperative with change agents and process owners, when they are trusted (6.3.2)	F
Empowerment of personnel	Employees feel that they have greater responsibility and freedom to act in order to implement changes that affect them (6.3.3)	F
Lateral thinking	The personnel need to think with an open mind to find solutions to problems rather than blindly following orders (6.3.3)	F
Early disappointment avoidance	If the barriers to change are too difficult to overcome, failure to change is expected regardless how well a change programme is publicised internally, which can lead to disappointment (6.3.3)	F
Influential process owners	Business process owners need to be charismatic in convincing others to follow innovative concepts (6.3.4)	F
Process owners to act as change agents	Process owners should have the responsibility and operate in a way that promotes and facilitates change within the organisation (6.3.4)	F
Leading by example	Making sure that the process owner applies first what he/she preaches (6.3.4)	F
Understanding requirements	Having a clear view of what internal and external customers want and value most (6.3.5)	F
Bypassing bureaucracy	Innovative ways of eliminating bureaucracy can result in time and cost reduction of processes as well as increase the quality of the process output (6.3.5)	F
Balance between illusion and reality	The ability to pragmatically assess whether a change can result in a customer's (internal or external) requirement to be met (6.3.5)	F

Table 6. 3. Factors that originate from Ancient Greece which could have a cultural impact on the process (i.e. how) of change in contemporary Greek SOEs (F: facilitating factor to change; I: inhibiting factor to change).

6.4.2 Data Structure

Some of the factors that emerged from the data analyses were grouped into 2nd-order themes following the approach of Corley and Gioia (2004) and Gioia et al. (2012), in order to generate a conceptual model of change for Greek SOEs (see Table 6. 4). The categorising of data was aligned with the approach followed by Pettigrew et al. (1989) for constructing the original model of change, which was developed from research conducted in large public organisations and SOEs. There was no need to construct 2nd-order themes for the context of change. Four out of the eight factors identified from the analysis of the content of change (see Table 6. 2) were grouped into two higher order themes, as they were thematically similar.

Categories in the model of Pettigrew et al. (1989)	1 st order themes that emerged from the data analysis in AERO (with corresponding sections in brackets)	2 nd Order Themes	Facilitates/ Inhibits Change
Content of change	Necessity of readiness (6.2.1) – F	Operational rationale	F
	Making sense (6.2.3) – F		
	Uncertainty (6.2.1) - I	Negative climate	I
	Unethical business operation (6.2.1) - I		
Process of change	Unity of purpose among personnel (6.3.1) - F	Leadership for change	F
	Trustworthiness of change agents (6.3.2) - F		
	Negotiation role of change agents (6.3.2) - F		
	Influential process owners (6.3.4) - F		
	Process owners to act as change agents (6.3.4) -F		
	Leading by example (6.3.4) - F		
	Communicating vision and benefits (6.3.2) - F	Realism of change	F
	Early disappointment avoidance (6.3.3) - F		
	Understanding requirements (6.3.5) - F		
	Bypassing bureaucracy (6.3.5) - F		
	Balance between illusion and reality (6.3.5) - F	Tactics of change	F
	Enhanced communication (6.3.1) - F		
	Focus on lean business processes (6.3.1) - F		
	Empowerment of personnel (6.3.3) - F		
Lateral thinking (6.3.3) - F			

Table 6. 4. Factors from the data analysis in AERO concerning the influence of AGP on change and 2nd order themes (F: facilitating factor to change; I: inhibiting factor to change).

All of the fifteen factors identified from the analysis of the process of change (see Table 6. 3) were grouped into three higher order themes, as they were thematically similar. The 2nd order themes were categorised according to whether they contained lower-order factors that

facilitated or inhibited change. This corresponds with the methodology of Miles & Huberman (1994) and Hunter et al. (2014).

The two higher order themes corresponding to the content of change and the three higher order themes corresponding to the process of change are discussed below:

- **Operational rationale**

The respondents in AERO recognised that there was a need to rationalise the company's operations. However, they expected to be informed of the reasoning behind the changes before supporting them (see 6.2.3). This means that change implementation needs to simply make sense to employees. Another need for rationalising the operations of the organisation was evident from the requirement to be ready in order to embrace and manage change, rather than trying to simply react to change (see 6.2.1). The employees argued that the company needed to be more effective and efficient to win orders. In other words, a proactive attitude was preferable to a reactive approach. The necessity of readiness was viewed as the degree of alertness to anticipate possible upcoming change, and to proactively respond. The operational rationale was considered to be a facilitating factor to change since all of the constituent 1st order factors were favourable to change.

- **Negative Operational climate**

Employees believed that if change cannot be avoided, then change should be directed towards creating an ethical business operation (see 6.2.1). The continuous change that originates from the organisational environment was viewed as an opportunity to transform the organisation in a way that it embraces ethical conduct at work. The respondents also believed that a large degree of uncertainty can be present when changes are in place, and familiarisation with this uncertainty is required (see 6.2.1). It was considered important to embrace uncertainty and feel brave about it, rather than trying to avoid uncertainty. The negative operational climate theme (generated from inhibiting 1st order factors to change) was categorised as an inhibiting factor to change.

- **Leadership for change**

Another major theme that emerged from the data was the required leadership for change. This was categorised as a facilitating factor for change. The respondents believed that process owners should possess the ability to influence the perceptions and the behaviours of others, and thus assume leadership roles for change (see 6.3.4). The respondents viewed process owners as potential change agents who were expected to take responsibility and

operate in a way that facilitates change within the organisation (see 6.3.4). It was evident that people are very cooperative with change agents who they hold in high esteem (see 6.3.2). Change agents were expected to be good negotiators and able to avoid conflicts of interest (see 6.3.2). Process owners were expected to lead change by practising whatever they were preaching, and thus lead by example (see 6.3.4). Those who were taking up the role of leader for implementing change were expected to help create a unity of purpose, particularly in times of crisis (see 6.3.1).

- **Realism of change**

Business process owners needed to have a clear understanding of the process requirements (see 6.3.5). In other words, they needed to have a clear view of what internal and external customers wanted and valued most. Change agents were expected to communicate the long-term vision and the anticipated benefits of implementing changes, in order to provide people with the motivation to support the change, providing the end result was beneficial and made sense (see 6.3.2). Making realistic predictions about the constraints imposed by bureaucratic rules, and taking appropriate action to manage such restrictions was viewed as very significant in implementing changes (see 6.3.5). Change agents were expected to have the ability to distinguish between realistic objectives for change and objectives that are almost impossible to achieve (i.e. illusion) (see 6.3.5). Respondents believed realistically some of the early attempts to implement change could fail, however this should not lead to disappointment (see 6.3.3). The realism of change theme was categorised as a facilitator to change, as it comprised supporting lower-order factors.

- **Tactics of change**

The data identified the need to adopt a tactical approach, which was a facilitating factor of change. Particularly nowadays, the Greek SOEs are under considerable pressure to change. Communication between the various stakeholders involved in the change is expected to be as effective and efficient as possible (see 6.3.1). Focusing on lean processes was also viewed as essential (see 6.3.1). This means that there should be a focus on the core capabilities and the minimisation of wasteful activities. Respondents felt that they needed to be empowered to have greater responsibility and freedom to act, in order to implement changes, particularly those that affect them (see 6.3.3). The data showed that lateral thinking could remove barriers to change (see 6.3.3). Employees could be empowered to find solutions to problems rather than just following orders.

6.4.3 Extension to Pettigrew et al.'s (1989) Model with AGP factors

Following the analysis of data and the generation of 2nd order themes, an extension to the model of change of Pettigrew et al. (1989) could be conceptualised. The objective was to answer the research question concerning the role of AGP in facilitating or inhibiting change in Greek SOEs. The analysis initially identified the factors of the context of change which were directly associated with the influence of AGP on CM. The factors that referred to the content and the process of change were generated from data collected in interviews and focus group discussions using the Socratic method. Following this method, the content and process of change were derived from the context of change.

The 1st and 2nd order themes were further evaluated in order to understand whether they could be considered as facilitating or inhibiting change in Greek SOEs. The researcher logically interpreted the underlying meaning of the data, in order to evaluate whether each factor was facilitating or inhibiting change. This was in line with the realism research philosophy (Fairclough et al., 2004; Jiang & Carpenter, 2013). This research philosophy attempts to symbolise a mind-independent truth or reality (Khleentzos, 2004). The method of categorising data for the Pettigrew et al. (1989) model assumes that the original data form an independent truth, yet, the model that emerges cannot be guaranteed to have general applicability (Aliyu et al., 2014).

The analysis shows that AGP plays a major cultural role in facilitating or inhibiting CM in Greek SOEs. The role of AGP can be visualised in Fig. 6. 1. The dotted line highlights the original model of change of Pettigrew et al. (1989), while the AGP extension to the model is shown underneath. The context, content, and process of change were considered in evaluating the influence of AGP on CM. The arrows between the context, content, and process denote the processual nature of change in the model of Pettigrew et al. (1989). This means that change can be a sequence of first understanding why change is needed, then negotiating what needs to change, and finally, formulating how to implement the change. The lines that connect the factors found in the data and those in the original model of Pettigrew et al. (1989) denote a thematic association that expands the original model of change, for the case of Greek SOEs.

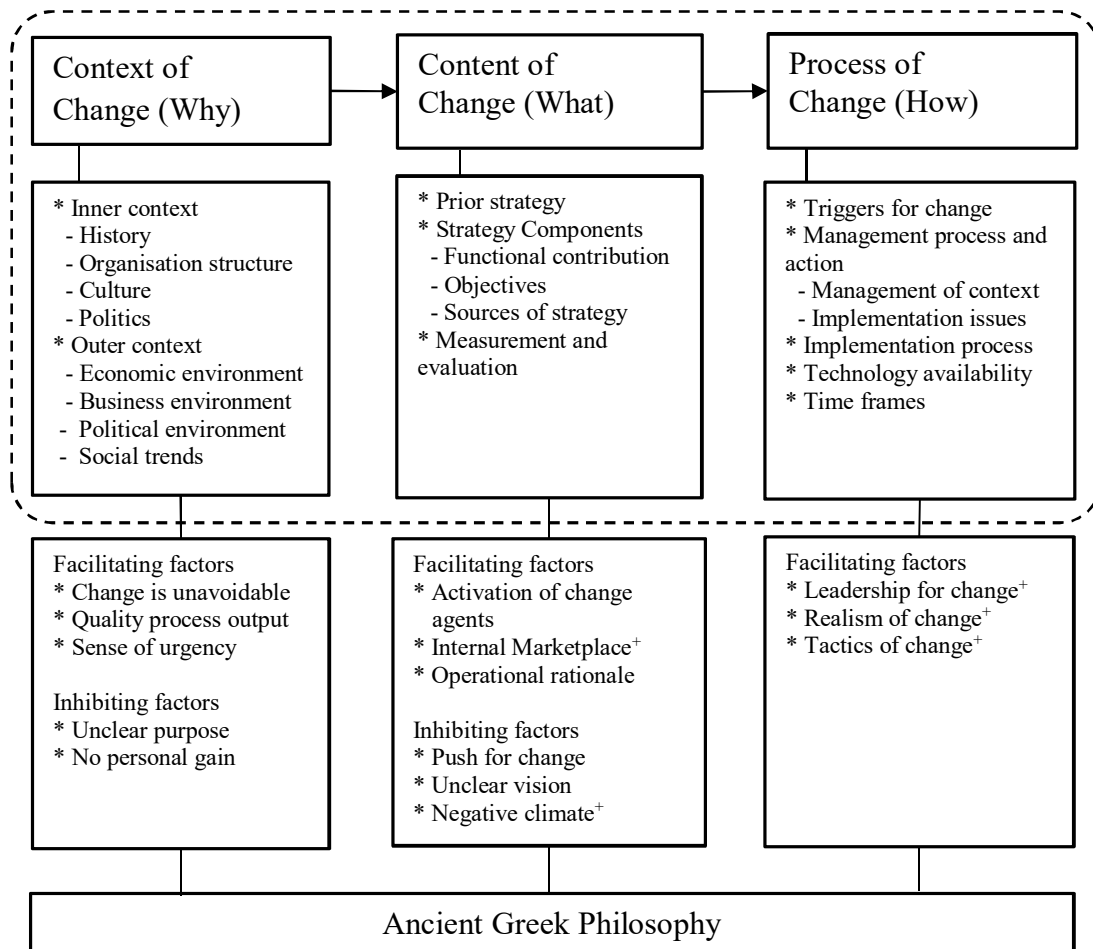


Fig. 6. 1. The role of Ancient Greek Philosophy in facilitating or inhibiting change in the Greek SOEs; the dotted line contains the original model of Pettigrew et al. (1989). The + symbol indicates 2nd-order themes.

- **Context of change factors that originate from AGP**

The original model of Pettigrew et al. (1989) viewed the organisation as a culture (i.e. a set of beliefs and values in the organisation). The belief that change was unavoidable was common among the personnel in AERO and had its roots in Ancient Greek Philosophy (see section 6.1). The respondents believed that the fact that change is unavoidable can facilitate change. The politics in Pettigrew et al.'s (1989) model dealt with the distribution of power within the organisation. A major political aspect in AERO was manifested in the requirement to have individual gains as a motivator to implement changes. The data showed that employees could not clearly see what personal benefit they would gain from the implementation of change. They could not understand what was the long-term purpose of change. Both of these factors could inhibit the implementation of change. The economic

environment in Pettigrew et al.'s (1989) model covered the national and international conditions including recessions. The economic crisis that was present and the pressure from the EU to implement changes in the Greek SOEs generated a sense of urgency that was viewed as a motivator for change. Pettigrew et al.'s (1989)'s business environment referred to the general conditions within the industry to which the company belongs. In the case of AERO, the main requirement by the aerospace industry was the delivery of high quality products and services (i.e. without defects, conforming to strict standards). The analysis showed that the high quality business process output in AERO could act as a facilitating factor in implementing change.

- **Content of change factors that originate from AGP**

Pettigrew et al. (1989) suggested that the prior strategic initiatives (or those currently in progress) of the organisation to implement changes contribute to the content of change in the organisation. The respondents in AERO (see section 6.2) indicated that one of the reasons for the unsuccessful previous efforts to implement change was the push from management to change rather than removing operational obstacles to change (e.g. bureaucracy and complexity). The objectives in the content of the model of Pettigrew et al. (1989) refers to the targets the change will achieve. These targets were perceived as AERO's long term vision of the organisation, which had to be connected with the small everyday changes. Respondents found the long-term vision of AERO unclear because it was changing as frequently as the government changed. Measurement and evaluation in Pettigrew et al.'s (1989) model includes the performance measurement indicators from the execution of business processes. Establishing an internal marketplace of business processes in AERO was believed to satisfy all the requirements of process performance measurement that could facilitate change. Respondents argued that the internal marketplace could help to view the process value as a variable with time. The value of each process is constant in the traditional BPM. However, the internal marketplace of processes sets a value for each process based on the current demand by the internal and external customer. Respondents believed that change agents were dormant in AERO and their activation could facilitate the implementation of change. The analysis showed that the management should rationalise the operation of AERO by rendering the change efforts meaningful and proactive, which could facilitate the participation of employees in the implementation of change. Respondents argued that the inability to embrace the uncertainty associated with change implementation and the perceived low levels of ethical conduct at work could create a negative psychological barrier inhibiting change efforts.

- **Process of change factors that originate from AGP**

An important factor of the process of change in the model of Pettigrew et al. (1989) is the management of the context. This refers to the way the organisation operates in order to satisfy the requirements of the environment and is influenced by the history of the organisation. The most relevant factor that was found in AERO was the leadership for change that could facilitate the implementation of change (see section 6.3). It involved the ability of process owners to influence the behaviours of their colleagues and act as change agents. They were expected to be trustworthy, to lead by example and to unify the employees. The model of Pettigrew et al. (1989) assumes that there are usually issues during the implementation of change (e.g. bureaucracy and resistance to change). The data showed that a way to overcome such implementation constraints was to adopt a 'realistic' approach. This means providing employees with an understanding of the process requirements and the long-term vision driving change. Bypassing bureaucracy and persistence in case of early failures in implementing change efforts were also contributing towards the development of a positive attitude towards change. The implementation process factor in the model of Pettigrew et al. (1989) involves the activities that each organisation executes in order to implement change. These activities were perceived as tactics of change in AERO. For example, using effective inter-departmental communication and dropping wasteful activities were found to be facilitating factors in change implementation. Furthermore, the empowerment of personnel to take individual responsibility for the changes was essential for successful implementation in AERO.

Chapter 7. Research Results about the Impact of Business Process Management on Change Management

The main objective of this chapter is to answer the second primary research question using the data from the inductive analysis. The implementation of change through the adoption of Business Process Management (BPM) is considered in this chapter. These findings will be used to extend Pettigrew et al.'s (1989) model of change and generate a new CM model applicable to Greek SOEs.

Data from unstructured interviews and participant observation in focus groups were analysed inductively. The sample consisted of 56 Directors (D) and 30 Process Facilitators (PF) in AERO S.A.

The second primary research question of this research project was:

BQ BPM-CM: How can change be implemented in the Greek SOEs through the adoption of Business Process Management?

Following the approach of Pettigrew et al. (1989), this primary research question was divided into three secondary research questions:

BQ BPM-CM1: What is the context of change in Greek SOEs? In other words, why is the change needed?

BQ BPM-CM2: What is the content of change in Greek SOEs? In other words, what needs to change?

BQ BPM-CM3: What is the process of change in Greek SOEs? In other words, how should the change be implemented?

The Socratic method of questioning was implemented during the interviews and the focus group discussions, in order to identify major linking factors between CM and BPM.

7.1 Context of Change in Greek SOEs

This section addresses one of the secondary research questions:

BQ BPM-CM1: What is the context of change in Greek SOEs? In other words, why is the change needed?

The findings from the data analysis are discussed in the following sections.

7.1.1 From a System of Procedures to a Process-Based System

The data showed that the transformation and replacement of the old system of standard operating procedures (SOPs) with an innovative and efficient business processes-based system was recognised by the participants as a major reason for change implementation in Greek SOEs. This migration from procedures to processes was imposed upon AERO mainly from the business environment, as a result of the governmental and EU initiative to improve the operation of the Greek SOEs. In this respect, BPM was viewed as a method of implementing change. The following dialogue, from a focus group discussion illustrates how this view was verbalised:

PF04: *“Why do you expect these changes to be implemented?”*

D38: *“It’s the law, you have to abide by it. The procedures need to go and business processes need to replace them.”*

PF04: *“Such legislation has been attempted in the past without much success.”*

R: *“Do you think the EU may have an important role in this case?”*

D38: *“It all originates from the EU and the creditors of the country. The pressure on the government is extreme this time.”*

(Observation: There is consensus among the participants that the external pressure for operational improvements in Greek SOEs may be the main reason for the successful implementation of the required changes)

7.1.2 Efficient Resource Allocation

One of the main reasons for change that emerged from the data was the efficient allocation and use of resources for business process actualisation. Resources were conceptualised either as tangibles (e.g. money, technology), or intangibles (e.g. free time for process modelling trials). Similar to what was discussed in the literature review chapter (see 3.3.4), resources were viewed as a potential input to business processes (van der Aalst and van Hee, 1996). However, business processes can also transform or generate resources as output that can even be used as input to other processes (Hofacker and Vetschera, 2001). The logical and efficient allocation of resources to processes is extremely important for the operation of AERO. The following extract from a focus group discussion illustrates this understanding:

PF23: *“We need to consider what kind of resources are needed for this process.”*

R: *“Why do you think allocation of resources is important?”*

PF23: *“There is no point in discussing about efficiency of a process if*

you don't use the resources efficiently."

D17: *"This is why we need to change things. To make them run more efficiently."*

PF29: *"We have to take into account that this process needs the input of components that are the output of another process."*

(Observation: Participants tend to realise that process efficiency requires the improvement in efficiency of the interlinked processes that either provide input, or use the output of the original process)

7.1.3 Avoidance of Value Conflicts

The analysis of the data showed that sometimes employees have different personal values compared to the values that the management perceives as important to the organisation (as was discussed in section 3.4.1 of the literature review). The employees believed that the implementation of BPM could help alleviate conflicts between corporate values and individual values. For example, employees may value empowerment for action that is meaningful more than they value adherence to bureaucratic procedures. On the contrary, the management may declare that bureaucratic procedures have a higher value to the organisation than the empowerment of personnel, because bureaucracy can presumably prevent unethical conduct at work (Dylag et al., 2013).

"Things that people mostly value here are health, social recognition, wealth, success and independence [...] Some of these values are personal and some aren't" (D13).

The question that was asked to the respondents was:

"Why is change required on a cultural level during the implementation of BPM?"

The respondents believed that value conflict is a cultural and internal political issue that can manifest during implementation of changes, particularly during business process improvement efforts. Consequently, employees can become cynical about their jobs and about the organisation itself, which can also lead to reduced operational effectiveness (Dylag et al., 2013). This detrimental effect can be particularly evident in newly recruited employees. Thus change is required so that value conflicts between the employees and the organisation can be mitigated.

"I have seen so many things over the years [...] You get all of these new recruits that are full of enthusiasm and ideals. Then, they spend a few years here and it's like a huge grinder of personal values. They

see that you don't get far by playing right. And then, the cynicism begins and then comes the don't-care-attitude" (D14).

7.1.4 Meaningful Determination of Sequence of Activities

During the data analysis, it was evident that the respondents were preoccupied with the aspect of process input / output. Many discussions indicated that there were concerns, particularly about the processes that were part of a chain of other processes that were providing input, or used the output of those processes. Similarly, within a process, it was often important to have constitutive activities that were logically providing output to be used as an input to the successive activities. Those activities were designed in a way that the beginning of one was dependent on the completion of another. The question that was asked to the respondents was:

"Why should successive activities in a business process be changed?"

The respondents believed that change in the sequence of activities is valuable when the new work flow is logical. The main requirement was to create sequential activities that were meaningful, and they were ordered with the aim of achieving the required process output.

"I own a process and I have divided it into activities and even further into tasks. I understand the whole situation much better when the work is structured so that when one activity is completed, the other one starts. It is logical for me and I can monitor the progress of work easily" (PF16).

The effective sequence of activities was viewed as value adding. The respondents wanted to make sure that there was a way of adding value to the process output, by executing linked activities, as if they were a chain of events.

"The concept of adding a bit of something at each step of a process is great. It is about making the end result have more value than when the process started. This concept makes me wonder why we have to do some work sometimes. Does it make the end result more valuable? [...] We need to change many things" (D28).

One of the most important outcomes of generating an effective sequence of activities in a process was the ability to evaluate the time and the cost required to execute the whole process that consisted of the linked activities.

"My biggest fight with others, when it comes to process management is about the cost and how long it takes to carry out each activity. It may be alright for most sections for things to take their time, but I can't accept that here. My client is like Cerberus [very demanding and strict] when it comes to money and time. They want the aircraft parts

to be in the box on time. My main problem is that I have to deal with central company services that serve all of the factories [of AERO]. They have their own pace and bureaucracy that makes processes look like spaghetti; going back and forth. I constantly have to ask for favours to take shortcuts. They need to set up their activities to have a simple and logical sequence so that we can all understand where we stand" (D16).

7.1.5 Value-Adding

The analysis indicated that there was an expectation for BPM to add value to the internal and the external outputs of the organisation. Consequently, it was expected that the change efforts in AERO would be accelerated. The question that was asked was:

"Why is change expected to accelerate after the development of the BPM value-adding capability?"

The respondents believed that BPM could stimulate internal competition between individuals and between departments to increase performance as measured by KPIs. They actually believed that BPM could introduce changes that could make AERO out-perform expectations.

"KPIs are catalytic for high performance [...] We start competing with each other and we come up with processes that are more effective than what our bosses ever expected" (PF29).

The respondents believed that value-adding can result from good process design. If the main goal of process improvement is value-adding, a sense of trustworthiness can emerge. This is mainly because process owners viewed themselves as goal driven, rather than influenced by internal organisational politics. Process owners in AERO are responsible for the governance of process performance and process change in accordance with the definition of Long (2012).

"When we redesign processes, we get carried away and simplify things too much. We assume that people can be totally trusted to follow the processes [...] The bosses don't agree with us on this and they think we are too naive. Well, other people have done it, so why shouldn't we think like that?" (PF19).

In order to add value to activities and tasks, process owners could identify the core value of processes in a similar way entrepreneurs can identify the value of products and services in free markets. Thus, the respondents believed that BPM could help the company to change its behaviour to become market oriented, both internally and externally.

"Some change agents run small businesses outside [of AERO], as an

additional private activity for them. There is controversy over that issue over the years, but we are not very strict about this. The point is that these people have proved that they have entrepreneurial talents and market orientation. This means they can anticipate what their customer will value in their service. This is the capability that I want them to apply here; to anticipate what the internal customers will value in the processes” (D28).

7.2 Content of Change in Greek SOEs

This section addresses one of the secondary research questions:

BQ BPM-CM2: What is the content of change in Greek SOEs? In other words, what needs to change?

On many occasions, the factors that emerged from the dialogues for the context of change (see previous section) generated questions about the content of change.

7.2.1 Establishment of Business Processes

The analysis of the data indicated that one of the major reasons driving change in SOEs was the external pressure to migrate from an operation system based on procedures towards one comprising business processes (see 7.1.1). The follow up question that was asked to the respondents, in order to explore the subject further was:

“What needs to change, so that the replacement of procedures-based system by process-based system can be facilitated?”

It was concluded that the perception about the essence of the organisation needed to change. AERO was merely viewed as a money-generating organisation that did not care about the creation and sustainability of a prestigious corporate image that is highly esteemed in the society. This organisational image needed to change so that employees felt that they worked for a prestigious Greek institution (i.e. an organisation that is highly esteemed in the society).

“This entire situation with processes etc. is great. I have no doubt there are some companies that really benefit from that. But here, we need to solve some basic problems before getting there [One of those things is] the prestige and essence of the company. Do you think it is fine to work for a company that all it cares about is making money? [...No it isn't...] The company needs to be a highly regarded institution in the minds and the hearts of everyone. Do you think

people like being little bits and pieces of a large money making machine? [...No they don't...] When we change that, then it will be interesting to talk about high level things like BPM. Consider this: If you live in a hut, what's the point of hanging precious decorations on the wall?" (D38).

The respondents indicated that working in an organisation that cultivates trustworthy relationships is important for the success of moving from a management system that uses operating procedures into a BPM system. In that sense, trust at the workplace, both towards management and between colleagues is considered a basic building block for change and implementing BPM.

"[...] the procedures need to go. [Business] Process management will help. But how can you do all these changes if you can't trust management? [...] You can't even trust the guy working next to you for decades. [...] the next moment a new government goes up, he may have a friend and then get to act like a boss. No matter what you used to agree with can now vanish in a moment" (PF02).

A performance related pay system that takes into account individual contributions to implementing effective process changes was suggested. The establishment of a monetary reward based incentive for process implementation and a fair bonus scheme were considered prerequisites for the acceleration of replacing the old system of procedures.

"I want to change many processes. But if I do, my personal gain is doubtful. The only thing that will make me move fast and decisively right now is some sort of money reward for the processes that I take care of. What's the point otherwise? Everybody gets [pre-arranged] salaries and bonuses at the end of the year, based on the years of service" (PF24).

The operation of an effective document management system was considered important for the facilitation of the move from the well-established management system of documented procedures towards the adoption of the new business processes based system. Such an internal document handling system could contribute to the elimination of bureaucracy and acceleration in the implementation of effective business processes, through IT powered solutions.

"I am handling a lot of internal forms and I believe this is the most problematic aspect of business processes right now. The bureaucracy behind the approvals and the options in those forms is unbelievable. I wish the whole system was computerised somehow. Things would be so much faster" (PF20).

7.2.2 Reduction of Resistance to Change

The data analysis showed that resistance to change was widespread among AERO's employees. The reduction of such resistance to change was considered a key factor for the facilitation of business process implementation and improvement. The following extract from a focus group discussion illustrates this belief more clearly:

PF14: *"This new process we've just designed will create a lot of turmoil."*

D22: *"I agree; it takes special handling to be communicated among personnel and avoid local revolutions."*

PF34: *"No matter what we do, the personnel will resist suggested changes"*

(Observation: Resistance to change is believed to be a given in AERO, e.g. not implementing the management decisions)

PF14: *"We cannot blame the personnel for that, because they have simply lost their trust towards everything and everybody [in AERO]."*

7.2.3 Operational Effectiveness

The research participants considered it necessary to implement changes in business processes in AERO, so that operations could be more effective. The question that was asked to respondents was:

"What needs to change in the implementation of business processes so that AERO operates more effectively?"

The respondents believed that empowerment of process responsible teams could provide freedom to take action to implement organisational change, without having to go through many levels of approval under the auspices of BPM. Such empowerment was expected to generate increased effectiveness of operations. However, such freedom for action should not be limitless and uncontrolled, otherwise chaotic situations could emerge.

"Process teams need to have the power to change things [for AERO] to be effective [...They] should have freedom to try new things and fine tune their processes. You cannot give them complete freedom, because you don't want to have chaos. They may even start conflicting between them and if they bring too many changes too fast, it can be a catastrophe. The freedom must have boundaries" (D10).

Matching individuals' talents and capabilities with corresponding processes that required improvements was expected to generate effective process outputs. However, a

widespread belief was that employees with the right capabilities are not given the chance to improve the corresponding processes.

"Many people have asked their political friends from outside, to transfer them internally, to posts they think provide an easier life, or where they are close to other political friends. What you end up with is the wrong people to do jobs they can't do and don't want to do. How will the typical BPM approach work under these circumstances?" (PF01).

The respondents considered the understanding of organisational subcultures essential. Particularly, they believed that it was important to recognise the subcultures that were detrimental to operational effectiveness. On many occasions, it was expressed that despite the official way of doing things, there was a strong cultural element of personal relationships that were operating in the background.

"There are two types of culture here. One is about personal relationships. Many have very close friends and even families and marriages exist here. Once someone gets some power, creates a preferential environment and is surrounded by loyal people like a royal court. Those outside the court face an authoritarian and distanced attitude. This is the second culture that puts barriers even to the best employees" (PF18).

7.2.4 Top Management Commitment

Dylag et al. (2013) argued that management can often perceive some organisational values such as authority, obedience, loyalty, and sacrifice to be the most important ones in the organisation. On the other hand, employees can individually perceive values such as health, responsibility, independence, and creativity to be important for their work. Such a difference is viewed as a conflict between the official organisational values and individual values (Maslach et al., 2008). Respondents believed that change is required, so that value conflicts between the employees and the organisation can be eliminated (see 7.1.3). The follow-up question that was asked was:

"What needs to change in business process implementation, to avoid value conflicts?"

The respondents believed that top management commitment was the most important factor in BPM implementation, so that value conflicts could be avoided. The organisation's top management was expected to commit to implementing BPM in the best possible manner, and remain committed to it, regardless of difficulties.

"I know that everybody thinks that directors are not committed to the use of BPM. I want to reassure you I am a believer of BPM. I have seen its power in large foreign aerospace companies. I will help anybody who wants to work in this direction. I am not sure for how long I will have this power though" (D17).

The respondents believed that top management had the capability to commit to the transformation of the organisation, so that it could be regarded as a highly prestigious institution (i.e. esteemed in the society). This was expected to be a key factor for the elimination of value conflicts.

"I know that most problems begin from the top [... AERO] didn't use to be like that. For many years at the beginning of the company, people used to think of us in a special and prestigious way. To get things back on track, we [the management] need to concentrate and stick to that cause and pass on the message to the public too" (D04).

Respondents believed that top management should demonstrate the same attitude towards BPM, as change agents did. This attitude was expected to be positive, proactive, innovative, and showing determination for change. The respondents anticipated that if top management adopted this approach, then value conflicts could be substantially reduced, or possibly eliminated.

"... I am definitely sure I act as a change agent. Once I set up my mind to change something, I am not letting go, until it happens. Most of the times though, I realise that when I change something, something else needs to change and there I go again" (D46).

7.2.5 Internal Marketing of Processes

The respondents believed that the empowerment of teams that were responsible for business process improvements could provide the necessary freedom to take action to implement organisational change (see 7.2.3). The respondents believed that empowered employees tend to promote the value of the processes they own in the organisation to ensure their survival. They believed that the concept of the internal marketing of processes could be a useful way of promoting the value of process output. The underlying assumption was that some processes should be discontinued because they were only contributing to the bureaucracy in the organisation (i.e. little or no value). The discontinuation of wasteful processes could lead to the redesign and improvement of existing processes. However, the data could not provide a clear answer about the impact that the discontinuation of processes would have on interrelated processes. The participants wanted to treat business processes as

internal services to be marketed in the same way they would be marketed in the free market. The management was expected to think like a marketer when dealing with people that are expected to implement change. The following sample dialogue illustrates the argument, during a focus group discussion:

PF19: *“You cannot avoid giving more power to the teams that are responsible for process improvement. It doesn’t work otherwise.”*

R: *“Can you explain a bit more?”*

PF19: *“You have to realise that the process output does not have the same value to everyone and every time. Existence of a process is a matter of survival.”*

PF26: *“I agree, if a process output has no value, it cannot survive.”*

PF19: *“The teams that are supposed to improve their processes know what needs to be done to make them feasible and valuable.”*

D10: *“The way I see it is that processes are like services that you have to promote and sell when you work in the open market. We have to view processes like services that you market inside the company.”*

R: *“What needs to change for marketing processes internally?”*

PF26: *“Process owners should have more power for decisions [...] they will find ways to transform and promote the strongest points of their processes to convince management to implement them.”*

D10: *“Also, it is up to us (management) to decide which processes are needed, based on the value of their output.”*

(Observation: Participants favour the idea of internal marketing of processes, but are pessimistic about its implementation under the current tight government control of Greek SOEs)

One of the basic concepts in the internal marketing of business processes is the promotion and ‘sale’ of a process that is collectively generated by a process team (i.e. bottom-up approach) to the management for approval of implementation (Raquif and Ahmed, 2000). This is a different approach to management imposing business processes for personnel to implement (top-down approach). The marketing approach to business processes allows competition with other potential processes (Varey and Lewis, 1999). Management can choose to adopt the process that adds the highest value to the organisation (Keleman, 2004). The topic of internal marketing of business processes was explored further. The respondents were asked:

“What needs to change for internal marketing of processes to be implemented?”

The governmental control over the operation of the Greek SOEs was a major restricting factor that needed to change.

“[AERO] and the rest of the Greek SOEs are subject to strict control by the government. I am talking about official and unofficial control.”

This needs to change to allow more innovative management systems to be implemented” (D2).

The respondents wanted to have an understanding of the most valuable activities and tasks of business processes before being able to promote the value of the process output. Similarly, the most significant aspects of process improvement needed to be clear before embarking on a marketing mode for processes. The respondents believed that internal marketing could reveal which processes needed to change first. However, the data could not prove that the marketing approach was the most effective method of identifying the most critically important processes to change. The respondents argued that priority should be given to changing the most valuable or the most problematic aspects of processes.

“Sometimes, in discussions about changing processes, the hottest topics get ignored; it's like having a volcano pouring lava right there in the middle of the room, yet nobody in the room says anything about it [...] Even if the lava is about to touch you, you don't say anything about it [...] Shouldn't we address the most problematic areas first and then care about the peripheral problems?” (PF12).

The respondents believed that the value of process output should be the main criterion for process adoption, rather than seemingly random management decisions. Determining the survival of a process as a function of its value was expected to be a trust factor between employees and management. In other words, the desirability of processes could be used to build a framework to enable employees to trust and support management decisions.

“I want to be able to trust the person next to me. If I am dealing with a process that I know it has a high value [in AERO], I will do my best to convince others to adopt it. There is no catch or trick hidden behind that [...] If management makes decisions based on criteria like that, you can trust them” (PF08).

The data analysis indicated that it was important to create an information system that was straightforward and supportive to the implementation of an internal marketing of processes. The decisions about the IT infrastructure and information systems applications should facilitate the implementation of changes in the most valuable processes in the organisation.

“It is embarrassing to say that [AERO] has spent so much money on IT and most of the times I cannot understand what purpose it serves. It definitely solves some local problems, but altogether doesn't seem to have a general direction [...] Perhaps, the key is the value of the processes, because the most useful processes will dictate the required IT too” (D51).

7.3 Process of Change in Greek SOEs

This section addresses one of the secondary research questions:

BQ BPM-CM3: What is the process of change in Greek SOEs? In other words, how should the change be implemented?

Following the data collection, the opinions of the research participants were analysed and are discussed in this section. On many occasions, the factors that emerged from the dialogues for the context or the content of change (see previous sections) generated questions about the process of change.

7.3.1 Reduction of Resistance to Change

The data analysis showed that resistance to change needed to be reduced to increase the chances of successful BPM implementation (see 7.2.2). The follow up question that was asked to the respondents during interviews was:

“How can resistance to changing business processes be reduced?”

Focusing on core organisational processes that cross departmental boundaries and mostly serve the external customer's needs should be the centre of attention for a change programme. The respondents appreciated the significance of core processes, without which the organisation might not even be able to survive. They argued that resistance to changing core processes should to be minimal, if it was proven that the change could lead to improved results.

“[...] starting from support and insignificant processes can help you learn how to overcome barriers to change more easily. But let's be realistic; if you want to be taken seriously into account, you have to deal with the core processes. [...] These are complex and unpredictable. If you want to prove your worth, you need to improve those. The sources of resistance will have to fall back, in the face of such a big success” (D11).

The respondents believed that seeking to change all aspects of the organisation too fast should be avoided. Instead, changes in business processes should take place in a gradual manner.

“Have you ever thought what it is like wrestling with a huge dinosaur? This is what you will experience if you try to change too many things too quickly here. You stand no chance if you try to force changes this way” (PF09).

The respondents strongly believed that promotion and career advancement should be

based on individuals' talents and the ability to produce the required results. Consequently, it was expected that the adoption of a meritocratic system of promotions would contribute towards the minimisation of resistance to change.

"What we have is supervisors and managers that got their chair for all the wrong reasons. Then, they demand their subordinates to work on concepts such as BPM. Don't you see the oxymoron there?" (PF19).

7.3.2 Resource Allocation Improvement

As discussed in section 7.1.2, the data showed that the way of allocating resources to support business processes needed to be more efficient. The follow up question that was asked to respondents was:

"How can change be implemented, so that resources are allocated efficiently?"

The respondents perceived the departments within AERO as units surrounded by functional boundaries that did not allow the efficient communication and cooperation with other departments. The communication concerning resources for process implementation between departmental functions needed to be more efficient in order to increase operational efficiency. On many occasions, departments had the complete control of resources that were under their respective departmental budget control. The respondents believed that the resources that could be used for executing business processes should be viewed as belonging to the organisation as a whole, and not owned and controlled by each directorate or department only. For example, physical resources such as equipment and consumables required for the execution of business processes would be accessible to everybody in the organisation.

"We have this machine here that we use for testing helicopter engines and it was once broken. It took 3 weeks to get somebody here to fix it. In the meantime, we had orders that had to be fulfilled. There is only one other machine that can do the job and is owned by another directorate. We asked them and they allowed us to use it. That was all fine. What was a nightmare was how to transfer the cost for consumables, operator's time etc. from one directorate to another. Settling the accounts took twice the time that it took to fix our machine. The other directorate was in great difficulty. They couldn't charge their customer with the correct costs because our job was interfering" (PF24).

The data showed that individual responsibility in handling resources for process

execution was considered to be a facilitating factor for the development of efficient business processes. Such practice could ensure the most efficient usage of resources.

"There is a lot of arguing about resource management and responsibility here. Take this example of technical drawings reproduction. The activity owners are trained to use the machines and they want to be responsible for those machines, while they use them. They say this speeds up their process. The reproduction section leader disagrees. He wants to have responsibility of machine operation, because he is also responsible for major maintenance. Who is right?" (PF03).

The respondents believed that priority of resource allocation should be given to the highest value processes and to those that were critical in adding value to the process chain. The data showed that such prioritisation of resources could increase the efficiency of business process implementation.

"In our directorate, we have completed process mapping to a very high degree and we said: take a look at this. Some activities are way more important than others. Our operation wouldn't survive if they didn't exist. They are the most valuable processes and we need to give them priority when it comes to resources" (PF23).

7.3.3 Top Management Commitment Manifestation

The data analysis in section 7.2.4 showed that top management commitment was the most important factor in successful BPM implementation. The avoidance of value conflicts was also considered by respondents to be very important. Maslach et al. (2008) referred to value conflicts as the difference between the values that the management might recognise as important (e.g. authority, obedience, loyalty) and the values that employees might recognise as important (e.g. health, responsibility, independence, creativity etc.) The follow-up question that was asked to the respondents was:

"How can the change be actualised for top management to be committed to business process implementation?"

The data showed that the top management was expected to take all necessary measures to ensure the organisation's survival, by harmonising the operations with the requirements of the business environment. If there were external pressures (i.e. from the customers) for change through process improvement, then management should adhere to that.

"In every management meeting that I go to, there is somebody reminding about the requirement to become competitive and free market oriented. They don't give any practical solution how to do that.

I urge the other directors to give emphasis on internal processes. They tell me this is difficult and it will take time. Well, there are no magic solutions. How do you expect to become market oriented without committing to process improvements?" (D32).

Respondents believed that removing bureaucracy should be a vital element of top management's role. They argued that it was necessary to stop the political intervention and reduce the bureaucratic regulations, when radical changes in processes were required, so the change process could continue uninterrupted.

"Bureaucracy is such a huge barrier, not only for AERO, but for the whole country. I guess, if you want to change the bureaucracy [in AERO], you first need to change the whole country" (PF10).

The data indicated that top management should be committed to reinstate and maintain trustworthiness at work. Respondents believed that employees could stay motivated for conducting processes improvements, when they could trust management.

"To put this simply: people do not trust management and they have stopped trusting the union any more. They don't even trust their colleagues. How do you want to implement process improvements if nobody trusts anybody? Management has to show how much it believes in BPM in practice, not just words" (PF15).

7.3.4 Transforming the Corporate Image

The data analysis in section 7.1.1 showed that the transformation of the old system based on standard operation procedures into a new business processes-based system was a method for implementing change in the Greek SOEs. This transformation from procedures-based operation to processes-based operation highlighted a factor of the context of change (i.e. the reason to change). Following the Socratic method, a follow up question was asked to investigate the content of change (see section 7.2.1):

"What needs to change, so that the replacement of procedures-based system by process-based system can be facilitated?"

The respondents expressed the need to be part of an organisation that is considered as something more significant than simply a company that makes money. There was a strong desire to have a feeling of being part of an institution that is important in the society. Once again, following the Socratic method, a follow up question was asked to investigate the process of change:

"How can the organisation become a highly esteemed institution in

the society?"

The respondents believed that the implementation of BPM required everyone to demonstrate self-discipline. The respondents argued that the management could not impose BPM implementation without a coherent strategy which required each employee's commitment to implementing process improvement.

"The perception of the public is not the best about us right now. [Employees] are considered lazy, but we aren't. We need to be self-disciplined" (PF05).

There was a widespread view among the respondents that the management of AERO was constantly concentrating on short term purely financial benefits rather than medium to long term benefits, when it comes to process improvements. It was necessary for management to understand the significance of BPM's impact on the long-term operation of the organisation. The respondents believed that this could help to transform the image of AERO from being a money generating machine to being regarded as an ethical organisation. The underlying assumption was that an organisation that only cares about profit could easily disregard the interests and well-being of its employees and society.

"Every management group concentrates on financial benefits for the next couple of years, because they know they probably won't be at their position for much longer. There should be a long-term plan that looks at other things such as integrating with the community and internal culture; it should not be all about money" (PF23).

The respondents argued that the personnel required training to acquire new skills (e.g. process design techniques, IT, automation systems, etc.) in order to implement BPM. This would allow them to implement operational improvements and help change the public image of the organisation from being a financial burden to the society to being a valuable institution in the society.

"I think BPM provides a great opportunity to help [training for new skills]. If we train people in modern systems and processes, negative perceptions [about AERO's image] will change. All of the colleagues get a lot of technical training to keep up with technical advances. If they get this sort of management training they can realise that [AERO] doesn't want to operate using ancient management systems and processes" (D41).

7.4 Summary of Results

Pettigrew et al.'s (1989) model of change was adopted to explore how Business Process Management (BPM) could be an enabler for implementing Change Management (CM) in the Greek SOEs. In the case of AERO, CM was regarded as the central issue to assist the company to meet customer requirements. The inductive research explored the factors of BPM that can help bring about change in Greek SOEs through process improvement. The main objective of this chapter was to analyse the data to answer the second primary research question:

BQ BPM-CM: How can change be implemented in the Greek SOEs through the adoption of Business Process Management?

Following the approach of Pettigrew et al. (1989), the above primary research question was divided into three secondary research questions:

BQ BPM-CM1: What is the context of change in Greek SOEs? In other words, why is the change needed?

BQ BPM-CM2: What is the content of change in Greek SOEs? In other words, what needs to change?

BQ BPM-CM3: What is the process of change in Greek SOEs? In other words, how should the change be implemented?

7.4.1 Original Grouping of BPM Factors

In order to answer the above research questions, the Socratic method of questioning was implemented during the interviews and the focus group discussions. The main factors that were explored during the data analysis are summarised in the three following tables.

Factor	Description
Processes replace procedure-based operation system	The migration from a procedure-based operation to business processes is imposed by the organisational environment (7.1.1)
Efficient resource allocation	The efficient allocation and use of resources can result from business process actualisation (7.1.2)
Avoidance of value conflicts	BPM can help alleviate conflicts between corporate values and individual values (7.1.3)
Elimination of job burnout	The phenomenon of employees becoming cynical about their jobs and about the organisation itself can be mitigated (7.1.3)
Meaningful succession of activities	Activities that constitute a process can logically provide output to be used as an input to the successive activities (7.1.4)
Cost and time optimisation	It is feasible to evaluate the time and the cost required to execute the whole process that consists of linked activities (7.1.4)
Value-adding activities and processes	Processes can be designed to have constitutive activities that add value to the process input and generate higher value output (7.1.5)
Internal competition	Internally cultivated competitive spirit can accelerate changes (7.1.5)
Trust at work	If the main criterion for process improvement is adding value to the operations, a trustworthy workplace can be established, and even outperform expectations (7.1.5)
Focus on core value of processes	BPM can help the company change towards market oriented behaviour by understanding the core value of its processes (7.1.5)

Table 7. 1. Factors of BPM categorised under the context (i.e. why) of change for the Greek SOEs.

Factor	Description
Organisation as a highly esteemed institution in society	Employees want to be part of an organisation that is considered as something higher than simply a company that makes money; they want to be part of an institution that is important in the society (7.2.1)
Trustworthy relationships	Trust at the workplace, both towards management and between colleagues is considered a basic building block for change (7.2.1)
Monetary reward based incentive and fair bonus scheme	A performance related pay system that takes into account individual contributions for effective changes, and a bonus scheme that is allocated to people, according to their contribution to process changes is needed (7.2.1)
Document management	Elimination of bureaucracy and acceleration of process completion through IT based internal document handling (7.2.1)
Reduction of resistance to change	The reduction of resistance to change is needed for effective BPM (7.2.2)
Empowerment of BPM teams	Empowerment of process responsible teams is needed to provide freedom to take action to implement organisational change, avoiding many levels of approval (7.2.3)
Talents matching	Matching individuals' talents and capabilities with corresponding process improvements can generate effective process outputs (7.2.3)
Dual culture control	Management of organisational subcultures that are detrimental to operational effectiveness (7.2.3)
Top management commitment	Top managers need to commit to implementing BPM to the best possible manner, and also commit to the transformation of the organisation, so that it can be regarded as a highly esteemed institution in society (7.2.4)
Adopt change agent attitude	This attitude is expected to be positive, proactive, innovative, and showing determination for change (7.2.4)
Internal marketing of processes	Business processes are expected to be treated as internal services to be marketed, in the same way they would be marketed in the free market. The management is expected to think like a marketer, when dealing with people that are expected to implement change (7.2.5)
Reduction of government control	The governmental control over the operation of the Greek SOEs is a major restricting factor that needs to change (7.2.5)
Process value as a trust factor	The desirability or value adding capability of processes is believed to build a framework of trustworthiness and an unquestionable reference point of management decisions (7.2.5)
Meaningful information system	Selection and operation of IT infrastructure should facilitate the highest value-adding processes in the organisation (7.2.5)

Table 7. 2. Factors of BPM categorised under the content (i.e. what) of change for the Greek SOEs.

Factor	Description
Prioritisation of processes	Processes that cross departmental boundaries and mostly serve the external customer's needs should have priority in a change programme (7.3.1)
Gradual change through BPM	Avoiding to bring about change on all aspects of the organisation too fast (7.3.1)
Meritocracy	Promotion and career advancement needs to be based on personal talents and the ability to produce required results (7.3.1)
Breaking interdepartmental barriers of resource ownership	Assuming resources are owned by the organisation, as a whole, and not only by each directorate or department; the aim is to give wider access to resources (7.3.2)
Personal responsibility over resources	Assuming individual responsibility of handling resources in process execution with the aim to make sure the most efficient usage takes place (7.3.2)
Prioritisation of resources	Giving priority of resource allocation to the highest value processes and those that are critical in adding value in the process chain (7.3.2)
Harmonisation with the organisational environment	The top management is expected to take all necessary measures to ensure the organisation's survival; if the environment pushes for change through process improvement then management should adhere to that (7.3.3)
Bureaucracy elimination	Bureaucratic interference from the government should stop; this is particularly important to allow radical change implementation (7.3.3)
Self-discipline	It is each individual's will to maintain self-discipline for process improvement (7.3.4)
Long-term impact of BPM	The management should have the ability to understand the significance of BPM's impact on the long-term operation of the organisation, and not just the short-term impact (7.3.4)
Training for new skills	The organisation should provide employees with the required knowledge and training to participate in BPM (7.3.4)

Table 7. 3. Factors of BPM categorised under the process (i.e. how) of change for the Greek SOEs.

7.4.2 Data Structure

Some of the factors that emerged from the data analysis were grouped into 2nd-order themes following the methodological approach of Corley and Gioia (2004) and Gioia et al. (2012), in order to generate a conceptual model of change in the Greek SOEs. The construction of the data structure is shown in Table 7. 4. The grouping of 1st order factors into higher order factors was implemented in a similar way to that described in chapter 6.

Categories in the model of Pettigrew et al. 1989	1 st Order Themes that emerged from the data analysis in AERO	2 nd Order Themes	
Context of change	Avoidance of value conflicts (7.1.3)	BPM facilitating culture	
	Elimination of job burnout (7.1.3)		
	Focus on core value of processes (7.1.5)	Value-adding criterion	
	Trust at work (7.1.5)		
	Value-adding activities and processes (7.1.5)		
	Internal competition (7.1.5)	Operational efficiency	
	Processes replace procedure-based operation system (7.1.1)		
	Efficient resource allocation (7.1.2)		
	Meaningful succession of activities (7.1.4)		
	Cost and time optimisation (7.1.4)		
Content of change	Top management commitment (7.2.4)	Enhanced competitiveness	
	Reduction of government control (7.2.5)	Information Systems	
	Document management (7.2.1)		
	Meaningful information system (7.2.5)	Short-term objectives	
	Adopt change agent attitude (7.2.4)		
	Empowerment of BPM teams (7.2.3)		
	Talents matching (7.2.3)	Long-term objectives	
	Organisation as a highly esteemed institution in society (7.2.1)		
	Trustworthy relationships (7.2.1)		
	Reduction of resistance to change (7.2.2)		
	Dual culture control (7.2.3)		
		Internal marketing of processes (7.2.5)	Process value and rewards
	Monetary reward based incentive and fair bonus scheme (7.2.1)		
Process value as a trust factor (7.2.5)			
Process of change	Meritocracy (7.3.1)	Operational principles	
	Harmonisation with the organisational environment (7.3.3)		
	Bureaucracy elimination (7.3.3)		
	Self-discipline (7.3.4)	Resource Management	
	Prioritisation of resources (7.3.2)		
	Breaking interdepartmental barriers of resource ownership (7.3.2)		
	Personal responsibility over resources (7.3.2)		

Table 7. 4. Factors from the data analysis in AERO concerning the influence of AGP on change and 2nd order themes

The themes that emerged from the data analysis are discussed below:

- **BPM facilitating culture**

The employees in AERO believed that the implementation of BPM could help alleviate conflicts between corporate values and individual values (see 7.1.3). The respondents believed that value conflict is a cultural and internal political issue that can manifest during implementation of changes, particularly during business process improvement efforts. They argued that the implementation of BPM could reduce cynicism at work and thus reduce job burnout (see 7.1.3).

- **Value-adding criterion**

The respondents believed that process improvements by adding value to the internal or external customer can create a sense of trustworthiness at work. This is mainly because process owners viewed themselves as goal driven, rather than influenced by internal organisational politics (see 7.1.5). In order to add value to activities and tasks, process owners could identify the core value of processes in a similar way entrepreneurs can identify the value of products and services in free markets. Thus, the respondents believed that BPM could help the company to change its behaviour to become market oriented, both internally and externally (see 7.1.5). The respondents believed that BPM could stimulate internal competition between individuals and between departments to increase performance by using KPIs (see 7.1.5).

- **Operational efficiency**

The data showed that the transformation and replacement of the old system of SOPs with an innovative and efficient business processes-based system could result in operational improvements in Greek SOEs (see 7.1.1). One of the main reasons for change that emerged from the data was the efficient allocation and use of resources (e.g. money, technology, man hours) for business process actualisation (see 7.1.2). The respondents believed that change in the sequence of activities is valuable when the new work flow is logical. Thus, aiming for a meaningful succession of activities during process design or improvement could increase the operational efficiency of the organisation (see 7.1.4). The respondents argued that BPM could improve the forecasting of the time and the cost required to execute a process and subsequently optimise process actualisation and improve operational efficiency (see 7.1.4).

- **Enhanced competitiveness**

The respondents in AERO argued that the top management should commit and remain committed to BPM implementation, regardless of difficulties (see 7.2.4). The governmental control over the operation of the Greek SOEs was a major restricting factor that needed to change. BPM could help show that the SOEs were capable of implementing improvements that could make the organisations more competitive, without any intervention from the government (see 7.2.5).

- **Information Systems**

The analysis indicated that it was important to create an information system that was straightforward and supportive to the implementation of an internal marketing of processes. The decisions about the IT infrastructure and information systems applications should facilitate the implementation of changes in the most valuable processes in the organisation (see 7.2.5). The respondents considered the operation of an effective document management system important for the facilitation of the move from the well-established management system of documented procedures towards the adoption of the new business processes based system. This was an IT powered solution that could accelerate change implementation (see 7.2.1).

- **Short-term objectives**

The top management should adopt the change agent attitude (i.e. being positive, proactive, and innovative towards change) without further delays (see 7.2.4). The respondents believed that empowerment of process responsible teams could provide freedom to take action to implement organisational change, without having to go through many levels of approval (see 7.2.3). The participants in AERO emphasised the importance of matching individuals' talents and capabilities with corresponding processes that required improvements (see 7.2.3).

- **Long-term objectives**

AERO was viewed as a money-generating organisation that did not care about the creation and sustainability of a prestigious and esteemed corporate image. Even if it takes a long time, the current organisational image should change so that employees could feel part of a highly esteemed Greek institution (7.2.1). The data revealed that resistance to change was widespread among AERO's employees. Reducing resistance to change was considered a key

factor for facilitating business process implementation and improvement (see 7.2.2). It was important to recognise that some of AERO's subcultures could be detrimental to operational effectiveness. On many occasions, there was a strong cultural element of personal relationships that were operating in the background. These subcultures needed to be recognised and managed (see 7.2.3). The data showed that one of the long-term objectives in AERO should be the implementation of an internal marketing of processes, mainly because it could clarify which processes were actually adding value in the operation of the organisation (see 7.2.5).

- **Process value and rewards**

The respondents suggested the establishment of a performance related pay system that takes into account individual contributions to implementing effective process changes. The establishment of a monetary reward based incentive for process implementation and a fair bonus scheme were considered prerequisite for implementing change (see 7.2.1). The respondents believed that the value of process output should be the main criterion for process adoption, rather than seemingly random management decisions. Determining the survival of a process as a function of its value was expected to be a trust factor between employees and management (see 7.2.5).

- **Operational principles**

The data analysis indicated that there are certain principles and practices that need to be present in the organisation for the successful implementation of change. Promotion and career advancement should be meritocratic rather than political in order to contribute towards the minimisation of resistance to change (see 7.3.1). Top management was expected to take all necessary measures to ensure the organisation's survival, by harmonising the operations (e.g. via process improvements) with the requirements of the business environment (see 7.3.3). Removing bureaucracy should be a principal commitment of top management (see 7.3.3). The respondents believed that process improvements required everyone to demonstrate commitment and self-discipline, simply because it was not possible to make anyone implement changes against their will (7.3.4).

- **Resource management**

A major factor of change that emerged from the data was the effective and efficient management of resources for process actualisation. The prioritisation in resource allocation was considered key in optimising the implementation of business processes (see 7.3.2). The

respondents stated that priority of resource allocation should be given to the highest value processes and to those that are critical in adding value in the process chain. Even though resources could be under respective departmental budget control, they should be viewed as belonging to the organisation as a whole and should be accessible by everybody in the organisation (see 7.3.2). Individual responsibility for handling resources in process execution was considered to be a facilitating factor for the efficient business process actualisation and implementation of change (see 7.3.2).

7.4.3 Extension to Pettigrew et al.'s (1989) Model with BPM factors

Following the analysis of data and the construction of 2nd-order themes, an extension to the model of change of Pettigrew et al. (1989) could be conceptualised. The objective was to answer the research question concerning the method of implementing change in the Greek SOEs through the adoption of BPM. The analysis initially identified the factors of the context of change which were directly associated with the impact of BPM on CM. The factors that referred to the content and the process of change were generated from data collected in interviews and focus group discussions using the Socratic method. Following this method, the content and process of change were derived from the context of change.

The analysis shows that BPM could contribute to implementing change in Greek SOEs. The impact of BPM on the implementation of change can be visualised in Fig. 7. 1. The dotted line highlights the original model of change of Pettigrew et al. (1989). The context, content, and process of change were considered in understanding the impact of BPM on the implementation of change in the Greek SOEs.

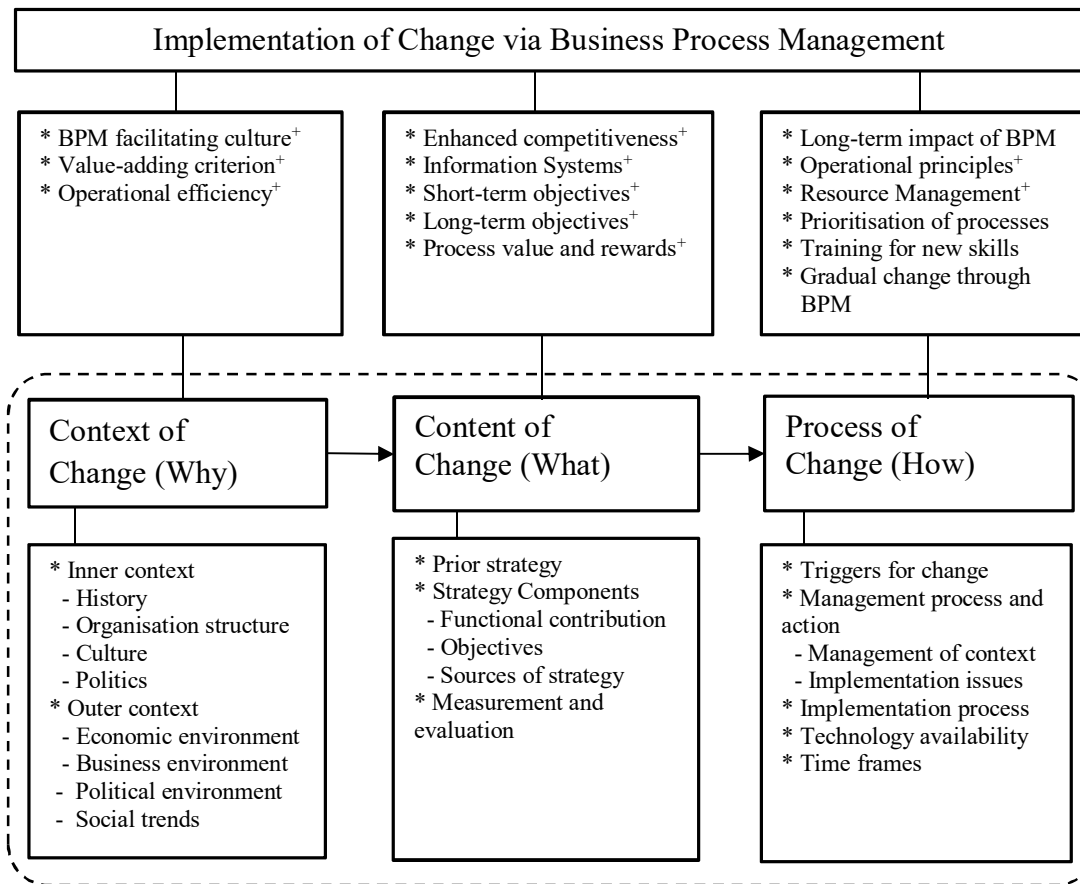


Fig. 7. 1. The method of implementing change in Greek SOEs using Business Process Management; the dotted line contains the original model of Pettigrew et al. (1989). The + symbol denotes 2nd-order themes.

• **Context of change factors that originate from BPM**

The original model of Pettigrew et al. (1989) viewed the organisation as a culture (i.e. a set of beliefs and values in the organisation). The data from AERO showed that BPM can have an impact on culture. For example, BPM could alleviate conflicts between corporate values (e.g. hierarchy and bureaucracy) and individual values (e.g. empowerment) and reduce cynicism at work and thus reduce job burnout. The politics in Pettigrew et al.’s (1989) model dealt with the distribution of power within the organisation. The data from AERO showed that one of the main reasons for implementing change could be the criterion of adding value during process implementation. The power of making decisions and implementing the changes could be given to those who could own, design and execute processes that add value to the process inputs and generate effective outcomes. Pettigrew et al.’s (1989) business environment referred to the general conditions within the industry to which the company belongs. AERO’s business environment demanded operational efficiency. This could be

achieved by moving from the old system of SOPs to the new system of business processes, by allocating resources such as equipment and personnel efficiently, and optimising the cost and the time required for process implementation.

- **Content of change factors that originate from BPM**

Pettigrew et al. (1989) suggested that the prior strategic initiatives (or those currently in progress) of the organisation to implement changes contribute to the content of change in the organisation. Enhancing the competitiveness of the Greek SOEs has been a topic placed very high on the government agenda during the last decade. AERO's top management should be committed to implementing changes to enhance competitiveness and concentrate on improving business processes continuously. One of the major challenges facing AERO is reducing government intervention in the company's operation. The implementation of BPM could provide a method of improving the competitiveness of the company and the top management could use this improvement as proof to convince the government to stop intervening.

The objectives in the content of the model of Pettigrew et al. (1989) refers to the targets the change will achieve. The analysis in AERO showed that short-term objectives and long-term objectives should be adopted corporately. Short-term objectives included the adoption of change agent attitudes by the process owners (i.e. being proactive and innovative), empowering process teams to implement change, and matching the right personnel with the appropriate tasks. Long-term objectives included developing policies to raise the esteem and ethical status of AERO among the population, so that it was not viewed as just a profit oriented organisation, and concentrating on cultivating trustworthy relationships among management and the rest of the employees. Further long-term objectives were the reduction of resistance to change, including reducing the influence of subcultures inhibiting change, and using internal marketing of processes as a method of understanding their value to the organisation.

The model of Pettigrew et al. (1989) incorporates the contribution of organisational functions such as the IT department to the implementation of change. The analysis indicated that AERO should have an information system that is straightforward and supportive to the implementation of an internal marketing of processes, and the operation of an effective document management system. The measurement and evaluation in Pettigrew et al's (1989) model includes the performance measurement indicators from the execution of business processes. For the evaluation of personnel in AERO, the data showed the need for a widely accepted performance related pay system using monetary reward based incentives for process

implementation, and a fair bonus scheme. Establishing a system for measuring the value of process output could help identify which processes should be implemented, instead of following seemingly random management decisions. Using the value of processes as a criterion for implementing them could strengthen employees' trust of management decisions.

- **Process of change factors that originate from BPM**

An important factor of the process of change in the model of Pettigrew et al. (1989) is the management of the context. This refers to the way the organisation operates in order to satisfy the requirements of the environment and is influenced by the history of the organisation. Certain operational principles such as meritocracy, harmonisation with the organisational environment, commitment to eliminate bureaucracy, and self-discipline were important for the management of context in AERO. The effective management of resources used in business processes was considered to be a way of resolving problems (such as the reduction of cost and time of process execution) associated with the implementation of change. The data showed that prioritising the processes in accordance with their perceived value by the customer was important in the implementation of process changes. Pettigrew et al.'s (1989) model considers the triggers of change to be the causes that push managers to initiate change. The respondents believed that such a trigger would manifest when the management focused on the medium to long-term benefits of process improvements, rather than short-term benefits. The availability of technology in the model of Pettigrew et al. (1989) refers to the technical means required to implement the changes. Information technology was considered important in AERO, and to a certain degree was considered adequate. However, it was important to have the specialised training to take advantage of this technology. The time frames in the model of Pettigrew et al. (1989) refers to the whole time required to implement the changes. The respondents in AERO suggested that despite the external pressures to change fast, the organisation should adopt a gradual change through BPM rather than a radical change approach.

**Chapter 8. Conclusions and Contribution to Knowledge: a New Model of
Change for the Greek SOEs.**

This chapter discusses how this research contributed to the extension of Pettigrew et al.'s (1989) model of context, content, and process in the management of strategic and operational change and competitiveness. The inductive analysis led to the development of a new conceptual model to explore change in Greek SOEs.

The objective of the research was to answer two primary research questions:

AQ AGP-CM: What role does Ancient Greek Philosophy play in facilitating or inhibiting change in the Greek SOEs?

BQ BPM-CM: How can change be implemented in the Greek SOEs through the adoption of Business Process Management?

This chapter provides a critical review of the research findings and the contribution to theory. Suggestions for future research studies in SOEs are also outlined.

This research project was an exploratory study of Change Management (CM) in Greek SOEs. It was established in chapter 2 that Ancient Greek Philosophy (AGP) had a major role to play in the reform of such organisations. In the model of Pettigrew et al. (1989), the organisation is perceived as a culture, which refers to the beliefs, meanings, and values among people in the organisation. The inductive analysis in chapter 6 showed that AGP exerts a strong influence on the organisational culture in the Greek SOEs. It was also established in chapter 7 that Business Process Management (BPM) is a preferred method of implementing change in the Greek SOEs. Such changes have the purpose to: (i) render the Greek SOEs financially independent of the state; and (ii) encourage SOEs to develop the capability to compete in the free market, with minimal governmental support. The stimulus to change the operation of Greek SOEs has stemmed mainly from the organisational environment (e.g. the government and the EU).

The first section discusses the extension of the model from the perspective of context (why), content (what), and process (how) of change. The second section discusses the limitations of the research and the development of the extended model, and how these limitations were overcome. The concluding remarks of this research project are given in the third section, and suggestions for future research work are provided in the last section.

8.1 The New Model of Change for the Greek SOEs

This section discusses how the new conceptual model of change for the Greek SOEs was synthesised. The starting point was the model of context, content, and process in the management of strategic and operational change and competitiveness by Pettigrew et al. (1989).

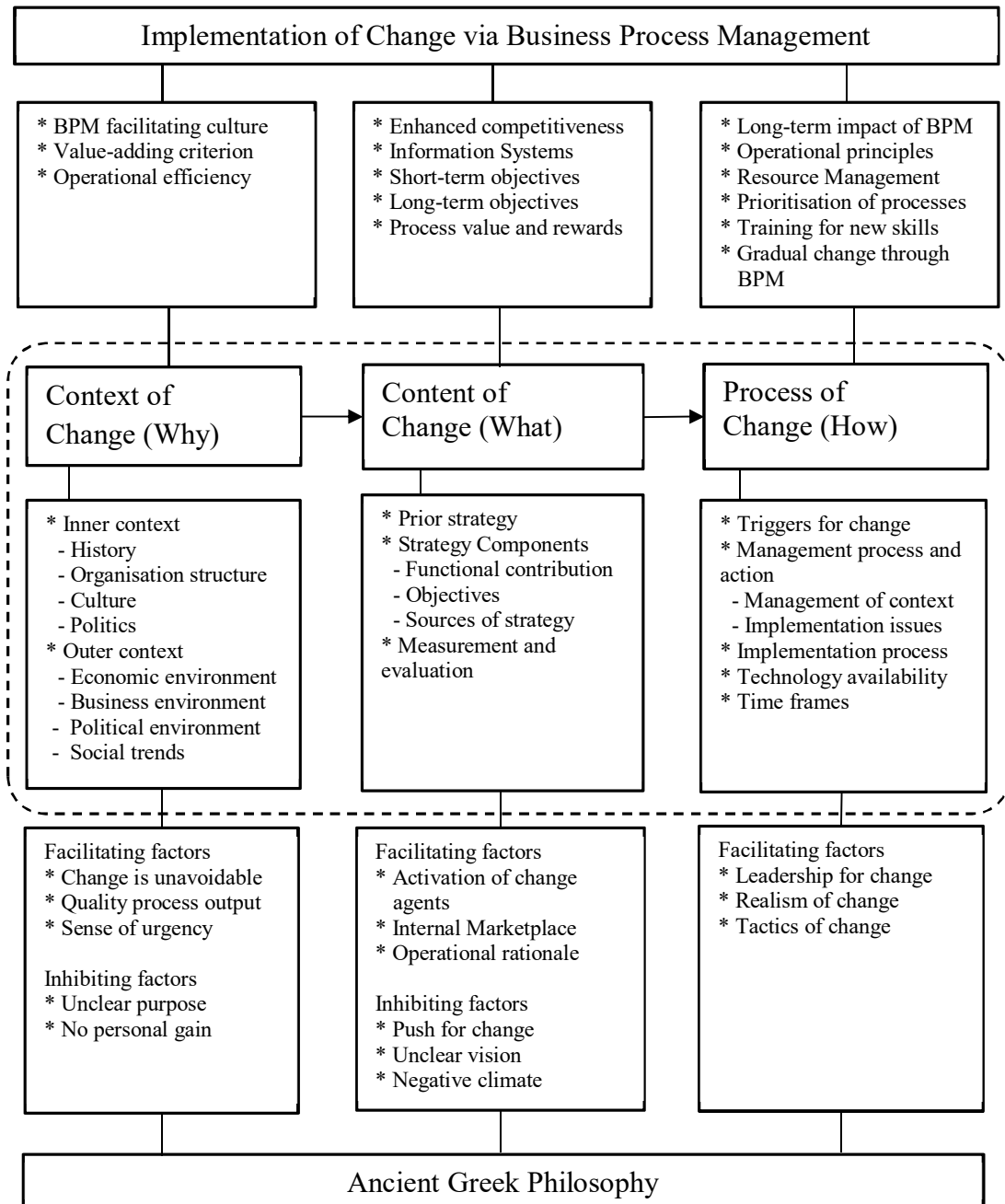


Fig. 8. 1. The new extended conceptual model of change for Greek SOEs; the dotted line contains the original model of Pettigrew et al. (1989).

Deductive research was initially conducted with the aim to collect and analyse data that could verify the degree of applicability of the model of change of Pettigrew et al. (1989) for

the Greek SOEs. The main purpose of deduction was to evaluate the applicability of the concepts discussed by Pettigrew et al. (1989), but not to use the analysis for extending the model, in line with the suggestion of Ketokivi and Mantere (2010).

Following the deductive approach, an inductive analysis of data were conducted. The latter analysis was used to extend the model of context, content and process of change developed by Pettigrew et al. (1989). This was consistent with the methodology followed by Iqbal (2003) and McCafferty (2013) to investigate change in British Aerospace and the British National Health Service respectively. Fig. 8. 1 shows the extended model of change for Greek SOEs, and it includes the original model of context, content, and process of change of Pettigrew et al. (1989) in the dotted line. The arrows between the context, content, and process in the original model denote the processual nature of change in the model of Pettigrew et al. (1989). This means that change can be a sequence of first understanding why change is needed, then negotiating what needs to change, and finally, formulating how to implement the change (Pettigrew et al., 2001; Iqbal, 2003; Paroutis and Pettigrew, 2007; Pettigrew, 2011).

Factors that emerged from the inductive analysis were associated with each of the processual components of change (context, content, and process) in the original model of Pettigrew et al. (1989). The factors that were found from the data analysis were thematically linked to the original model by lines, which denote a conceptual expansion of the model to be applicable for the case of Greek SOEs. The factors that originated from the data analysis of AGP were placed below the original model of Pettigrew et al. (1989), to denote the philosophical and cultural influence on change. The factors that emerged from the data analysis of BPM were positioned on the top side of the original model to denote that BPM is considered to be the method of implementing change in Greek SOEs.

The data from the inductive approach were categorised in a way to provide answers to the primary and secondary research questions. So, all the data were related to change management in Greek SOEs. Data were coded using the software NVivo, so that they were associated with AGP and BPM themes. For each of the two themes, the data were categorised into 1st -order themes that were providing direct answers to the secondary questions about the context, content, and process of change. The 1st -order themes that were related to AGP were critically evaluated to understand whether they were facilitating or inhibiting change. The researcher logically interpreted the underlying meaning of the data, in order to conclude whether each factor was facilitating or inhibiting to change. This was in line with the realism research philosophy (Fairclough et al., 2004; Jiang & Carpenter, 2013). This was conducted in order to answer the primary research questions (i.e. what role does Ancient Greek Philosophy play in facilitating or inhibiting change in the Greek SOEs?) There was no need to

carry out this step for the BPM related factors, since the relevant primary research question was about the implementation method of change (i.e. how can change be implemented in the Greek SOEs through the adoption of Business Process Management?) The factors related to AGP were summarised in Tables 6.1 to 6.3. Similarly, the factors related to BPM were summarised in Tables 7.1 to 7.3.

Some of the 1st-order themes that emerged from the data analysis were grouped into 2nd-order themes following the data structure approach of Corley and Gioia (2004) and Gioia et al. (2012). This categorising was aligned with the approach followed by Pettigrew et al. (1989) for constructing the original model of change, which was developed from research conducted in large organisations of the public sector and in SOEs. The 2nd-order themes relating to AGP were categorised according to whether the 1st-order themes were facilitators or inhibitors of change. This corresponds with the methodological approach of Miles & Huberman (1994) and Hunter et al. (2014). For example, a 2nd-order theme was classified as inhibiting change if all of the constituent 1st-order themes were found to be inhibiting change too. The 2nd-order themes and their constituent factors are listed in Tables 6.4 and 7.4. The 2nd-order themes, together with the 1st-order themes that could not be grouped into higher-order factors were put together to extend the original model of context, content, and process of change of Pettigrew et al. (1989) for the case of Greek SOEs.

8.2 Discussion of Findings

This section provides a critical comparison of the findings from the data collected from AERO, with findings from previous research on the respective impact of AGP and BPM on change management.

8.2.1 Comparison of the deductive findings with the original model

This subsection discusses the degree of similarities / differences between the themes that emerged from the deductive analysis of the data collected in AERO (see Table 5.5), and the original model of context, content, and process of change of Pettigrew et al. (1989). The data were historical and time dependent, as Pettigrew et al. (1989) argued they should be.

The contextual findings of the research were categorised into the inner and outer context, in accordance with the Pettigrew et al. (1989) model. The inner context of history, organisation structure, culture, and politics were explored in AERO. The data provided an understanding about the outer context of change, particularly the business and political environments of Greek SOEs. There were no data available that could highlight any social trends that could affect change in Greek SOEs. Data about the effect of the economic environment on change were fairly limited and related to the economic crisis in the country.

In the study of the content of change in Greek SOEs, the prior strategy and the current strategic objectives were explored, as the original model of change of Pettigrew et al. (1989) required. The data on the functional contribution to change were limited to marketing/sales, informatics, and human resources. The measurement and evaluation of change was limited to the use of key performance indicators in AERO. This was because the development of KPIs was at a very early stage to be able to extract useful information about the success of the change initiatives. There was limited data about the sources of strategy in the Greek SOEs compared to the original model of change of Pettigrew et al. (1989).

8.2.2 Comparison of the model extension with findings from previous research on the impact of AGP on CM

This subsection compares the themes that emerged from the inductive analysis of the impact of AGP on the context, content, and process of change in AERO (see Tables 6.1 to 6.3) with findings from previous research (see Tables 2.5 to 2.7). The conceptual comparisons are summarised in Table 8. 1.

	Themes from the literature review	Related 1st -order themes from inductive analysis (sections in brackets)
Context	Value of Objectives (Lear, 1998)	Direction and purpose of change are prerequisite (6.1.3)
	Personal Gain and Responsibility (Morris, 1998; Rammata, 2011)	Expecting to have individual gains (6.1.4)
Content	Embracing an Entrepreneurial Spirit (Zanakis et al., 2003; Tsakonas, 2012; Yetisen et al., 2015)	Activation of change agents (6.2.2)
	Internal Marketplace of Processes (Halal, 1994; Gounaris et al., 2010)	Internal marketplace of business processes (6.2.5)
Process	Socratic Dialogue (Skordoulis and Dawson, 2007)	Negotiation role of change agents (6.3.2)

Table 8. 1. Conceptual comparisons between the inductive analysis of the impact of AGP on change in AERO with findings from previous research.

- **Context of change**

The value of objectives discussed in Lear (1998) had a degree of similarity with the direction and purpose of change that emerged from the research results. In both cases, a plausible reason for supporting change was the understanding of the anticipated outcome of the change, and the alignment of that outcome with the long-term objectives of the organisation. The personal / individual gain that was identified by Morris (1998) and Rammata (2011) was also found to be a reason for implementing change in AERO. These gains could be monetary and/or the assignment of responsibility.

- **Content of change**

Embracing an entrepreneurial spirit discussed in Zanakis et al. (2003), Tsakonas (2012), and Yetisen et al. (2015), and the activation of change agents that emerged from the data were both found to be necessary for implementing changes in the Greek SOEs. The common ground between those two factors was the perception of the respondents in AERO that change agents were the most appropriate individuals to act in an entrepreneurial manner. The concept of an internal marketplace of business processes was identified in the literature review (Halal, 1994; Gounaris et al., 2010), and it also emerged from the data collection and analysis. Both the literature review and the data supportive to the establishment of an internal marketplace of processes for implementing changes.

- **Process of change**

The Socratic dialogue was identified from the literature review as a plausible method for implementing change. This was mainly because it had the potential of stimulating employees' involvement in the change process. Skordoulis and Dawson (2007) argued that the Socratic dialogue is a powerful tool to enhance employee involvement and commitment to collective change. The main enabler of change in Socratic dialogue is the ability to challenge established assumptions, doubt the validity of a single adopted truth and emphasise the multi-faceted nature of change processes (Buchanan & Dawson, 2007). Similarly, the negotiating ability of change agents was enhanced by the Socratic dialogue as a method for employee involvement. It was believed that such an approach would be more successful in implementing change, compared to an autocratic top-down approach.

8.2.3 Comparison of the model extension with findings from previous research on the impact of BPM on CM

This subsection compares the themes that emerged from the inductive analysis of the impact of BPM on the context, content, and process of change in AERO (see Tables 7.1 to 7.3) with findings from previous research (see Tables 3.5 to 3.7). These conceptual comparisons are summarised in Table 8. 2.

- **Context of change**

The estimation of cost and time could provide the justification for implementing certain changes (Manimala, 1989; Carland, 2007). Similarly, the anticipated cost and time implications could have an impact on the process design. A decision to change something may or may not generate the desired process outcome. If employees collectively suggest to implement a change and management agrees, it is important to stimulate employee participation, even if the desired outcome is not achieved the first time round (Luh, 2000; Bennis, 2003). Continuous process improvement embedded in BPM is expected to eventually generate the desired outcome. A relevant theme that emerged from the data was that focusing on the core value of processes could provide a widely accepted criterion among personnel to make decisions for change. Work engagement among employees was reviewed in Dylag et al. (2013) and the data showed that that it can eliminate the phenomenon of job burnout that is highly visible in Greek SOEs. The implementation of BPM could help alleviate conflicts between corporate values and individual values, and facilitate change. This was concluded by Ostroff (2007) and was also evident in the data. Glynn (1993) argued that changes which result from BPM should follow a simple rule of making sense, in order to be widely accepted. Similarly, the data in AERO indicated that the succession of activities in BPM implementation should make sense in order to adopt the suggested changes. Working in organisations where employees have high trust in management can create satisfaction, similar to a considerable increase in income; such satisfaction can reduce resistance to change (Helliwell and Huang, 2011). Similarly, the data showed that trust at work between employees and the management could eliminate the need to impose changes in the Greek SOEs.

	Themes from the literature review	Related 1st -order themes from inductive analysis (sections in brackets)
Context	Financing for change (Manimala, 1989; Carland, 2007)	Cost and time optimisation (7.1.4)
	Decision making mechanisms (Luh, 2000; Bennis, 2003)	Focus on core value of processes (7.1.5)
	Work engagement (Dylag et al., 2013)	Elimination of job burnout (7.1.3)
	Value conflicts avoidance (Ostroff, 2007)	Avoidance of value conflicts (7.1.3)
	Sense making (Glynn, 1993)	Meaningful succession of activities (7.1.4)
	Well-being and trust (Helliwell and Huang, 2011)	Trust at work (7.1.5)
Content	Change originators (Tsoukas, 2012)	Adopt change agent attitude (7.2.4)
	New values and new identity (Argyris, 1990; Tsoukas, 2012; Salteris, 2013)	Dual culture control (7.2.3)
	Change of established ways of work (Tsoukas and Chia, 2002; Tsoukas, 2012)	Reduction of resistance to change (7.2.2)
	Top management commitment (Al-Mudimigh, 2007; Buchanan, 2007; Zampetakis, 2007)	Top management commitment (7.2.4)
	Empowerment (Boyle, 1995; Alvesson and Willmott, 2002)	Empowerment of BPM teams (7.2.3)
	Internal marketing of processes (Varey and Lewis, 1999)	Internal marketing of processes (7.2.5)
Process	Radical change (Iqbal, 2003)	Long-term impact of BPM (7.3.4)
	Change agents (Cripe, 1993; Ershad, 2012)	Personal responsibility over resources (7.3.2)
	Business innovation (Kovacev, 2008)	Harmonisation with the organisational environment (7.3.3)
	Team working (Cusick, 2005)	Breaking interdepartmental barriers of resource ownership (7.3.2)

Table 8. 2. Conceptual comparison between the inductive analysis of the impact of BPM on change in AERO with findings from previous research.

- **Content of change**

Tsoukas (2012) looked at change originators as individuals who can deliver a new way of dealing with existing processes in order to avoid inefficiencies in the current operations. The data showed that the originators of change in the Greek SOEs were the change agents, who were expected to be positive, proactive, innovative, and demonstrated determination for change. New values such as efficiency, effectiveness, and rational business operations need to be aligned with the organisational environment (Argyris, 1990; Tsoukas, 2012; Salteris, 2013). The respondents indicated that such values also needed to be strongly embedded cultural elements to counterbalance the organisational subcultures that were detrimental or resistant to change. The data revealed that the established ways of working could increase the

resistance to change. Therefore, the established ways of working needed to be replaced by new processes, so that they became the accepted practice of operation (Tsoukas and Chia, 2002; Tsoukas, 2012). The data analysis showed that top management needs to commit to implementing BPM, which was also advocated by Al-Mudimigh (2007), Buchanan (2007) and Zampetakis (2007). Empowerment of process responsible teams and the corresponding process owners is essential (Boyle, 1995; Alvesson and Willmott, 2002). The data also confirmed the importance of empowerment, so that personnel can have freedom to make suggestions for change to top management, and then take action to facilitate organisational change. Varey and Lewis (1999) argued that the implementation of internal marketing of business processes was very important mainly because it can bring forward the entrepreneurial spirit in employees and accelerate change. Processes and employment conditions should be viewed as products to be marketed, and the management should think like a marketer when dealing with people that are expected to implement change (Varey and Lewis, 1999). Similarly, the data analysis showed that business processes were expected to be treated as internal services to be marketed, in the same way that product and services would be marketed externally in the free market.

- **Process of change**

Iqbal (2003) generated a radical change methodology for his case study of British Aerospace. This methodology emphasised the long-term impact of BPM on the operation of the organisation. BPM was viewed as a method of bringing about change in British Aerospace. Similarly, understanding the long-term impact of BPM on the operation of AERO was considered important, and BPM was viewed as a management method to bring about change in the Greek SOEs. Cripe (1993) and Ershad (2012) emphasised the importance of change agents in the success of any change programme involving BPM. The research respondents believed that the role of change agents during the implementation of BPM was considerably enhanced when they were delegated personal responsibility for handling resources in process execution. Kovacev (2008) argued that a critical success factor for a change programme is the emergence of innovative solutions that can eventually serve the needs of the customer better. The generation of business innovation was viewed by the research participants as a way of harmonising the company with its business environment. Cusick (2005) argued that introducing team working to support change was important in the public sector. This was mainly because teams were more effective in identifying problematic business processes and shared innovative ways to improve them. The research data from AERO indicated that team work can be facilitated by breaking down the interdepartmental

barriers, particularly those concerning the ownership and control of resources for the execution of business processes.

8.3 Validity and Reliability of the New Model of Change

This section provides a discussion about the limitations, the validity and the reliability of the research methodology that was adopted in order to generate the extended model of change. Reliability refers to whether the data collection and analysis techniques produce consistent findings (Saunders et al., 2012). Validity refers to the extent, to which the researcher has access to an interviewee's knowledge and experience, and is able to infer meanings that the participant intends to convey from the language used by that person (Saunders et al., 2012). According to Miles and Huberman (1994), the researcher should not influence the environment of the participants, neither become so embedded in the environment that he/she cannot be objective. There was a challenge for the researcher to completely satisfy the above requirements, since the author was both the researcher and a full time colleague of the participants. This challenge was greater when the author was taking up the role of participant as observer during the research project. Seale (1999) associated reliability of qualitative research with low-inference descriptors. Inference descriptors are associated with recording observations in a concrete manner, including verbatim accounts of what people say, in order to be able to draw conclusions from the data. If instead, there are a researcher's reconstructions of the general sense of what a participant said, there is a danger that the researcher's personal perspectives will influence the reporting. A limitation to the author being participant as observer during the focus group sessions was the possibility of observer error. According to Saunders et al. (2012), this is typical when the observer may be led unintentionally to misinterpret the recorded data, due to her/his overfamiliarity with the organisation where she/he is a member. Similarly, the possibility of observer bias cannot be ruled out. In this situation, due to the observer being part of the social world he/she studies, he/she cannot become detached and uses his/her own subjective view to interpret the data (Delbridge and Kirkpatrick, 1994).

According to Spano (2005), there is a threat to the reliability and validity of data collected through observation that relates to the presence of the observer. By simply being present, the researcher may affect the behaviour of those being observed. This may result in unreliable data. To circumvent this limitation, the researcher attempted minimal interaction

when he was participant as observer. He mainly tried to facilitate the conversation to allow it to progress. For instance, his opinion was asked to explain how a certain problem was overcome by other directorates, when a process was modelled. In this research project, the validity of data was checked by comparing with the published literature. The types of organisations reviewed had to be broad, as the literature review could not find similar studies conducted on Greek SOEs.

During focus group discussions at AERO, the most common limitations were that the participants either tended to lose track of the discussion, or felt excluded, or became upset with the direction the discussion took (as was predicted in Bolten, 2001). To minimise these limiting effects, the researcher concentrated on his facilitating role. For instance, when one person dominated the discussion, the researcher asked other participants about their opinions on the topic, in order to stimulate their involvement. The researcher paid attention to the evolution of the discussion and when this was getting far from the topic in focus, he asked a question to remind them of the discussion topic and redirect them towards that topic. A meeting room near the author's directorate offices was mostly the selected location of the meetings. The aim was to both underpin a neutral ground for discussion, as well as the relative dominance of the researcher's facilitating role.

One of the main concerns during this research project was what should the sample of people comprise in such an organisation, to ensure reliability and validity of the results. The researcher decided to focus the research on a sample of people that comprised directors and process facilitators in the organisation. There was indeed the capability of including many other people at various levels in AERO, ranging from blue and white collar workers to middle managers. Socrates argued that when people have no or very little knowledge about a topic, yet their opinions can influence a course of action about this topic (e.g. through polling or surveys), then those people should not be esteemed (not included) for determining the course of action (Plato(c), 427BC-347BC, 47a). This appears to contradict what Socrates also believed about everybody having the universal truth and ethos embedded in their psyche. This means that when somebody expresses an opinion or votes for something, then this opinion should be valued (Wooten and White, 1999). However, Socrates believed that people, first need to be able to reach the truth that is inside the psyche. In any case, Socrates was a proponent of letting everybody express their opinions. However, a critical overview of those opinions, as well as the background of the people, where the opinions come from, should be taken into consideration, before a course of action is selected. The issue was discussed further by Socrates by categorising opinions as: (a) being good opinions; or (b) being bad opinions, on the basis of either being factual or valued opinions. Yet, all opinions are integrated in a

person's knowledge within the psyche (Plato(c), 427BC-347BC). For example, a hypothesis based on opinions at the workplace may support the view that complex processes carried out by employees have higher probability of producing more frustration than simple processes do. This is a factual type of knowledge or opinion. Conversely, an opinion that suggests that change agents should have negotiating skills is knowledge based on a valued characteristic.

The Socratic teaching was imperative for the selection of the sample in AERO. In the Socratic dialogue with Crito, the example of an athlete who wanted to excel in his field was considered. Socrates asked whether the athlete should value the opinions of everybody, or value the opinions from his physician and trainer only (Plato(c), 427BC-347BC). Crito replied that the athlete should pay attention to his physician and the trainer, and not everybody else. The reason was that the specialists' opinions (praise, blame and directions) are significant, because they know the details of how to excel in the required field. In a similar way of thinking, the selected sample for data collection in AERO, comprised directors and process facilitators. The latter were actively involved in the change program and all of them were process owners. Their directors were also important, because they had the last word in authorising the processes, as they changed from procedures, and were prepared by the process facilitators. Furthermore, the directors were in many cases process owners and from an organisational point of view, they should possess the knowledge and experience to intervene in the creation and updating of the processes within their directorate. Therefore, the selected sample was the most appropriate, since they had the potential to possess the most valued opinions related to the main research project elements. Moreover, the sample was consistently available for the interviews during the research project.

Since the interviews were unstructured, there was some concern about the reliability of the data collected. In qualitative research, reliability is concerned with whether other researchers would group the same data under the same themes (Silverman, 2007). A possible response to the reliability limitation is that the findings derived from the interviews are not necessarily intended to be repeatable, since they reflect the reality at the time they were collected. The situation characterising the operation of the organisation may be subject to change (Marshall and Rossman 2010). Another limitation associated with interviews is to what extent the findings can be generalised to other organisations. Bryman (1988) argued that if a qualitative study is based on a relatively small sample, generalised conclusions may still be made. Furthermore, a small sample should not mean that a purely quantitative approach should be chosen instead. The capability to generalise qualitative research is strengthened by its association with theoretical propositions (Yin, 2009). During the research carried out in AERO, the main effort of the author was to relate the research project to existing theory.

According to Saunders et al. (2012), a frequent limitation of interviews and focus group discussions refers to the tone or body language of the interviewer, in a way that influences responses (interviewer bias). Similarly the interviewee bias cannot be ruled out. For example, negative perceptions about the interviewer may limit the openness to the responses. To minimise these limitations the research followed these steps:

- I. The author was prepared before going to the interviews and group discussions with a study of relevant literature about the subject that would be discussed. He was also knowledgeable about the organisational culture, both from his employment in AERO and previous long-term employment in another Greek SOE;
- II. The participants were always informed about the purpose of the interview and the group discussion and the core themes of discussion beforehand. The participants were also informed that it would be possible to expand towards other research themes, if that was desirable;
- III. The location of the interviews was in almost all cases at the participants' office, where they could feel more familiar with the area;
- IV. During the first interview with each participant, the opening discussion would be in a very relaxed atmosphere and some personal introductions would be made. It often involved some career background exchange. In consecutive interviews, the general climate would be relatively friendly. Emphasis would always be on the confidentiality issues and anonymity with respect to the academic research project;
- V. When participants were repeatedly responding with 'yes' or 'no' answers, the questions were phrased in an open way, as much as possible, asking for their opinions about the various themes;
- VI. When participants were very proud about their status in the company with tendencies of undermining the researcher, the latter would win the participants over and get them on board by emphasising that he is more interested in learning from a senior or more experienced person.

When data collection is via interviews, the validity and the associated limitations have to be taken into account. During all the dialogues, the researcher was very careful to pay attention and listen to the responses, with the aim to understand what each interviewee was talking about and why he/she was referring to a specific topic. Miles and Huberman (1994) noted that triangulation should be considered, in order to strengthen the validity of data. Triangulation refers to either using different groups of sources, or using different methods of data gathering (Yin, 2009). Triangulation of data in this research project was possible by

using two different types of participants (i.e. directors and process facilitators) to satisfy the variety of data sources. Furthermore, there were different methods of data collection during the ethnography research strategy: (a) unstructured interviews; (b) participant observation; and (c) company records. Nevertheless, one could argue that as far as sources are concerned, there is a limitation due to the fact that all participants were essentially colleagues in the same company. Similarly, it could be argued that the majority of data for the research project were collected from interviews.

Most of the data collection lasted for a period of about two and a half years until the second quarter of 2009. Many authors have suggested that the latest economic crisis became apparent in Greece by the beginning of 2010 (Argeitis and Nikolaidi, 2011; Varoufakis et al., 2011, Michalopoulou, 2014). Any systematic data collection for research purposes was very problematic after that period. As the first economic austerity measures were implemented in early 2010, employees in AERO were mostly preoccupied with the financial situation. Particularly, when the first salary reductions were imposed, employees were shocked by such an unprecedented situation in the Greek SOEs.

“Initially, when all this talk about pay cuts was out there, I thought this is never going to happen. We are under public sector protection here. [...] yet this is happening now. I can't believe it” (P06).

Shortly after the introduction of the austerity measures in 2010, AERO employees actively participated in numerous strike actions organised by the civil servants' confederation in Greece as a reaction to the economic crisis memorandums.

“I have never participated in any strike in my life. I have been working for 27 years in the public sector and Greek SOEs. Many actions like that have happened all this time, but I never participated in them. [...] now is my first time because what is happening is unbelievable” (P25).

As soon as the effects of the economic crisis in Greece impacted on people's livelihoods, most employees stopped participating in the interviews and the focus group discussions. Those who kept on coming to the interviews had very little interest in discussing change in the organisation. They were mostly turning any discussion towards the current economic and political situation in Greece.

“Can't you see that the whole country is sinking into poverty? After all these pay cuts and the extra taxation, I won't be able to pay the instalments for my mortgage. What change in the company can change the whole country?” (P27)

Even the researcher was affected by the general turmoil after the economic crisis. The objectivity of the researcher was affected since he was employed by AERO, which was one of the Greek SOEs affected by the economic crisis. The participant as observer role of the researcher was compromised by undervaluing any opinions that supported the austerity measures, simply because the researcher was against those measures. Therefore, following all of the above limitations in data collection during the economic crisis, it was decided to carry out the analysis of the data collected prior to the economic crisis only.

According to Simon and Francis (2001), there is a time and money limitation linked to gathering data (e.g. via interviews), and the data recording method may also be a limitation. For instance, taking notes was the selected recording method of all data at AERO. This could sometimes create a challenge in concentrating on questioning and listening to the responses, as notes had to be taken in parallel. There is a possibility of reduced accuracy of data recorded, due to the inability of writing down every single word every participant said. Unavoidably, every single word the participants said could not be recorded. A researcher who wants to offer his/her interpretation from secondary data in the future will not be able to access what was literally said in the interviews word by word. To minimise these limitations, audio recording was offered as an option to all participants. However, none of them wanted this option and their preference was respected. On the other hand, nobody had any objection to the researcher taking notes. Data recording by note taking during the interviews and focus groups required the researcher to spend about an hour immediately after each interview by himself, to read through the notes again. This ensured that all of the discussion was still fresh in the researcher's mind and he could add, or correct any information that was missing or was not accurately recorded during the interview. One could argue that there may be a limitation in note taking due to the need of translating the discussion that took place in Greek. The researcher has received speedwriting training during his military service in the air force. This experience has allowed him to write up to 60 words per minute, for relatively short periods of time, by using techniques such as condensing words, and omitting syllables. Note taking was much more challenging during the focus group discussions, compared to the one-to-one interviews. During the latter, it was possible to stop the interviewee in order to take a note of what was said, and even ask for a repetition. This was rarely feasible during focus group dialogues, as the situation was much more dynamic. This is why the researcher concentrated more on the observer role, rather than the participant role in focus groups. The abbreviated notes were converted into proper transcripts for the purposes of clarity, after the data collection had taken place.

The dialogues took place in Greek and the notes had to be in Greek too, so that the organisation can have access to the records later on, if needed. The notes with the participants' quotes were translated into English. According to Usunier (1998), the following parameters require the researcher's attention, when translating research data:

- Lexical meaning refers to being precise, when words of one language can have more than one meaning in another language;
- Idiomatic meaning is about the meaning given to a sequence of words in one language that may mean nothing, or something else in another language;
- Experiential meaning refers to terminology that is obvious to the participants using a certain language, in their everyday life, without necessarily being comprehensible in another language, when translated word by word;
- Grammar and syntax need to be used correctly when translation takes place, in order to generate a meaningful outcome for the reader of the target language.

The translation that was used in this research project was what Usunier (1998) referred to as direct translation (from source to target language). This is the type of translation that takes into account the above parameters and has the main advantage of easy and relatively inexpensive implementation. The main disadvantage is the possibility of discrepancies between the source and the target text, particularly relating to the meaning. However, the researcher is confident that there was minimal loss of the data meaning in the translation. The researcher has spent about 10 years in full-time higher education in U.K. universities, both at undergraduate and post-graduate levels. The researcher has obtained formal qualifications in the English language and has received training in English for business. Furthermore, when there was any doubt, online translation services were used (e.g. google translator).

8.4 Conclusions

The European Union (EU) and Greece's international creditors have been exerting much pressure on the government to move forward with reforms in the public sector and the associated State Owned Enterprises (SOEs). Change Management (CM) in the Greek SOEs is vital for this transformation and their survival. This research project has recognised that Ancient Greek Philosophy still has a strong influence on how many Greek people interpret issues and events in their everyday working lives. It is, therefore, important for management

to recognise the underlying importance of AGP, and to draw upon these philosophical roots to frame effective change management policies in Greek SOEs. Business Process Management (BPM) has been the method of implementing change in Greek SOEs. There is a vast amount of literature about CM, AGP, and BPM. However, no study could be found about the influence of AGP and the impact of BPM on CM implementation, particularly for the case of Greek SOEs. The CM initiatives that have been attempted in those organisations in the past have proven to have little or no success. The main reasons have been the underlying cultural background that is nationally and organisationally unique, as well as the governmental intervention in the operation of those organisations. The research project was carried out in a large Greek SOE, specialising in the aerospace sector, and was fictitiously named AERO, for confidentiality purposes.

Two primary research questions were generated to address the gap in the literature. The research approach that was adopted to answer these questions was a deductive analysis followed by an inductive analysis of data. An extended model of change for the Greek SOEs was generated from the model of context, content, and process in the management of strategic and operational change and competitiveness developed by Pettigrew et al. (1989). The answers to the primary research questions are summarised below:

AQ AGP-CM: What role does Ancient Greek Philosophy play in facilitating or inhibiting change in the Greek SOEs?

The view that change is unavoidable has its roots in Ancient Greek Philosophy. This is a philosophical concept that could be exploited by management to explain why change is required. If employees understand what is the organisation's long-term purpose or vision of change, it could make it easier to implement change programmes. Employees would be able to assess the benefits, or disadvantages to them of the proposed changes. The economic crisis and the pressure from the EU to implement changes in the Greek SOEs can generate a sense of urgency that may act as a motivator for change. The demand from the business environment for high quality business process outputs could also act as a facilitating factor in implementing change. The usual practice by management to push for change rather than removing operational obstacles to change (e.g. bureaucracy and complexity) can be an inhibitor to change implementation. The establishment of an internal marketplace of business processes could satisfy the requirements of process performance measurement that could facilitate change. Currently, change agents exist but they are dormant; their activation and assignment of leadership roles could help foster change. The management should proactively take decisions about changes in the operation of the organisation that are meaningful to the

employees. Following the management decisions, employees should understand what are the long-term benefits to the organisation. This could facilitate the participation of employees in the implementation of change. There are social and psychological issues associated with the uncertainties that change can bring. Management needs to address these issues to promote the positive benefits of change (perhaps, by referring back to aspects of AGP supporting change) to avoid the development of negative mind-sets that hinder change. Bureaucracy and resistance to change are issues that need to be dealt with and leaders of change need to have a realistic approach and not have too high expectations of overcoming those issues easily. For example, using effective inter-departmental communication, abolishing wasteful activities, and empowering team members can be facilitating factors in change implementation.

BQ BPM-CM: How can change be implemented in the Greek SOEs through the adoption of Business Process Management?

BPM could help alleviate conflicts between corporate values (e.g. hierarchy and bureaucracy) and individual values (e.g. empowerment) and reduce cynicism at work and thus contribute to a reduction of job burnout. One of the main reasons for implementing change could be the criterion of adding value during the development or restructuring of processes. The power of making decisions and implementing the changes could be delegated to those who could own, design and execute processes that add value to the process inputs and generate effective outcomes. The business environment of the organisation demands operational efficiency. This could be achieved by moving from the old system of SOPs to the new system of business processes, by allocating resources such as equipment and personnel efficiently, and optimising the cost and the time required for process implementation. The top management should be committed to implement changes to enhance competitiveness and concentrate on improving business processes continuously. One of the major challenges facing the Greek SOEs is government intervention in the companies' operations. The implementation of BPM could provide a method of improving the competitiveness of SOEs. Top management could use this improvement as proof to convince the government that further intervention is not necessary.

Immediate corporate objectives include the adoption of change agent attitudes (i.e. being proactive and innovative), empowering process teams to implement change, and matching personnel with specific skill-sets to the appropriate tasks. Long-term corporate objectives include changing the public perception of the organisation so that it is viewed as a highly esteemed institution in the society and not just a profit-oriented organisation, and concentrating on cultivating trustworthy relationships between management and the rest of the

employees. Further long-term objectives were the reduction of resistance to change, managing and reducing the influence of subcultures resisting change, and using internal marketing of processes as a method of understanding their value to the organisation. The information system should be straightforward and supportive to the implementation of an internal marketing of processes, and the operation of an effective document management system. The information system should also keep track of performance measurement indicators from the execution of business processes (e.g. KPIs). A widely accepted performance related pay system using monetary reward based incentives to promote process implementation, and a fair bonus scheme to encourage and reward achievement (e.g. process improvements) is required. Establishing a system for measuring the value of process output could help identify which processes should be implemented and improved first. Currently, employees have difficulty in understanding the logic behind management decisions for change. Using the value of processes as a criterion of prioritising and implementing changes could strengthen the trust of employees towards management decisions.

Certain operational principles such as meritocracy, harmonisation with the organisational environment, commitment to eliminate bureaucracy, and self-discipline are important for effective change implementation. The effective management of resources used in business processes can be a way of resolving problems (such as the reduction of cost and time of process execution) associated with the implementation of change. Prioritising the processes in accordance with their perceived value by the customer is important in bringing about change. It is important to provide specialised training to personnel to take advantage of technology to be used in the future. Despite the external pressures to change fast, the organisation should adopt a gradual change through implementing BPM rather than a radical change approach.

8.5 Future Work

A conceptual model for implementing change in the Greek SOEs was generated from the deductive and inductive analyses of the data. The inductive analysis was used to extend the model of context, content, and process of change developed by Pettigrew et al. (1989). The data were collected from one Greek SOE (AERO S.A.) The extended model needs to be tested in the future in other Greek SOEs.

The implementation of BPM in AERO has been a slow and gradual process. During the course of this research project, it has not been possible to consistently generate data that can evaluate the effectiveness of BPM in bringing about change. BPM typically uses KPIs to evaluate the impact of process improvements on organisational outcomes. The consistent measurement and evaluation of KPIs has not yet been conducted in AERO. This is mainly because Greek legislation does not explicitly require it. Therefore, a systematic application of KPIs to monitor and measure the efficiency of the Greek SOEs is needed in the future to be able to evaluate the impact of BPM in facilitating change.

The most challenging aspects of validating this research in either AERO or in other Greek SOEs are the establishment of an internal marketplace of processes, the implementation of internal marketing of processes, and a reward system that supports these changes. There are currently legal and internal political restrictions on implementing change in the Greek SOEs, particularly those that are wholly owned by the state. However, a novel reward system might not find such a barrier in Greek SOEs, where the state holds only a portion of the ownership. If labour legislation restrictions are relaxed in Greek SOEs a new reward system may be implemented. Furthermore, the government has recently announced new plans for reforms in SOEs, which may relax many legal operating restrictions, should they go forward. The announced plans are mainly a result of pressures from the EU and from international financial creditors to render the Greek SOEs more competitive.

Future research could consider how effective the pressure from the EU and the government has been in promoting change in Greek SOEs? Further, what policy changes have been implemented by top management to support and sustain these changes? In particular, this could include Human Resource Management policies that provide assistance and training to engage staff in change initiatives. Research could also investigate the narrative used by management to underpin these change policies. For example, are there any references to Ancient Greek Philosophy to justify and inspire staff to accept change? Finally, it is important to understand what kind of skills and what kind of individuals are required to manage change in the Greek SOEs.

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